License Notifications for Axeda Release(s): Axeda® Platform 6.6 and Axeda M2M Connectivity 6.6

LICENSING:

Axeda's software and services, including, but not limited to, Axeda's Machine Cloud®, the Axeda® Platform and Axeda® M2M Connectivity software (collectively, "Axeda Products") and the Questra® IDM software ("IDM Software") are protected by contract law, copyright laws, and international treaties. Axeda Products and IDM Software are supplied under license and/or services contracts with Axeda's customers and only users authorized under the applicable contract are permitted to access and use the Axeda Products and IDM Software. Unauthorized use and distribution may result in civil and criminal penalties.

GOVERNMENT RESTRICTED RIGHTS LEGEND:

If the customer or any end user is a U.S. federal government end user, Axeda's Machine Cloud and all of the Axeda software are a "Commercial Item" as that term is defined at 48 C.F.R. §2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation", as those terms are used in 48 C.F.R. §12.212 or 48 C.F.R. §227.7202. Consistent with 48 C.F.R. §12.212 or 48 C.F.R. §227.7202-1 through 227.7202-4, as applicable, such Services and all such software are licensed to customers and end users only with those rights as expressly provided under the terms and conditions of the applicable software license or services subscription agreement.

THIRD PARTY LICENSES AND LICENSE NOTIFICATIONS:

Portions of the Axeda software include one or more of the third party software programs identified below. Each such identified software program is subject to and governed by the notices, terms and conditions listed below its reference. **Unless expressly stated otherwise, these terms and notices do not apply to any proprietary Axeda Corporation software.**

This document is subject to change. You are responsible for checking the Axeda release notes and the open source listing published on the Axeda support portal from time to time for additions and deletions from the following list.

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
ActiveMQ	5.3.2, 5.8 activemq-pool-5.2.0.jar activemq-protobuf-1.0.jar activemq-core-5.3.2.jar activemq-camel-5.2.0.jar	Apache v2.0	*ActiveMQ*	Axeda® Enterprise Server
Activemq activeio (org.apache.active mq)	activeio-core:3.1.2	Apache v2.0	*Activemq activeio*	Axeda® Enterprise Server
Advanced Callout Component	Callout.as (10/8/2009)	MIT License	*Advanced Callout Component*	Axeda® Enterprise Server
Ant	ant-1.7.0.jar ant-junit 1.7.0.jar ant-launcher-1.7.0.jar	Apache v2.0	*ANT*	Axeda® Enterprise Server (Groovy)
Ant-Contrib	ant-contrib-1.0b3.jar	Apache v2.0	*ANT*	Axeda® Policy Server

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
ANTLR	antlr-2.7.7.jar	ANTLR 2 license (Public domain)	*ANTLR 2*	Axeda® Enterprise Server
	antlr-runtime-3.4.jar	ANTLR3 license (BSD)	*ANTLR 3*	Axeda® Enterprise Server
AOP	aopalliance-1.0.jar	Public Domain License	*AOP*	Axeda® Enterprise Server, Axeda® Codec Server (included with Axeda® AnyDevice Service)
Apache CXF	cxf-api-2.5.1.jar cxf-common-utilities-2.5.1.jar cxf-rt-bindings-soap-2.5.1.jar cxf-rt-bindings-xml-2.5.1.jar cxf-rt-core-2.5.1.jar cxf-rt-databinding-aegis-2.5.1.jar cxf-rt-databinding-jaxb-2.5.1.jar cxf-rt-frontend-jaxws-2.5.1.jar cxf-rt-frontend-simple-2.5.1.jar cxf-rt-bindings-http-2.5.1.jar cxf-rt-management-2.5.1.jar cxf-rt-transports-common-2.5.1.jar cxf-rt-transports-http-2.5.1.jar cxf-rt-ws-addr-2.5.1.jar cxf-rt-ws-security-2.5.1.jar cxf-tools-common-2.5.1.jar cxf-tools-validator-2.5.1.jar cxf-tools-wsdlto-core-2.5.1.jar cxf-tools-wsdlto-databinding-jaxb-2.5.1.jar cxf-tools-wsdlto-frontend-jaxws-2.5.1.jar cxf-rt-transports-jms-2.5.1.jar cxf-rt-transports-local-2.5.1.jar	Apache v2.0	*Apache CXF*	Axeda® Enterprise Server
Apache HttpComponents	httpclient-4.0.1.jar httpcore-4.0.1.jar	Apache v2.0	*Apache HttpComponents*	Axeda® Enterprise Server
Apache HttpComponents	httpclient-4.2.3.jar httpcore-4.2.3.jar	Apache v2.0	*Apache HttpComponents*	Axeda® Connected Access SDK
Apache HttpComponents	httpclient-4.3.1.jar httpcore-4.3.1.jar	Apache v2.0	*Apache HttpComponents*	Axeda® Codec Server (included with Axeda® AnyDevice Service)
Apache Mina	sshd-core-svn-rev-1167185.jar mina-core-2.0.4.jar	Apache v2.0	*Apache Mina / Apache Mina SSHD*	Axeda® Enterprise Server
Apache Santuario	xmlsec- 1.5.1.jar	Apache v2.0	*Santuario*	Axeda® Enterprise Server
Apache xbean	Xbean-spring-3.4.jar	Apache v2.0	*Apache XBean*	Axeda® Enterprise Server
ASM	asm-3.2.jar; asm3-3.3.0.jar ,	BSD License	*ASM*	Axeda® Enterprise Server (Groovy)
ASM	asm-3.1.jar	BSD License	*ASM*	Axeda® AnyDevice Codec

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
AspectJ	aspectjrt-1.5.3.jaraspectjweaver-1.5.3.jar	EPL v1.0	*AspectJ*	Axeda® Enterprise Server
Axis	axis-jaexrpc-1.4.jar	Apache v2.0	*Axis*	Axeda® Enterprise Server, Axeda® Enterprise SDK
Axis	axis.jar, axis-jaxrpc-1.4.jar saaj.jar (all version 1.2RC2)	Apache v2.0	*Axis*	Axeda® Global Access Server
Axis	axis.jar, jaxrpc.jar, saaj.jar (all version 1.3) (*Additional jars distributed with Axeda® Policy Server but not used. These will be removed in a future build: axis-ant.jar, axis-schema.jar, soap.jar*)	Apache v2.0	*Axis*	Axeda® Policy Server
beanshell	bsh-2.0b4.jar	Dual License (Sun Public license and LGPL)	*Beanshell*	Axeda® Enterprise Server
BlazeDS	cfgatewayadapter.jar	LGPL v3	*BlazeDS*	Axeda® Policy Server
BouncyCastle	bcprov-jdk15-140.jar	MIT X11	*BouncyCastle*	Axeda® Enterprise Server
C3p0	c3p0-0.9.1.jar	LGPL v2.1	*C3p0*	Axeda® Enterprise Server
Camel	activemq-camel-5.2.0.jar camel-core-2.10.2.jar camel-jms-2.3.0.jar camel-spring-2.3.0.jar camel-jboss6-2.3.0.jar	Apache v2.0	*Camel*	Axeda® Enterprise Server
Castor (org.exolab)	Implementation-Version:0.9.3.19	Castor License	*CASTOR*	Axeda® Enterprise Server, Axeda® Policy Server
Castor	castor-core-1.3.2.jar castor-xml-1.3.2.jar	Apache v2.0	*CASTOR*	Axeda® Policy Server
CFGateway	cfgatewayadapter.jar	Covered in BlazeDS license	*BlazeDS*	Axeda® Enterprise Server
Cglib	cglib-2.1_3.jar cglib-nodep-2.1_3.jar	Apache v2.0	*CGLIB*	Axeda® Enterprise Server
Commons	commons-pool-1.4.jar commons-math-2.2.jar commons-beanutils-core-1.7.0.jar commons-configuration-1.6.jar commons-fileupload-1.2.1.jar commons-jxpath-1.3.jar commons-net-2.0.jar commons-httpclient-3.0.1.jar commons-lang-2.6.jar	Apache v2.0	*Commons-Apache*	Axeda® Enterprise Server
Commons – Pool	commons-pool-1.5.4.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Commons - Apache	commons-discovery-0.2 commons-el-1.0.jar commons-logging-1.0.jar commons-validator-1.1.4.jar	Apache v1.1	*Commons-Apache*	Axeda® Enterprise Server
Commons - Apache	commons-digester-1.8.jar commons-io-1.4.jar	Apache v2.0	*Commons-Apache*	Axeda® Enterprise Server
Apache Commons Net	commons-net-3.3.jar	Apache v2.0	*Commons-Apache*	Axeda® AnyDevice Codec
Commons – Bean	commons-bean-utils.jar version 1.6-dev	Apache v1.1	*Commons-Apache*	Axeda® Policy Server
Commons - Beanutils	commons-beanutils-1.8.3.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server
Commons – Cli	commons-cli-1.2.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server, Axeda® Enterprise Server
Commons – Codec	commons-codec-1.2.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server
Commons – Codec	commons-codec-1.3.jar	Apache v2.0	*Commons-Apache*	Axeda® Global Access Server
Commons – Codec	commons-codec-1.3-signed.jar	Apache v2.0	*Commons-Apache*	Axeda® Enterprise Server
Commons – Codec	commons-codec-1.6.jar	Apache v2.0	*Commons-Apache*	Axeda® Connected Access SDK
Commons – Collections	commons-collections.jar version 2.1	Apache v1.1	*Commons-Apache*	Axeda® Policy Server, Axeda® Global Access Server
Commons – Collections	commons-collections-3.2.1.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server, Axeda® Enterprise Server
Commons - Compress	common-compress-1.4.1.jar	Apache v2.0	*Commons-Apache*	Axeda® Codec Server (included with Axeda® AnyDevice Service)
Commons – Digester	commons-digester.jar version 1.3	Apache v1.1	*Commons-Apache*	Axeda® Global Access Server
Commons – Discovery	commons-discovery-0.5.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server
Commons - HTTP Client	commons-httpclient-3.0.1.jar commons-httpclient-3.1.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server
Commons – Lang	commons-lang-3.1.jar	Apache v2.0	*Commons-Apache*	Axeda® Codec Server (included with Axeda® AnyDevice Service)
Commons – Lang	commons-lang-2.6.jar	Apache v2.0	*Commons-Apache*	Axeda® Policy Server
Commons – Lang	commons-lang-2.0.jar	Apache v1.1	*Commons-Apache*	Axeda® Global Access Server
Commons – Logging	commons-logging.jar version 1.0	Apache v1.1	*Commons-Apache*	Axeda® Policy Server
Commons – Logging	commons-logging.jar version 1.0	Apache v1.1	*Commons-Apache*	Axeda® Global Access Server
Commons – Logging	commons-logging-1.1.1.jar	Apache v1.1	*Commons-Apache*	Axeda® Policy Server, Axeda® Connected Access SDK

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Commons – Validator	commons-validator.jar Version 1.1-dev	Apache v1.1	*Commons-Apache*	Axeda® Global Access Server
Concurrency Backport	backport-util-concurrent-2.1.jar concurrent-1.0.jar	Creative Commons Public Domain License	*Concurrency Backport*	Axeda® Enterprise Server
Dom4J	dom4j-1.6.1.jar	Dom4J License	*DOM4J*	Axeda® Enterprise Server
Eclipse JDT Java Compiler	ecj-3.7.2.jar	EPL 1.0	*AspectJ*	Axeda® Global Access Server Axeda® Policy Server
EHCache	ehcache-core-2.7.4.jar ehcache-jgroupsreplication-1.7.jar ehcache-jmsreplication-0.5.jar	Apache v2.0	*Ehcache*	Axeda® Enterprise Server
Expat	1.2	MIT License	*EXPAT*	Axeda® Agent Toolkit (also known as Axeda® Agent Embedded)
EZMorph	ezmorph-1.0.6.jar	Apache v2.0	*EZMorph*	Axeda® Enterprise Server Axeda® Platform (SDK v2)
Flex	Flex version 3.5	MPL 1.1	*Flex*	Axeda® Connected Product Management Applications
Flex	Flex version 4.6	MPL 1.1	*Flex*	Axeda® Enterprise Server, Axeda® Policy Server
FreeMarker	freemarker-2.3.9.jar	BSD	*Hamcrest (BSD)*	Axeda® Policy Server
GeoTools	gt-api-2.5.2.jar gt-epsg-wkt-2.5.2.jar gt-metadata-2.5.2.jar gt-referencing-2.5.2.jar	LGPL v2.1	*GEOTOOLS*	Axeda® Enterprise Server
GeoTrust Root Certificates	*http://www.geotrust.com/resources/root-certificates/*	Root Certificate License Agreement	*Custom (Symantec)*	Axeda® Agent
Geronimo	geronimo-j2ee-management_1.1_spec-1.0.1.jar geronimo-javamail_1.4_spec-1.7.1.jar geronimo-jms_1.1_spec-1.1.1.jar geronimo-jta_1.0.1b_spec-1.0.1.jar	Apache v2.0	*Geronimo*	Axeda® Enterprise Server
Groovy	groovy-all-1.8.6.jar	Apache v2.0	*GROOVY*	Axeda® Enterprise Server (Groovy)
Google Guava	guava-14.0.1.jar	Apache v2.0	*Google Guava*	Axeda® AnyDevice Codec
Google Guice	guice-3.0.jar	Apache v2.0	*Google Guice*	Axeda® Codec Server (included with Axeda® AnyDevice Service)
gSoap	2.7.13	gSOAP Commercial Software Development License	commercial license	Axeda® Agent

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Hamcrest Core	hamcrest-core-1.3.jar	BSD 3-Clause License	*Hamcrest (BSD3)*	Axeda® Enterprise Server, Axeda® Connected Access SDK
Harmony	Apache Harmony ASN.1 Framework version 6.0.1 (harmony-asn1-6.0.1.jar)	Apache v2.0	*Harmony*	Axeda AWP Java Toolkit
Hibernate	hibernate-c3p0-3.3.2.ga.jar hibernate-core-3.3.2.ga.jar hibernate-ehcache-3.3.2.ga.jar hibernate-jbosscache-3.3.2.ga.jar hibernate-jbosscache2-3.3.2.ga.jar hibernate-jmx-3.3.2.ga.jar hibernate-oscache-3.3.2.ga.jar hibernate-proxool-3.3.2.ga.jar hibernate-swarmcache-3.3.2.ga.jar	LGPL v2.1	*Hibernate*	Axeda® Enterprise Server
HibernateSpatial	hibernate-spatial-1.0-M2.jar hibernate-spatial-oracle-1.0-M2.jar	LGPL v2.1	*Hibernate Spatial*	Axeda® Enterprise Server
Hibernate Validator	hibernate-validator-4.3.1.Final.jar	Apache v2.0	*Hibernate Validator*	Axeda® AnyDevice Codec
Hibernate Validator Annotation Processor	hibernate-validator-annotation-processor-4.3.1.Final.jar	Apache v2.0	*Hibernate Validator Annotation Processor*	Axeda® AnyDevice Codec
HSQL	hsqldb-2.2.9.jar	BSD License	*HSQL*	Axeda® Policy Server
HTTPBuilder	http-builder-0.5.0.jar	Apache v2.0	*HttpBuilder*	Axeda® Platform (SDK v2)
HTTPCore	httpcore-4.2.jar	Apache v2.0	*HttpCore*	Axeda® Codec Server (included with Axeda® AnyDevice Service)
IBM	IBM BI 10.2 components IBM Cognos components Including: cognos-axis-10.2.jar cognos-client-10.2.jar (See *commercial license* for details.)	See commercial license	*Commercial license*	Axeda® Enterprise Server
Info-Zip	zip32.dll unzip32.dll	Info-Zip License	*Info-Zip*	Axeda® Access Screen Sharing (Axeda® Desktop Server and Axeda® Desktop Viewer modules) (for ServiceLink 5.2 and later)
Jackson	jackson-core-asl-1.9.5.jar	Apache v2.0	*Jackson (core)*	Axeda® Enterprise Server
Jackson-core	jackson-core-2.2.0.jar	Apache 2.0 or LGPL 2.1	*Jackson (annotations, jars-xml-providers)*	Axeda® AnyDevice Codec
jackson-datatype-joda	jackson-datatype-joda-2.2.0.jar			
jackson-jaxrs-base	jackson-jaxrs-base-2.2.0.jar; jackson-jaxrs-1.9.0.jar			

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
jackson-jaxrs-xml-provider Jackson JAX-RS JSON Provider	com.fasterxml.jackson.jaxrs:jackson-jaxrs-xml-provider:jar:2.1.1 jackson-jaxrs-json-provider-2.2.0			
jackson-databind	com.fasterxml.jackson.core:jackson-databind:jar:2.1.1 jackson-databind-2.2.0.jar			
jackson-dataformat-xml	com.fasterxml.jackson.dataformat:jackson-dataformat-xml:jar:2.1.1			
jackson-mapper-asl	jackson-mapper-asl-1.9.0.jar			
jackson-module-jaxb-annotations	com.fasterxml.jackson.module:jackson-module-jaxb-annotations:jar:2.1.1 jackson-annotations-2.2.0.jar			
jackson-xc	jackson-xc-1.9.0.jar			
Jakarta ORO	oro-2.0.7.jar	Apache v1.1	*Jakarta ORO*	Axeda® Enterprise Server, Axeda® Enterprise SDK
Jakarta Taglibs	jstl-1.1.2.jar standard-1.1.2.jar	Apache v2.0	*Jakarta Taglibs*	Axeda® Enterprise Server
Jakarta Taglibs	jstl.jar, standard.jar (version 1.0.3)	Apache v2.0	*Jakarta Taglibs*	Axeda® Global Access Server Axeda® Policy Server
Java Advanced Imaging Image I/O Tools (JAI)	jai-core-1.1.3.jar	Sun Binary Code License	*Java Advanced Imaging*	Axeda® Enterprise Server
Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files 6 (sunjce_provider (com.sun.crypto)	JCE 1.0 sunjce_provider-1.0.jar	Oracle Binary Code License	*Java Cryptography Extension (JCE)*	Axeda® Enterprise Server
Java Expression Parser	jep-3.3.0.jar	JEP Binary License	*Java Expression Parser*	Axeda® Enterprise Server
Java Mail and Activation	mail-1.4.jar	Sun Software License Agreement	*Java Mail*	Axeda® Enterprise Server, Axeda® Policy Server
	activation-1.1.jar	Sun Software License Agreement	*Java Activation Framework*	Axeda® Enterprise Server, Axeda® Policy Server
Java REST Annotations (JRA) (org.codehaus)	jra:1.0-alpha-4	Apache v2.0	*JRA*	Axeda® Enterprise Server
Java SE Development Kit (JDK)	1.4; jcert-1.0.jar ldapcontr-1.0.jar	Oracle Binary Code License	*JDK*	Axeda® Agent
Java Tar	Javatar-2.5.jar	Public domain	*Java Tar*	Axeda® Enterprise Server
Java Topology Suite (vividsolutions)	jts-1.10.jar	LGPL v2.1	*Java Topology Suite*	Axeda® Enterprise Server

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Java Validation API	validation-api-1.0.0.GA.jar	Apache v2.0	*JAVA Validation API*	Axeda® AnyDevice Codec
Java3D	vecmath-1.3.1.jar	Sun Binary Code License	*JAVA3D*	Axeda® Enterprise Server
JAXB	jaxb-impl-2.2.5.jar, jaxb-xjc-2.2.5.jar	CDDL v1.1	*JAXB*	Axeda® Enterprise Server
Jaxen	1	Apache v1.1	*JAXEN*	Axeda® Enterprise Server, Axeda® Enterprise SDK
JAX-RPC (javax)	jaxrpc-api:1.1	CDDL v1.1	*JAX-RPC*	Axeda® Enterprise Server
JBOSS	jboss-cache-1.4.1.GA.jar jboss-common-core-2.2.10.GA.jar jboss-common-jdbc-wrapper-4.3.0.GA_CP06.jar jboss-j2se-200504122039.jar jboss-minimal-4.0.2.jar jboss-system-4.0.2.jar jbosscache-core-3.1.0.GA.jar jms-1.1.jar jta-1.1.jar	LGPL v2.1	*JBOSS*	Axeda® Enterprise Server
JBOSS Logging	jboss-logging-3.1.0.CR2.jar	LGPL v2.1	*JBOSS*	Axeda® AnyDevice Codec
JDOM	jdom-0.7.jar jdom-1.1.3.jar	JDOM License	*JDOM*	Axeda® Enterprise Server, Axeda® Enterprise SDK, Axeda® Deployment Utility, Axeda® Policy Server
jersey-client	com.sun.jersey:jersey-client:jar:1.17	CDDL 1.1	*Jersey Core Client*	Axeda® AnyDevice Codec
jersey-core	com.sun.jersey:jersey-core:jar:1.17 jersey-core-1.17.1.jar	CDDL 1.1	*Jersey Core*	Axeda® AnyDevice Codec
Jersey core-client	jersey-client-1.17.1.jar	CDDL 1.1	*Jersey Core*	Axeda® AnyDevice Codec
jersey-multipart	com.sun.jersey.contribs:jersey-multipart:jar:1.17 jersey-multipart-1.17.1.jar	CDDL 1.1	*Jersey Multipart*	Axeda® AnyDevice Codec
jersey-server	com.sun.jersey:jersey-server:jar:1.17 jersey-server-1.17.1.jar	CDDL 1.1	*Jersey Server*	Axeda® AnyDevice Codec
Jettison	jettison-1.0.jar	Apache v2.0	*Jettison*	Axeda® Policy Server
Jettison	jettison-1.3.jar	Apache v2.0	*Jettison*	Axeda® Enterprise Server
JGoodies	forms-1.0.3.jar, looks-1.2.0.jar, looks-win-1.2.0.jar, plastic-1.1.3.jar, uif-1.3.0.jar, validation-0.9.1, binding-0.9.13.jar	BSD License	*JGoodies*	Axeda® Deployment Utility
JGroups-all	jgroups-2.6.8.GA.jar	LGPL v2.1	*JGroups*	Axeda® Enterprise Server
JIS X 0208 (1990) to Unicode mappings	1	Unicode Data Files License	*JIS X 0208 (1990) to Unicode mappings*	Axeda® Agent

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Jline	jline-0.9.94.jar	BSD License	*JLINE*	Axeda® Enterprise Server (Groovy)
Joda- Time	joda-time-1.6.2.jar	Apache v2.0	*Joda- Time*	Axeda® Enterprise Server
Joda- Time	joda-time:joda-time:jar:2.1	Apache v2.0	*Joda- Time*	Axeda® AnyDevice Codec
Joda Time 2.x	joda-time-2.2.jar	Apache v2.0	*Joda- Time*	Axeda® AnyDevice Codec
jQuery	jquery.min.js (v.1.9.0)	MIT License	*jQuery / jQuery-ui*	Axeda® Console
jQuery Globalize	jquery-ui-v1.8.24/global/jquery.glob.js	MIT License	*jQuery Globalize*	Axeda® Console
jQuery Localization	http://code.google.com/p/jquery-i18n-properties/	MIT License	*jQuery Localization*	Axeda® Console
jQuery Scroller	jquery.mCustomScrollbar.js, 2.8.1	GNU PUBLIC LICENSE	*jQuery Scroller*	Axeda® Console
jQuery-UI	jquery-ui-v1.8.24/jquery-ui.min.js	MIT License	*jQuery / jQuery-ui*	Axeda® Console
Jscience (jscience javax.measure)	jsr-275-1.0-beta-2	BSD 2-Clause License	*Jscience*	Axeda® Enterprise Server
JSON	1.0	LGPL v2.1	*JSON*	Axeda® Enterprise Server
Json-lib	json-lib-2.3-jdk15.jar	Apache v2.0	*Json-lib*	Axeda® Platform (SDK v2)
JSON.simple (org.json)	simple:1.0	Apache v2.0	*JSON.simple*	Axeda® Enterprise Server
JSSE	Jnet-1.0.jar	Oracle Binary Code License	*JSSE*	Axeda® Enterprise Server
JUNIT	junit-4.11.jar	Common Public License v1.0	*WSDL 4j*	Axeda® Enterprise Server
JUNIT	junit-4.8.1.jar	Common Public License v1.0	*WSDL 4j*	Axeda® Policy Server
Kendo UI	Version: 2012.3 1315 (Jan 16, 2013)	Commercial license	*Telerik End User License Agreement for Kendo UI Complete for PHP*	Axeda® Console
KahaDB (org.apache.active mq)	kahaDB:5.3.2	Apache v2.0	*KahaDB*	Axeda® Enterprise Server
kryo	kryo-2.21.jar kryo-serializers-0.22.jar	BSD	*Kryo*	Axeda® Enterprise Server
LibDES	4.01	LibDES License	*LIBDES*	Axeda® Agent Toolkit (also known as Axeda® Agent Embedded)
LibTar	1.2.5	BSD License	*LIBTAR*	Axeda® Agent
Log4J	log4j-1.2.15.jar log4j-1.2.16-signed.jar	Apache v2.0	*Log4j*	Axeda® Enterprise Server, Axeda Enterprise SDK, Axeda® Global Access Server, Axeda® Deployment Utility, Axeda® Policy Server
Mate	Mate_08_9.swc	Apache 2.0	*Mate*	Axeda® Enterprise Server
MD4 algorithm reference implementation	RFC 1320	RSA Data Security, Inc. License	*MD4*	Axeda® Agent Embedded

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
MD5 algorithm reference implementation	RFC 1321	RSA Data Security, Inc. License	*MD5*	Axeda® Agent Embedded
mimepull	org.jvnet:mimepull:jar:1.6	CDDL 1.1	*mimepull*	Axeda® AnyDevice Codec
Minlog	minlog-none-1.2.jar	BSD	*minlog*	Axeda® Enterprise Server
Mock Objects	mockobjects-core-0.09.jar	Apache v1.1	*Mock Objects*	Axeda® Enterprise Server (Groovy)
Mosquitto	mosquitto-1.1.3.tar.gz	BSD	*Mosquitto*	Axeda® Agent (EDD_MQTT driver)
NekoHTML	nekohtml-1.9.9.jar	Apache v2.0	*NekoHTML*	Axeda® Enterprise Server Axeda® Platform (SDK v2)
Objenesis	objenesis-1.2.jar	Apache v2.0	*objenesis*	Axeda® Enterprise Server
OPC Core Components SDK	1	OPC Foundation Classic COM License	*OPC*	Axeda® Agent
OpenDS (includes BerkeleyDB)	1.0.0	CDDL v1.0	*OpenDS*	Axeda® Policy Server
OpenGIS	geoapi-2.2-M1.jar jsr311-api-1.1.1.jar	OGC License	*OpenGIS*	Axeda® Enterprise Server
OpenSAML	opensaml-2.5.1-1.jar openws-1.4.2-1.jar	Apache v2.0	*OpenSAML*	Axeda® Enterprise Server
OpenSSL	1.0.1e	OpenSSL License	*OpenSSL*	Axeda® Agent
OpenSymphony Quartz	quartz-1.6.6.jar 6.6	Apache v2.0	*OpenSymphony Quartz*	Axeda® Enterprise Server
Oracle JDBC Drivers	ojdbc6-11.2.0.2.0.jar	Oracle Technology Network Development and Distribution License	*Oracle JDBC Drivers*	Axeda® Enterprise Server
OS Cache	oscache-2.1.jar	OpenSymphony license	*OS Cache*	Axeda® Enterprise Server
OSGi Service Platform Release 4 (org.osgi)	osgi-core:4.1.0	Apache v2.0	*OSGi*	Axeda® Enterprise Server
Proxool	proxool-0.8.3.jar	Proxool license	*Proxool*	Axeda® Enterprise Server
PuTTY	0.6	MIT License	*PuTTY*	Axeda® Agent
QDox	qdox-1.12.jar	Apache v2.0	*QDox*	Axeda® Enterprise Server
reflectasm	reflectasm-1.07.jar	BSD	*Reflectasm*	Axeda® Enterprise Server
rhino	js-1.7R1.jar	MPL v1.1	*Rhino*	Axeda® Enterprise Server
Scribe Java	scribe-1.3.0.jar	MIT	*Scribe-Java*	Axeda® Enterprise Server
shiftone-arbor	shiftone-arbor-1.0.jar shiftone-oocjndi-1.0.jar	LGPL v2.1	*Shiftone-Arbor*	Axeda® Enterprise Server
SLF4J	slf4j-api-1.6.4.jar slf4j-log4j12-1.6.4.jar	MIT License	*SLF4J*	Axeda® Enterprise Server
SMPPAPI	smppapi-1.0.jar	LGPL v2.1	*SMPPAPI*	Axeda® Enterprise Server
SpiderMonkey	1.7	MPL v1.1	*Spider Monkey*	Axeda® Agent
Spin.js	spin-1.2.8.js	MIT	*Spin.js*	Axeda® Console

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Spring Batch (transitive on Spring LDAP)	spring-batch-core-2.0.3.jar spring-batch-infrastructure-2.0.3.jar	Apache v2.0	*Spring Batch*	Axeda® Policy Server
SpringFramework (transitive on Spring LDAP)	spring-aop-3.0.5.jar spring-asm-3.0.5.jar spring-beans-3.0.5.jar spring-context-3.0.5.jar spring-core-3.0.5.jar spring-expression-3.0.5.jar spring-tx-3.0.5.jar	Apache v2.0	*SpringFramework*	Axeda® Policy Server
SpringFramework	spring-aop-3.0.6.jar spring-asm-3.0.6.jar spring-beans-3.0.6.jar spring-context-support-3.0.6.jar spring-context-3.0.6.jar spring-core-3.0.6.jar spring-expression-3.0.6.jar spring-jdbc-3.0.6.jar spring-jms-3.0.6.jar spring-orm-3.0.6.jar spring-tx-3.0.6.jar spring-web-3.0.6.jar spring-asm-3.0.6.RELEASE.jar	Apache v2.0	*SpringFramework*	Axeda® Enterprise Server
Spring LDAP	spring-ldap-core-1.3.1.jar spring-ldap-core-tiger-1.3.1.jar spring-ldap-ldif-batch-1.3.1.jar spring-ldap-ldfif-core-1.3.1.jar spring-ldap-odm-1.3.1.jar	Apache v2.0	*Spring LDAP*	Axeda® Policy Server
Stax	stax-1.2.0.jar, stax-api-1.0.1.jar	Apache v2.0	*Stax*	Axeda® Policy Server
Stax	javax.xml.stream:stax-api	Apache v2.0	*Stax*	Axeda® Enterprise Server Axeda® AnyDevice Codec
Stax-2	stax2-api-3.1.1.jar	BSD	*Stax2*	Axeda® Enterprise Server Axeda® AnyDevice Codec
StringTemplate	stringtemplate-3.2.1.jar	BSD	*StringTemplate*	Axeda® Enterprise Server
Struts	struts-1.2.9.jar	Apache v1.1	*Struts*	Axeda® Enterprise Server,Axeda Enterprise SDK, Axeda® Global Access Server
Sun JRE	1.6.0_27	Oracle Binary Code License	*Sun JRE*	Axeda® Enterprise Server
Sun JRE	1.7 update 3 (Global Access Server), 1.7 update 11 (Axeda® Policy Server)	Oracle Binary Code License	*Sun JRE*	Axeda® Policy Server, Axeda® Global Access Server
SwarmCache	swarmcache-1.0RC2.jar	LGPL v2.1	*SwarmCache*	Axeda® Enterprise Server

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Tomcat	annotations-api.jar, catalina.jar, catalina-ant.jar, catalina-ha.jar, catalina-tribes.jar, common-daemon.jar, el-api.jar, jasper-jar, jasper-el.jar, jsp-api.jar, servlet-api.jar (servlet-api-2.5.jar Enterprise server) tomcat-api.jar, tomcat-coyote.jar, tomcat-dbcp.jar, tomcat-i18n-es.jar, tomcat-i18n-fr.jar, tomcat-i18n-ja.jar, tomcat-jdbc.jar, tomcat-util.jar Axeda® Global Access Server (7.0.30) (Axeda® Policy Server (7.0.33)	Apache v2.0	*Tomcat*	Axeda® Global Access Server, Axeda® Policy Server
Trunc8	trunc8.js	MIT	*Trunc8*	Axeda® Agent
Ucd-snmp	4.2.2	Historical Permission Notice and Disclaimer; BSD License	*Ucd-snmp*	Axeda® Agent
UltraVNC	UltraVNC Win32 Server 1.1.8	GPL v2	*UltraVNC*	Axeda® Desktop Server and Axeda® Desktop Viewer modules) (for Axeda® Enterprise Server, v5.2 and later)
Velocity	velocity-1.7.jar	Apache v2.0	*Velocity*	Axeda® Enterprise Server, Axeda® Policy Server
VNC not	4.1.2.1	GPL v2	*VNC*	Axeda® Desktop Server and Axeda® Desktop Viewer modules) (releases prior to Axeda® Enterprise Server, v5.2)
vt-middleware (edu.vt.middleware)	vt-password:3.1.1 vt-crypt:2.1.4 vt-dictionary:3.0	Apache v2.0	*vt-middleware*	Axeda® Enterprise Server
Woodstox	woodstox-core-asl-4.1.1.jar	Apache v2.0	*WoodStox*	Axeda® Enterprise Server
WS Security	wss4j-1.6.5.jar	Apache v2.0	*WSS4J*	Axeda® Enterprise Server
WS-Commons	xmlschema-core-2.0.1.jar neethi-3.0.1.jar	Apache v2.0	*WS-Commons*	Axeda® Enterprise Server
Wsdl4j	wsdl4j-1.6.2.jar	Common Public License v1.0	*WSDL 4j*	Axeda® Enterprise Server
Wsdl4j	wsdl4j.jar 1.5.1	Common Public License v1.0	*WSDL 4j*	Axeda® Global Access Server

Package	Component Version	License Version	Link to License/Notice	Applicable Axeda Product / Component
Wsdl4j	wsdl4j-1.6.3.jar	Common Public License v1.0	*WSDL 4j*	Axeda® Policy Server
Xalan	xalan-1.0.jar	Apache v1.1	*Xalan*	Axeda® Enterprise Server, Axeda® Policy Server
Xalan Serializer	2.7.0 Enterprise Server 2.1.0 APS serializer-j_2.7.0.jar	Apache v2.0	*xalan*	Axeda® Enterprise Server, Axeda® Policy Server
Xerces	xercesImpl-2.9.0.jar (SDK) xerces.jar 1.3.1 (GAS) xerces.jar, xercesImpl.jar 2.4.0 (APS) xml-resolver-1.2.jar (Enterprise Server)	Apache v2.0	*xerces*	Axeda® Enterprise Server, Axeda Enterprise SDK, Axeda® Policy Server, Axeda® Global Access Server
XML common	xml-apis-1.3.04.jar xml-resolver-1.2.jar	Apache v2.0	*XML Commons*	Axeda® Enterprise Server Axeda® Platform SDK (SDK v2)
XmlPull parser	xpp3_min-1.1.4c.jar	Indiana University Extreme! Lab Software License	*Xml Pull Parser*	Axeda® Enterprise Server, Axeda® Policy Server
XMLTooling-J	xmltooling-1.3.2-1.jar	Apache v2.0	*XMLTooling-J*	Axeda® Enterprise Server
XStream	xstream-1.3.jar	BSD	*XStream*	Axeda® Policy Server
XStream	xstream-1.3.1.jar	BSD	*XStream*	Axeda® Enterprise Server
XSLTC	xsltc-1.0.jar	Apache v1.1	*XSLTC*	Axeda® Enterprise Server
XZ for Java	Xz-1.0.jar	Public Domain	*NA*	Axeda® Codec Server (included with Axeda® AnyDevice Service)
Zlib	zlib version 1.2.3	zlib License	*ZLib*	AWP C-Toolkit
ZLib	1.1.4	zlib License	*ZLib*	Axeda® Agent, Axeda® Agent Toolkit (also known as Axeda® Agent Embedded)

SOFTWARE: ANT

DESCRIPTION:

Apache Ant, junit and junirreport tasks, and Ant Launcher.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
=============================================================================
==  NOTICE file corresponding to the section 4 d of            ==
==  the Apache License, Version 2.0,                           ==
==  in this case for the Apache Ant distribution.              ==

=============================================================================
```

Apache Ant

Copyright 1999-2006 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

This product includes also software developed by :

 - the W3C consortium (http://www.w3c.org) ,

 - the SAX project (http://www.saxproject.org)

The <sync> task is based on code Copyright (c) 2002, Landmark Graphics Corp that has been kindly donated to the Apache SoftwareFoundation.

SOFTWARE: ActiveMQ

DESCRIPTION:

Messaging Broker implementing Java Messaging Service

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: ActiveMQ activio

DESCRIPTION:

A high performance IO abstraction framework.

Transitive to and part of ActiveMQ.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: Advanced Callout Component

DESCRIPTION:

Enhanced mouse-over flex tooltip functionality, enabling location aware, skinable, styleable tool-tips.

NOTICE:

Copyright (c) 2009 Aaron Hardy

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: ANTLR 2

DESCRIPTION:

A framework for constructing recognizers, compilers, and translators from grammatical descriptions containing Java, C#, C++, or Python actions.

NOTICE:

ANTLR 2 License

ANTLR 1989-2006 Developed by Terence Parr

Partially supported by University of San Francisco & jGuru.com

We reserve no legal rights to the ANTLR--it is fully in the public domain. An individual or company may do whatever they wish with source code distributed with ANTLR or the code generated by ANTLR, including the incorporation of ANTLR, or its output, into commercial software.

We encourage users to develop software with ANTLR. However, we do ask that credit is given to us for developing ANTLR. By "credit", we mean that if you use ANTLR or incorporate any source code into one of your programs (commercial product, research project, or otherwise) that you acknowledge this fact somewhere in the documentation, research report, etc... If you like ANTLR and have developed a nice tool with the output, please mention that you developed it using ANTLR. In addition, we ask that the headers remain intact in our source code. As long as these guidelines are kept, we expect to continue enhancing this system and expect to make other tools available as they are completed.

SOFTWARE: ANTLR 3

DESCRIPTION:

ANTLR, ANother Tool for Language Recognition, is a language tool that provides a framework for constructing recognizers, interpreters, compilers, and translators from grammatical descriptions containing actions in a variety of target languages. ANTLR provides excellent support for tree construction, tree walking, translation, error recovery, and error reporting.

NOTICE:

ANTLR 3 License

[The BSD License]
Copyright (c) 2010 Terence Parr
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the name of the author nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER

CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: ANT-CONTRIB

DESCRIPTION:

The Ant-Contrib project is a collection of tasks (and at one point maybe types and other tools) for Apache Ant. This software is currently included with Axeda® Policy Server but is not utilized at run-time and will be removed in future release.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: AOP-ALLIANCE

DESCRIPTION:

We believe that Aspect-Oriented Programming (AOP) offers a better solution to many problems than do existing technologies such as EJB. The AOP Alliance aims to ensure interoperability between Java/J2EE AOP implementations to build a larger AOP community.

NOTICE:

The AOP Alliance project is a joint open-source project between several software engineering people who are interested in AOP and Java.

LICENCE: all the source code provided by AOP Alliance is Public Domain.

SOFTWARE: Apache CXF

DESCRIPTION:

Apache CXF is an open source services framework. CXF helps you build and develop services using frontend programming APIs, like JAX-WS and JAX-RS. These services can speak a variety of protocols such as SOAP, XML/HTTP, RESTful HTTP, or CORBA and work over a variety of transports such as HTTP, JMS or JBI.

NOTICE:

Apache CXF

Copyright 2006-2011 The Apache Software Foundation

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

This product also includes schemas and specification developed by:

   - the W3C consortium (*http://www.w3c.org*) (*http://www.w3.org/XML/1998/namespace*)

This product also includes WS-* schemas developed by International Business Machines Corporation, Microsoft Corporation, BEA Systems, TIBCO Software, SAP AG, Sonic Software, and VeriSign (*http://schemas.xmlsoap.org/wsdl/2003-02-11.xsd*) (*http://schemas.xmlsoap.org/ws/2004/08/addressing/*), (*http://schemas.xmlsoap.org/wsdl/http*), (*http://schemas.xmlsoap.org/ws/2005/02/rm/wsrm.xsd*), (*http://www.w3.org/2005/08/addressing/ws-addr.xsd*), (*http://www.w3.org/TR/ws-metadata-exchange/*), (*http://schemas.xmlsoap.org/ws/2004/09/mex/*), (*http://docs.oasis-open.org/ws-sx/ws-trust/v1.4/ws-trust.html*)

The product contains code (StaxBuilder.java) that is

 Copyright (C) 2000-2004 Jason Hunter & Brett McLaughlin. All rights reserved.

 See the NOTICE.jdom file for additional information

Java classes (source and binary) under org.apache.cxf.jaxws.javaee are generated from schema available here: (*http://java.sun.com/xml/ns/javaee/javaee_5.xsd*)

This Product also includes software developed by David Heinemeier Hansson. (*http://dev.rubyonrails.org/browser/trunk/activesupport/lib/active_support/inflections.rb*)

This product includes software Copyright University of Southampton IT Innovation Centre, 2009 (*http://www.it-innovation.soton.ac.uk*).

This product also includes MTOSI wsdl and schemas developed by the TeleManagement Forum (http://www.tmforum.org/browse.aspx). The original MTOSI wsdl and schemas can be download from (*http://sourceforge.net/projects/mtosi-ri*)

Portions of the included XmlSchema library are Copyright 2006 International Business Machines Corp.

Portions of the included xml-apis library were originally based on the following:

- software copyright (c) 1999, IBM Corporation., *http://www.ibm.com*.
- software copyright (c) 1999, Sun Microsystems., *http://www.sun.com*.
- software copyright (c) 2000 World Wide Web Consortium, *http://www.w3.org*

Portions of the included xmlbeans library were originally based on the following:

- software copyright (c) 2000-2003, BEA Systems, <*http://www.bea.com/*>.

Portions of the file cxf-utils.js derives from code marked:

   This code was written by Tyler Akins and has been placed in the public domain.

It would be nice if you left this header intact.Base64 code from Tyler Akins -- http://rumkin.comAdditional copyright notices and license terms applicable represent in the licenses directory of this distribution. This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE Apache HttpComponents

DESCRIPTION:

The Apache HttpComponents project is responsible for creating and maintaining a toolset of low level Java components focused on HTTP and associated protocols.

NOTICE:

Apache HttpComponents Client

Copyright 1999-2009 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

This project contains annotations derived from JCIP-ANNOTATIONS

Copyright (c) 2005 Brian Goetz and Tim Peierls. See *http://www.jcip.net*

Apache HttpComponents Core - HttpCore

Copyright 2006-2009 The Apache Software Foundation

This product includes software developed by

The Apache Software Foundation (http://www.apache.org/).

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: Apache Mina / Apache Mina SSHD

DESCRIPTION:

Apache MINA is a network application framework which helps users develop high performance and high scalability network applications easily. It provides an abstract ·event-driven · asynchronous API over various transports such as TCP/IP and UDP/IP via Java NIO.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Apache MINA

Copyright 2007 The Apache Software Foundation.

This product includes software developed at The Apache Software Foundation (*http://www.apache.org/*).

Message logging is provided by the SLF4J library package, which is open source software, written by Ceki Gülcü, and copyright by SLF4J.ORG and QOS.ch. The original software is available from *http://www.slf4j.org/*

Data compression support is provided by the JZLib library package,which is open source software, written by JCraft, and copyright by JCraft. The original software is available from *http://www.jcraft.com/jzlib/*

Spring framework is provided by the Spring framework library package, which is open source software, written by Rod Johnson et al, and copyright by Springframework.org. The original software is available *from http://www.springframework.org/*

OGNL is provided by the OGNL library package, which is open source software, written by Drew Davidson and Luke Blanshard. The original software is available from *http://www.ognl.org/*

Apache MINA SSHD

Copyright 2008-2012 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: Apache XBean

DESCRIPTION:

XBean will be able to discover, download and install server plugins from an Internet based repository. In addition, we include support for multiple IoC systems, support for running with no IoC system, JMX without JMX code, lifecycle and class loader management, and a rock solid Spring integration

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: ASM

DESCRIPTION:

ASM is a Java bytecode manipulation framework. It offers similar functionalities as BCEL or SERP, but is much smaller and faster than these tools. (ASM 4.0 is a Dependency for Kryo jar; provided with Kryo distribution.)

NOTICE:

Copyright (c) 2000-2011 INRIA, France Telecom

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: ASPECTJ

DESCRIPTION:

Required for certain feature of Hibernate. Enables code behavior to be weaved into common routines.

NOTICE:

This software is licensed under the Eclipse Public License v1.0. See *Appendix E - Eclipse Public License v1.0*.

From http://www.eclipse.org/aspectj/doc/released/faq.php:

> AspectJ 1.1+ source code is available through CVS using the CVS Root dev.eclipse.org:/cvsroot/technology. For more information on accessing the CVS tree at eclipse.org, see the documentation from http://eclipse.org.

SOFTWARE: AXIS

DESCRIPTION:

Apache Axis is an implementation of the SOAP ("Simple Object Access Protocol") submission to W3C.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
=========================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,   ==
==  Version 2.0, in this case for the Apache Axis distribution.        ==
==  This product includes software developed by The Apache Software Foundation (http://www.apache.org/).
```

SOFTWARE: BEANSHELL

DESCRIPTION:

BeanShell is a small, free, embeddable Java source interpreter with object scripting language features, written in Java. BeanShell dynamically executes standard Java syntax and extends it with common scripting conveniences such as loose types, commands, and method closures like those in Perl and JavaScript. Lightweight Scripting for Java.

Axeda software uses bsh at runtime (by Kryo).

NOTICE:

Beanshell is dual-licensed under the Sun Public License (see *Appendix U - SUN PUBLIC LICENSE*) and the GNU Lesser General Public License v3 (see *Appendix N – LGPL v3*), which incorporates the terms of the GPL v3.

SOFTWARE: BLAZEDS

DESCRIPTION:

BlazeDS is the server-based Java remoting and web messaging technology that enables developers to easily connect to back-end distributed data and push data in real-time to Adobe® Flex™ and Adobe AIR™ applications for more responsive rich Internet application (RIA) experiences.

NOTICE:

Axeda software includes cfgatewayadapter.jar from the BlazeDS distribution (© 2004-2008 Adobe Systems Incorporated. All rights reserved.).

BlazeDS is licensed under the GNU Lesser General Public License v3, which incorporates the terms of the GPL v3. See *Appendix N – LGPL v3* and *Appendix O – GPL v3*.

SOFTWARE: BouncyCastle

DESCRIPTION: Lightweight cryptography API

NOTICE:

Copyright (c) 2000 - 2009 The Legion Of The Bouncy Castle (http://www.bouncycastle.org)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: C3p0

DESCRIPTION:

c3p0 is an easy-to-use library for augmenting traditional (DriverManager-based) JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling, as described by the jdbc3 spec and jdbc2 std extension.

Connection pool manager used by Quartz.

NOTICE:

This software is licensed under:
the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: Camel

DESCRIPTION:

Apache Camel is an integration framework based on known Enterprise Integration Patterns. Camel empowers you to define routing and mediation rules in a variety of domain-specific languages including Spring or Blueprint XML Configuration files.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
=====================================================================
==  NOTICE file corresponding to the section 4 d of       ==
==  the Apache License, Version 2.0,                      ==
==  in this case for the Apache Camel distribution.       ==
=====================================================================
```

Apache Camel

Copyright 2007-2010 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

```
=====================================================================
               ==  Spring Notice  ==
=====================================================================
```

This product includes software developed by the Apache Software Foundation (*http://www.apache.org*).

This product also includes software developed by Clinton Begin (*http://www.ibatis.com*).

The end-user documentation included with a redistribution, if any, must include the following acknowledgement:

   "This product includes software developed by the Spring Framework Project (*http://www.springframework.org*)."

Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

The names "Spring" and "Spring Framework" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact rod.johnson@interface21.com or *juergen.hoeller@interface21.com*.

SOFTWARE: CASTOR

DESCRIPTION:

castor-core-1.3.2.jar, castor-xml-1.3.2.jar

As of release 0.9.7, any new code artifacts should carry a new, Apache 2.0-style license. This shall include files that have been changed substantially through e.g. refactoring.

Copyright 2004-2005 Werner Guttmann

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0. See *Appendix A - Apache License v2.0*.

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Implementation-Version:0.9.3.19

Castor is an Open Source data binding framework for Java™. It is the shortest path between Java objects, XML documents and relational tables. Castor provides Java-to-XML binding, Java-to-SQL persistence, and so forth.

Direct Dependency.

NOTICE:

Portion(s) of Axeda software include software developed by the ExoLab Project (*http://www.exolab.org*; *http://www.castor.org*).

Copyright 1999-2004 (C) Intalio Inc. and others. All Rights Reserved.

Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain copyright statements and notices. Redistributions must also contain a copy of this document.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The name "ExoLab" must not be used to endorse or promote products derived from this Software without prior written permission of Intalio Inc. For written permission, please contact info@exolab.org.

4. Products derived from this Software may not be called "Castor" nor may "Castor" appear in their names without prior written permission of Intalio Inc. Exolab, Castor and Intalio are trademarks of Intalio Inc.

5. Due credit should be given to the ExoLab Project (http://www.exolab.org/).

THIS SOFTWARE IS PROVIDED BY INTALIO AND CONTRIBUTORS "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL INTALIO OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: CFGatewayadapter

DESCRIPTION:

Adapter class usually used with cold fusion.

NOTICE:

Covered by *BlazeDS*.

SOFTWARE: CGLIB

DESCRIPTION:

CGLib is a code generation library and dependency of AspectJ.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: IBM

DESCRIPTION:

International Business Machines Corporation (IBM) provides business intelligence software (formerly owned by Cognos Corporation) that enables users to extract corporate data, analyze it, and then assemble for use in reports and dashboards. The Axeda Connected Reporting application suite (formerly Axeda Service Intelligence) includes software licensed by Axeda from IBM under a commercial license agreement.

Axeda **Connected Reporting Release 6.6 and later:**

- IBM BI Enhanced Consumer
- IBM BI Advanced Business Author
- IBM BI Professional Author

Axeda **Service Intelligence Release 6.5 and earlier:**

- IBM Cognos Business Intelligence Advanced Business Author
- IBM Cognos Business Intelligence Enhanced Consumer
- IBM Cognos Business Intelligence Professional Author

NOTICE:

This software is private labeled by Axeda and licensed under the terms of the applicable software license or on-demand services contract between Axeda (or its reseller) and the applicable customer. Contact Axeda Corporation for more details.

SOFTWARE: COMMONS-APACHE

DESCRIPTION:

The Apache Commons is a collection of reusable Java components, including beanutils (Java classes that conform to the JavaBeans naming patterns for property getters and setters); collections (types that extend and augment the Java Collections Framework); digester (common implementation for reading XML configuration files); el (JSP 2.0 Expression Language Interpreter); httpclient (implementation of the client side of the most recent HTTP standards and recommendations); io (library of utilities to assist with developing IO functionality); lang (package of Java utility classes for the classes that are in java.lang's hierarchy, or are considered to be so standard as to justify existence in java.lang); logging (ultra-thin bridge between different logging implementations); and validator.

The Apache Commons CLI library provides an API for parsing command line options passed to programs. It's also able to print help messages detailing the options available for a command line tool.

Commons-Pool provides an Object-pooling API, with three major aspects:

- A generic object pool interface that clients and implementors can use to provide easily interchangable pooling implementations.
- A toolkit for creating modular object pools.
- Several general purpose pool implementations.

NOTICE:

The Apache Commons products include software developed by The Apache Software Foundation (http://www.apache.org/).

Apache Commons BeanUtils

Copyright 2000-2008 The Apache Software Foundation

Apache Commons Configuration

Copyright 2001-2008 The Apache Software Foundation

Apache Commons Collection

Copyright 2001-2008 The Apache Software Foundation

Apache Commons Compress

Apache Commons Compress Copyright 2002-2012

Apache Commons Discovery

Copyright 2002-2011 The Apache Software Foundation

Apache Commons Pool

Copyright 1999-2009 The Apache Software Foundation

Apache Commons FileUpload

Copyright 2002-2008 The Apache Software Foundation

Apache Commons JXPath

Copyright 2001-2008 The Apache Software Foundation

Apache Commons Net

Copyright 2001-2008 The Apache Software Foundation

Apache Commons Lang

Copyright 2001-2011 The Apache Software Foundation

Apache Commons Math

Copyright 2001-2011 The Apache Software Foundation

Apache Commons CLI

Copyright 2001-2009 The Apache Software Foundation

==

The BracketFinder (package org.apache.commons.math.optimization.univariate) and PowellOptimizer (package org.apache.commons.math.optimization.general) classes are based on the Python code in module "optimize.py" (version 0.5) developed by Travis E. Oliphant for the SciPy library (*http://www.scipy.org/*)

Copyright © 2003-2009 SciPy Developers.

==

The LinearConstraint, LinearObjectiveFunction, LinearOptimizer, RelationShip, SimplexSolver and SimplexTableau classes in package org.apache.commons.math.optimization.linear include software developed by Benjamin McCann (*http://www.benmccann.com*) and distributed with the following copyright: Copyright 2009 Google Inc.

==

This product includes software developed by the University of Chicago, as Operator of Argonne National Laboratory.

The LevenbergMarquardtOptimizer class in package org.apache.commons.math.optimization.general includes software translated from the lmder, lmpar and qrsolv Fortran routines from the Minpack package

Minpack Copyright Notice (1999) University of Chicago. All rights reserved

==

The GraggBulirschStoerIntegrator class in package org.apache.commons.math.ode.nonstiff includes software translated from the odex Fortran routine developed by E. Hairer and G. Wanner.

Original source copyright: Copyright (c) 2004, Ernst Hairer

==

The EigenDecompositionImpl class in package org.apache.commons.math.linear includes software translated from some LAPACK Fortran routines. Original source copyright: Copyright (c) 1992-2008 The University of Tennessee. All rights reserved.

==

The MersenneTwister class in package org.apache.commons.math.random includes software translated from the 2002-01-26 version of the Mersenne-Twister generator written in C by Makoto Matsumoto and Takuji Nishimura. Original source copyright: Copyright (C) 1997 - 2002, Makoto Matsumoto and Takuji Nishimura, All rights reserved

==

Apache Jakarta Commons Digester

Copyright 2001-2006 The Apache Software Foundation

Apache Commons IO

Copyright 2001-2008 The Apache Software Foundation

Some Commons components are licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Some Commons components are licensed under the Apache Software License, Version 1.1

Copyright (c) 1999-2003 The Apache Software Foundation. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

 3. The end-user documentation included with the redistribution, if any, must include the following acknowledgement:

    "This product includes software developed by the Apache Software Foundation (*http://www.apache.org/*)."

   Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

 4. The names "The Jakarta Project", "Commons", and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

 5. Products derived from this software may not be called "Apache" nor may "Apache" appear in their names without prior written permission of the Apache Group.

 THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

 ==

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.

SOFTWARE: Concurrency Backport

DESCRIPTION:

This package is the backport of java.util.concurrent API, introduced in Java 5.0 and further refined in Java 6.0, to older Java platforms.

NOTICE:

Copyright-Only Dedication (based on United States law) or Public Domain Certification

The person or persons who have associated work with this document (the "Dedicator" or "Certifier") hereby either (a) certifies that, to the best of his knowledge, the work of authorship identified is in the public domain of the country from which the work is published, or (b) hereby dedicates whatever copyright the dedicators holds in the work of authorship identified below (the "Work") to the public domain. A certifier, moreover, dedicates any copyright interest he may have in the associated work, and for these purposes, is described as a "dedicator" below.

A certifier has taken reasonable steps to verify the copyright status of this work. Certifier recognizes that his good faith efforts may not shield him from liability if in fact the work certified is not in the public domain.

Dedicator makes this dedication for the benefit of the public at large and to the detriment of the Dedicator's heirs and successors. Dedicator intends this dedication to be an overt act of relinquishment in perpetuity of all present and future rights under copyright law, whether vested or contingent, in the Work. Dedicator understands that such relinquishment of all rights includes the relinquishment of all rights to enforce (by lawsuit or otherwise) those copyrights in the Work.

Dedicator recognizes that, once placed in the public domain, the Work may be freely reproduced, distributed, transmitted, used, modified, built upon, or otherwise exploited by anyone for any purpose, commercial or non-commercial, and in any way, including by methods that have not yet been invented or conceived.

SOFTWARE: DOM4J

DESCRIPTION:

Flexible XML framework for Java.

NOTICE:

Portion(s) of Axeda software include software developed by the DOM4J Project (http://www.dom4j.org).

Copyright 2001-2005 (C) MetaStuff, Ltd. All Rights Reserved.

Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain copyright statements and notices. Redistributions must also contain a copy of this document.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The name "DOM4J" must not be used to endorse or promote products derived from this Software without prior written permission of MetaStuff, Ltd. For written permission, please contact dom4j-info@metastuff.com.

4. Products derived from this Software may not be called "DOM4J" nor may "DOM4J" appear in their names without prior written permission of MetaStuff, Ltd. DOM4J is a registered trademark of MetaStuff, Ltd.

5. Due credit should be given to the DOM4J Project - http://www.dom4j.org

THIS SOFTWARE IS PROVIDED BY METASTUFF, LTD. AND CONTRIBUTORS ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL METASTUFF, LTD. OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: EHCACHE

DESCRIPTION:

EHCache is a pure Java, in-process cache with the following features: 1. Fast. 2. Simple. 3. Multiple eviction policies: LRU, LFU and FIFO. 4. Caches can be in memory or on disk. 5. Disk Stores can be persistent between VM restarts. 6. Distributed caching using multicast and RMI, with a pluggable API. 7. Cache and CacheManager listeners. 8. Supports multiple Caches per CacheManager, and multiple CacheManagers per application. 9. Acts as a pluggable cache for Hibernate 3.1, 3 and 2.1. 10. Small foot print. Both in terms of size and memory requirements. 11. Minimal dependencies apart from J2SE.

Caching layer, including clustering support

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

EHCache-Core – Copyright 2003-2009 Terracotta, Inc.

EHCache-JGroupsReplication – Copyright 2003-2009 Luck Consulting Pty Ltd

EHCache-JMSReplication – Copyright 2003-2008 Luck Consulting Pty Ltd

---

SOFTWARE: ECLIPSE JDT JAVA COMPILER

DESCRIPTION:

343BAn incremental Java compiler. Implemented as an Eclipse builder, it is based on technology evolved from VisualAge for Java compiler. In particular, it provides the ability to run and debug code which still contains unresolved errors.

NOTICE:

This software is licensed under the Eclipse Public License v1.0. See *Appendix E - Eclipse Public License v1.0*.

SOFTWARE: EXPAT

DESCRIPTION:

Expat is an XML parser library written in C. It is a stream-oriented parser in which an application registers handlers for things the parser might find in the XML document (like start tags).

NOTICE:

Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: FLEX

DESCRIPTION:

Apache Flex, formerly Adobe Flex, is a software development kit (SDK) for the development and deployment of cross-platform rich Internet applications based on the Adobe Flash platform.

NOTICE:

Flex versions 3.4, 4.5 and 4.6

Axeda has not modified the Flex SDKs. Axeda uses the Open Source Flex SDKs, available here: *http://sourceforge.net/adobe/flexsdk/wiki/Downloads/*. As stated on this webpage, each Open Source Flex SDK package "is entirely under the MPL, including its binaries. It contains the majority of the Flex SDK (compilers, framework, debugger) but does not include anything that is not open source like the Adobe Flash Player, Adobe AIR, or the advanced font encoding libraries."

The contents of the files contained in each Flex SDK are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use these files except in compliance with the License. You may obtain a copy of the License here: Mozilla Public License Version 1.1 or *http://www.mozilla.org/MPL/*. See also *Appendix D – Mozilla Public License v1.1*.

Software distributed under the MPL v1.1 is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the MPL v1.1 for the specific language governing rights and limitations under the MPL v1.1.

The Original Code consists of the files included in each respective Flex SDK distribution directory.

The Initial Developer of the Original Code is Adobe Systems Incorporated.

By downloading, modifying, distributing, using and/or accessing any files in this Flex SDK, you agree to the terms and conditions of the applicable end user license agreement.

For a list of 3rd party notices, see: *http://www.adobe.com/products/eula/third_party/*.

SOFTWARE FreeMarker

DESCRIPTION:

FreeMarker is a "template engine"; a generic tool to generate text output (anything from HTML to autogenerated source code) based on templates. It's a Java package, a class library for Java programmers. It's not an application for end-users in itself, but something that programmers can embed into their products.

FreeMarker 1.x was released under the LGPL license. Later, by community consensus, we have switched over to a BSD-style license. As of FreeMarker 2.2pre1, the original author, Benjamin Geer, has relinquished the copyright in behalf of Visigoth Software Society. The current copyright holder is the Visigoth Software Society.

NOTICE:

Copyright (c) 2003 The Visigoth Software Society. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. The end-user documentation included with the redistribution, if any, must include the following acknowledgement:

"This product includes software developed by the Visigoth Software Society (*http://www.visigoths.org/)*." Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

3. Neither the name "FreeMarker", "Visigoth", nor any of the names of the project contributors may be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact visigoths@visigoths.org.

4. Products derived from this software may not be called "FreeMarker or "Visigoth" nor may "FreeMarker" or "Visigoth" appear in their names without prior written permission of the Visigoth Software Society.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE VISIGOTH SOFTWARE SOCIETY OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the Visigoth Software Society. For more information on the Visigoth Software Society, please see http://www.visigoths.org/

FREEMARKER SUBCOMPONENTS UNDER DIFFERENT LICENSE:

FreeMarker includes a number of subcomponents that are licensed by the Apache Software Foundation under the Apache License, Version 2.0. Your use of these subcomponents is subject to the terms and conditions of the Apache License, Version 2.0. You may obtain a copy of the License at *http://www.apache.org/licenses/LICENSE-2.0* (See *Appendix A - Apache License v2.0*.)

The subcomponents under this license are the following files, which are included both in freemarker.jar and in the source code:

    freemarker/ext/jsp/web-app_2_2.dtd

    freemarker/ext/jsp/web-app_2_3.dtd

    freemarker/ext/jsp/web-app_2_4.xsd

    freemarker/ext/jsp/web-app_2_5.xsd

    freemarker/ext/jsp/web-jsptaglibrary_1_1.dtd

    freemarker/ext/jsp/web-jsptaglibrary_1_2.dtd

    freemarker/ext/jsp/web-jsptaglibrary_2_0.xsd

    freemarker/ext/jsp/web-jsptaglibrary_2_1.xsd

SOFTWARE: GEOTOOLS

DESCRIPTION:

GeoTools is an open source Java code library which provides standards compliant methods for the manipulation of geospatial data, for example to implement Geographic Information Systems (GIS). The GeoTools library implements Open Geospatial Consortium (OGC) specifications as they are developed, in close collaboration with the GeoAPI project.

The EPSG geodetic parameter dataset is owned jointly and severally by the members of the Surveying and Positioning Committee of the International Association of Oil and Gas Producers (OGP), formerly the European Petroleum Survey Group (EPSG). It is compiled by the Geodetic Subcommittee of the OGP from publicly available and member-supplied information and distributed at no charge through the internet.

NOTICE:

GeoTools - The Open Source Java GIS Toolkit

http://geotools.org

© 2008, Open Source Geospatial Foundation (OSGeo)

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

EPSG Geodetic Parameter Dataset

Copyright (c) 1993-2006, OGP Surveying & Positioning Committee

The data may be copied and distributed subject to the following conditions:

1. The user assumes the entire risk as to the accuracy and the use of this data. INFORMATION PROVIDED IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE.

2. All data pertinent to a specific coordinate reference system must be copied without modification and all related pages/records must be included;

3. The data may not be distributed for profit by any third party; and

4. The original source [OGP / EPSG] must be acknowledged.

With regard to (3) above, the data may be included within proprietary applications distributed on a commercial basis when the commerciality is based on application functionality and not on a value ascribed to the freely-distributed OGP data.

SOFTWARE: Geronimo

DESCRIPTION:

Apache Geronimo is an open source application server developed by the Apache Software Foundation and distributed under the Apache license.

NOTICE:

Apache Geronimo

Copyright 2003-2010 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*). This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: Google Guava

DESCRIPTION:

Utilities; Parsing Tools; Unsigned Wrapper Types

The Guava project contains several of Google's core libraries that we rely on in our Java-based projects: collections, caching, primitives support, concurrency libraries, common annotations, string processing, I/O, and so forth. Each of these tools really do get used every day by Googlers, in production services.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
========================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,   ==
==  Version 2.0, in this case for the Apache Axis distribution.        ==
========================================================================
```

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: Google Guice

DESCRIPTION:

Put simply, Guice alleviates the need for factories and the use of new in your Java code. Think of Guice's @Inject as the new new. You will still need to write factories in some cases, but your code will not depend directly on them. Your code will be easier to change, unit test and reuse in other contexts.

Guice embraces Java's type safe nature, especially when it comes to features introduced in Java 5 such as generics and annotations. You might think of Guice as filling in missing features for core Java. Ideally, the language itself would provide most of the same features, but until such a language comes along, we have Guice.

Guice helps you design better APIs, and the Guice API itself sets a good example. Guice is not a kitchen sink. We justify each feature with at least three use cases. When in doubt, we leave it out. We build general functionality which enables you to extend Guice rather than adding every feature to the core framework.

Guice aims to make development and debugging easier and faster, not harder and slower. In that vein, Guice steers clear of surprises and magic. You should be able to understand code with or without tools, though tools can make things even easier. When errors do occur, Guice goes the extra mile to generate helpful messages.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
=====================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,  ==
==  Version 2.0, in this case for the Apache Axis distribution.      ==
=====================================================================
```

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: GROOVY

DESCRIPTION:

Dynamic scripting language for the Java Virtual Machine. Used within the Axeda Applications when creating Custom Objects.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Apache Commons CLI

Copyright 2001-2009 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*). The following notice applies to the files:

```
src/main/org/codehaus/groovy/jsr223/GroovyCompiledScript.java
src/main/org/codehaus/groovy/jsr223/GroovyScriptEngineFactory.java
src/main/org/codehaus/groovy/jsr223/GroovyScriptEngineImpl.java
/*
 * Copyright 2006 Sun Microsystems, Inc. All rights reserved.
 * Use is subject to license terms.
 *
 * Redistribution and use in source and binary forms, with or without modification, are
 * permitted provided that the following conditions are met: Redistributions of source code
 * must retain the above copyright notice, this list of conditions and the following
 * (disclaimer.
 * Redistributions in binary form must reproduce the above copyright notice, this list of
 * conditions and the following disclaimer in the documentation and/or other materials
```

```
 * provided with the distribution. Neither the name of the Sun Microsystems nor the names of
 * is contributors may be used to endorse or promote products derived from this software
 * without specific prior written permission.
 * THIS SOFTWARE IS PROVIDED `BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS
 * OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY
 * AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER
 * OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
 * CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR
 * SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON
 * ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE
 * OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
 * POSSIBILITY OF SUCH DAMAGE.
 */
```

SOFTWARE Hamcrest BSD License

DESCRIPTION:

Provides a library of matcher objects (also known as constraints or predicates) allowing 'match' rules to be defined declaratively, to be used in other frameworks.

NOTICE:

BSD License

Copyright (c) 2000-2006, www.hamcrest.org

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of Hamcrest nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: Hamcrest BSD3-Clause License

DESCRIPTION:

Provides a library of matcher objects (also known as constraints or predicates) allowing 'match' rules to be defined declaratively, to be used in other frameworks.

The BSD 3-Clause License

The following is a BSD 3-Clause ("BSD New" or "BSD Simplified") license template. To generate your own license, change the values of OWNER, ORGANIZATION and YEAR from their original values as given here, and substitute your own.

Note: You may omit clause 3 and still be OSD-conformant. Despite its colloquial name "BSD New", this is not the newest version of the BSD license; it was followed by the even newer *BSD-2-Clause* version, sometimes known as the "Simplified BSD License". On January 9th, 2008 the OSI Board approved *BSD-2-Clause*, which is used by *FreeBSD* and others. It omits the final "no-endorsement" clause and is thus roughly equivalent to the *MIT License*.

Historical Background: The original license used on BSD Unix had four clauses. The advertising clause (the third of four clauses) required you to acknowledge use of U.C. Berkeley code in your advertising of any product using that code. It was officially *rescinded* by the Director of the Office of Technology Licensing of the University of California on July 22nd, 1999. He states that clause 3 is "hereby deleted in its entirety." The four clause license has not been approved by OSI. The license below does not contain the advertising clause.

This prelude is not part of the license.

<OWNER> = Regents of the University of California
<ORGANIZATION> = University of California, Berkeley
<YEAR> = 1998

In the original BSD license, both occurrences of the phrase "COPYRIGHT HOLDERS AND CONTRIBUTORS" in the disclaimer read "REGENTS AND CONTRIBUTORS".

Here is the license template:

Copyright (c) <YEAR>, <OWNER>
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of the <ORGANIZATION> nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: Harmony ASN.1 Framework

DESCRIPTION:

Apache Harmony was an open source, free Java implementation, developed by the Apache Software Foundation.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*

SOFTWARE: HTTPBuilder

DESCRIPTION:

HTTPBuilder is a wrapper for Apache's HttpClient, with some (actually, a lot of) Groovy syntactical sugar thrown on top.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
========================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,   ==
==  Version 2.0, in this case for the Apache Axis distribution.        ==
========================================================================
```

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: HTTPCore

DESCRIPTION:

HttpCore is a set of low level HTTP transport components that can be used to build custom client and server side HTTP services with a minimal footprint. HttpCore supports two I/O models: blocking I/O model based on the classic Java I/O and non-blocking, event driven I/O model based on Java NIO.

The blocking I/O model may be more appropriate for data intensive, low latency scenarios, whereas the non-blocking model may be more appropriate for high latency scenarios where raw data throughput is less important than the ability to handle thousands of simultaneous HTTP connections in a resource efficient manner.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
========================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,   ==
==  Version 2.0, in this case for the Apache Axis distribution.        ==
========================================================================
```

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: HIBERNATE

DESCRIPTION:

Hibernate's goal is to relieve the developer from 95 percent of common data persistence related programming tasks, compared to manual coding with SQL and the JDBC API.

NOTICE:

```
         * Copyright (c) 2008, Red Hat Middleware LLC or third-party contributors as
          * indicated by the @author tags or express copyright attribution
          * statements applied by the authors.  All third-party contributions are
          * distributed under license by Red Hat Middleware LLC.
```

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: HIBERNATE SPATIAL

DESCRIPTION:

Hibernate Spatial is a generic extension to Hibernate for handling geographic data. Hibernate Spatial allows you to deal with geographic data in a standardized way. It abstracts away from the specific way your database supports geographic data, and provides a standardized, cross-database interface to geographic data storage and query functions.

NOTICE:

Axeda has modified Hibernate Spatial. Any customer who receives Hibernate Spatial from Axeda may also receive the source code for the modified version of Hibernate Spatial. Hibernate Spatial and Axeda's modifications are licensed under the LGPL v2.1. The following notices and a copy of the license are printed below as required under the license.

Copyright © 2007 Geovise BVBA

```
         * Copyright © 2007 K.U. Leuven LRD, Spatial Applications Division, Belgium
          *
          * This work was partially supported by the European Commission,
          * under the 6th Framework Programme, contract IST-2-004688-STP.
          *
          * For more information, visit: http://www.hibernatespatial.org/
```

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: HIBERNATE VALIDATOR

DESCRIPTION:

JSR 303 Reference Implementation provided Java Bean validation

Hibernate Validator & Bean Validation TCK

Hibernate Validator 5.x is the reference implementation for JSR 349 - Bean Validation 1.1 of which Red Hat is the specification lead.

JSR 349 - Bean Validation defines a metadata model and API for JavaBean validation as well as method validation. The default metadata source are annotations, with the ability to override and extend the meta-data through the use of XML validation descriptors. The API is not tied to a specific application tier or programming model. It is specifically not tied to either the web tier or the persistence tier, and is available for both server-side application programming, as well as rich client Swing application developer.

Together with the reference implementation, Hibernate provides also the Bean Validation TCK. You can find more information about the TCK here.

For more information regarding the specification itself refer to beanvalidation.org.

All artifacts described here, namely Hibernate Validator 5 as well as Bean Validation API and TCK are provided and distributed by JBoss (Red Hat) under the Apache Software License 2.0.

- See more at: *http://www.hibernate.org/subprojects/validator.html#sthash.Qfh3tR47.dpuf*

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*

SOFTWARE: HIBERNATE VALIDATOR ANNOTATION PROCESSOR

DESCRIPTION:

Annotation processor for Hibernate Validator.

Have you ever unintentionally done one of the following:

- Annotated a bean property with a constraint which does not have a constraint validator for this type (e.g. by annotated a String with @Past)
- Annotated the setter of a JavaBean property instead of the getter
- Annotated static fields or methods with constraint annotations

Then the Hibernate Validator Annotation Processor is the right thing for you. It is an annotation processor based on JSR-269 which plugs into the build process and raises compilation errors whenever constraint annotations are incorrectly used. Read more about this processor here. It is available in the JBoss Maven Repository.

See more at: *http://www.hibernate.org/subprojects/validator.html#sthash.Qfh3tR47.dpuf*

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*

SOFTWARE: HSQL

DESCRIPTION:

Lightweight 100% Java SQL Database Engine.

NOTICE:

For work developed by the HSQL Development Group:

Copyright (c) 2001-2011, The HSQL Development Group. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of the HSQL Development Group nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL HSQL DEVELOPMENT GROUP, HSQLDB.ORG, OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT,

INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

For work originally developed by the Hypersonic SQL Group:

Copyright (c) 1995-2000, The Hypersonic SQL Group. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the Hypersonic SQL Group nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE

ARE DISCLAIMED. IN NO EVENT SHALL THE HYPERSONIC SQL GROUP, OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the Hypersonic SQL Group.

SOFTWARE: INFO-ZIP

DESCRIPTION:

NOTICE:

Copyright (c) 1990-2007 Info-ZIP. All rights reserved.

For the purposes of this copyright and license, "Info-ZIP" is defined asthe following set of individuals:

Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-loup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White.

This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the above disclaimer and the following restrictions:

   1. Redistributions of source code (in whole or in part) must retain the above copyright notice, definition, disclaimer, and this list of conditions.

   2. Redistributions in binary form (compiled executables and libraries) must reproduce the above copyright notice, definition, disclaimer, and this list of conditions in documentation and/or other materials provided with the distribution. The sole exception to

this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled.

3. Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, versions with modified or added functionality, and dynamic, shared, or static library versions not from Info-ZIP--must be plainly marked as such and must not be misrepresented as being the original source or, if binaries, compiled from the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or the Info-ZIP URL(s), such as to imply Info-ZIP will provide support for the altered versions.

4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.

SOFTWARE Jackson (Core)

DESCRIPTION:

Jackson is a high performance JSON processor.

NOTICE:

This product currently only contains code developed by authors of specific components, as identified by the source code files if such notes are missing files have been created by Tatu Saloranta. For additional credits (generally to people who reported problems) see CREDITS file.

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE jackson-annotations, Jackson-core, jackson-datatype-joda, jackson-jaxrs-base, jackson-jaxrs-xml-provider, jackson-jaxrs-json-provider, jackson-databind, jackson-dataformat-xml, jackson-module-jaxb-annotations

DESCRIPTION:

Annotations that make binding POJO's to Jackson serialization and deserialization mechanisms easy.

Jackson JAX-RS Helper; Allows Jackson to hook into Jersey JAX-RS implementation (JSR-311)

Joda Time Parsing Support

Jackson JSON->POJO Binding Framework. Jackson makes it extremely easy to bind POJOs and POGO's to JSON, XML, CSV and other serialization formats.

JSON<->POJ(G)O Binding

Jackson JSON binding for Joda-Time.

Jackson JAX-RS Helper; Allows Jackson to hook into Jersey JAX-RS implementation (JSR-311)

NOTICE:

Jackson is dual-licensed under two alternative popular Open Source licenses: Apache (AL 2.0) and GNU Lesser GPL (LGPL 2.1). You choose one or the other, as necessary (if you want to redistribute the code -- for use, you do not need license), and abide by the license rules as defined by the respective license agreement (and only that one).

All code contributions must be licensable under these two licenses. For Apache License v2.0, see *Appendix A - Apache License v2.0*.

http://wiki.fasterxml.com/JacksonDownload

SOFTWARE: JAKARTA COMMONS

DESCRIPTION:

The Commons is an Apache project focused on all aspects of reusable Java components.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: JAKARTA ORO

DESCRIPTION:

The Commons is an Apache project focused on all aspects of reusable Java components.

The Jakarta-ORO Java classes are a set of text-processing Java classes that provide Perl5-compatible regular expressions, AWK-like regular expressions, glob expressions, and utility classes for performing substitutions, splits, filtering filenames, etc. This library is the successor to the OROMatcher, AwkTools, PerlTools, and TextTools libraries originally from ORO, Inc.

NOTICE:

This product includes software developed by the Apache Software Foundation (*http://www.apache.org/*).

 The Apache Software License, Version 1.1

 Copyright (c) 2000-2002 The Apache Software Foundation. All rights reserved.

 Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

 3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

    "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

  Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

 4. The names "Apache" and "Apache Software Foundation", "Jakarta-Oro" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

 5. Products derived from this software may not be called "Apache" or "Jakarta-Oro", nor may "Apache" or "Jakarta-Oro" appear in their name, without prior written permission of the Apache Software Foundation.

 THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

 ==

 This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <*http://www.apache.org/*>.

 Portions of this software are based upon software originally written by Daniel F. Savarese. We appreciate his contributions.

SOFTWARE: JAKARTA TAGLIBS

DESCRIPTION:

This project is an open source repository for JSP custom tag libraries. For a general description, please see the official java.sun.com page on JSP(tm) Tag Libraries. Jakarta Taglibs also hosts the development tree of the reference implementation (RI) for the JSTL specification - the Jakarta Standard Taglib. Versions 1.0 and 1.1 of JSTL (JSP Standard Tag Library) are implemented here.

NOTICE:

Some TagLibs components are licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

The Apache Software License, Version 1.1

Copyright (c) 1999 The Apache Software Foundation. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgement:

    "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

   Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

 4. The names "The Jakarta Project", "Tomcat", and "Apache Software   Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written   permission, please contact apache@apache.org.

 5. Products derived from this software may not be called "Apache"   nor may "Apache" appear in their names without prior written permission of the Apache Group.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.

SOFTWARE: JAVA COMMUNICATIONS

DESCRIPTION:

Sun provides an API extension for communicating with parallel and serial ports, specifically for Solaris and Windows environments.

NOTICE:

This software is licensed under the Sun Binary Code License. See *Appendix H - Sun Binary Code License for Java Communications*.

SOFTWARE Java Advanced Imaging

DESCRIPTION:

Java Advanced Imaging (JAI) is a Java platform extension API that provides a set of interfaces that support a simple, high-level programming model which allows developers to create their own image manipulation routines.

NOTICE:

DO NOT TRANSLATE OR LOCALIZE.

```
%% The following software may be included in this product:  NeuQuant Color Quantization.  Use of any
of this software is governed by the terms of the license below:


* NeuQuant Neural-Net Quantization Algorithm
 * ------------------------------------------
 *
 * Copyright (c) 1994 Anthony Dekker
 *
 * NEUQUANT Neural-Net quantization algorithm by Anthony Dekker, 1994.
 * See "Kohonen neural networks for optimal colour quantization"
 * in "Network: Computation in Neural Systems" Vol. 5 (1994) pp 351-367.
 * for a discussion of the algorithm.
 * See also  http://www.acm.org/~dekker/NEUQUANT.HTML
 *
 * Any party obtaining a copy of these files from the author, directly or
 * indirectly, is granted, free of charge, a full and unrestricted irrevocable,
 * world-wide, paid up, royalty-free, nonexclusive right and license to deal
 * in this software and documentation files (the "Software"), including without
 * limitation the rights to use, copy, modify, merge, publish, distribute, sublicense,
 * and/or sell copies of the Software, and to permit persons who receive
 * copies from any such party to do so, with the only requirement being
 * that this copyright notice remain intact.
 */


%% The following software may be included in this product: Oct-Tree Color Quantization.  Use of any
of this software is governed by the terms of the license below:


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Permission is hereby granted, free of charge, to any person obtaining a    %
% copy of this software and associated documentation files ("ImageMagick"), %
% to deal in ImageMagick without restriction, including without limitation  %
% the rights to use, copy, modify, merge, publish, distribute, sublicense,  %
% and/or sell copies of ImageMagick, and to permit persons to whom the      %
% ImageMagick is furnished to do so, subject to the following conditions:    %
%                                                                            %
% The above copyright notice and this permission notice shall be included in %
% all copies or substantial portions of ImageMagick.                        %
%                                                                            %
% The software is provided "as is", without warranty of any kind, express or %
% implied, including but not limited to the warranties of merchantability,   %
% fitness for a particular purpose and noninfringement.  In no event shall   %
% E. I. du Pont de Nemours and Company be liable for any claim, damages or   %
% other liability, whether in an action of contract, tort or otherwise,      %
% arising from, out of or in connection with ImageMagick or the use or other %
% dealings in ImageMagick.                                                   %
```

```
%                                                                    %
%  Except as contained in this notice, the name of the E. I. du Pont de    %
%  Nemours and Company shall not be used in advertising or otherwise to    %
%  promote the sale, use or other dealings in ImageMagick without prior    %
%  written authorization from the E. I. du Pont de Nemours and Company.    %
%                                                                    %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

This software is licensed under the Sun Binary Code License. See *Appendix L - Sun Binary Code License for Java Advanced Imaging*.

SOFTWARE: Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files 6

DESCRIPTION:

crypto library

NOTICE:

This software is licensed under the Oracle Binary Code License. See *Appendix J - Oracle Binary Code License for Java and JavaFX Technologies.*

SOFTWARE: JAVA EXPRESSION PARSER

DESCRIPTION:

JEP is a Java library for parsing and evaluating mathematical expressions. With this package you can allow your users to enter an arbitrary formula as a string, and instantly evaluate it. Jep supports user defined variables, constants, and functions. A number of common mathematical functions and constants are included.

NOTICE:

Portion(s) of Axeda software include Java Expression Parser (JEP) software. The inclusion of JEP is covered by a license between Axeda and Singular Systems.

Contact Axeda Corporation for more details

SOFTWARE: Java Mail

DESCRIPTION:

The JavaMail API provides a platform-independent and protocol-independent framework to build mail and messaging applications.

NOTICE:

This software is licensed under the Sun Software License Agreement. See *Appendix M - Sun Software License for JavaMail 1.4*.

SOFTWARE: Java Activation Framework

DESCRIPTION:

With the JavaBeans Activation Framework standard extension, developers who use Java technology can determine the type of an arbitrary piece of data, encapsulate access to it, discover the operations available on it, and instantiate the appropriate bean to perform said operation(s).

NOTICE:

This software is licensed under the Sun Software License Agreement. See *Appendix K - Sun Software License for JavaBeans Activation Framework 1.1*.

SOFTWARE: JAVA TAR

DESCRIPTION:

The package com.ice.tar implements a tar archive io package. This package allows you to create, and extract tar archives. Since the package uses InputStream and OutputStream, it is possible to combine this package with the java.util.zip package to handle .tar.gz files.

NOTICE:

This work was authored by Timothy Gerard Endres, time@gjt.org.

This work has been placed into the public domain.

You are free to use this work in any way you wish.

DISCLAIMER

THIS SOFTWARE IS PROVIDED AS-IS, WITH ABSOLUTELY NO WARRANTY. YOU ASSUME ALL RESPONSIBILITY FOR ANY AND ALL CONSEQUENCES THAT MAY RESULT FROM THE USE OF THIS SOFTWARE!

SOFTWARE: JAVA TOPOLOGY SUITE (VIVIDSOLUTIONS)

DESCRIPTION:

The JTS Topology Suite is a Java API that implements a core set of spatial data operations using an explicit precision model and robust geometric algorithms.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: JAVA VALIDATION API

DESCRIPTION:

JSR 303 Reference API

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: JAVA3D

DESCRIPTION:

The Java 3D API enables the creation of three-dimensional graphics applications and Internet-based 3D applets. It provides high-level constructs for creating and manipulation 3D geometry and building the structures used in rendering that geometry. With this software, you can efficiently define and render very large virtual worlds.

NOTICE:

This software is licensed under the Sun Binary Code License. See *Appendix I - Sun Binary Code License for Java3D*.

SOFTWARE: JAVAX INJECT

DESCRIPTION:

Javax Inject - JSR-330: Dependency Injection for Java.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
=====================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,   ==
==  Version 2.0, in this case for the Apache Axis distribution.        ==
=====================================================================
```

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

SOFTWARE: JAXB

DESCRIPTION:

Java Architecture for XML Binding (JAXB) allows Java developers to map Java classes to XML representations. JAXB provides two main features: the ability to marshal Java objects into XML and the inverse, i.e. to unmarshal XML back into Java objects.

NOTICE:

JAXB is initially released under the CDDL v1.1 / GPL v2 + classpath exception dual license. Axeda has elected to distribute components of JAXB under the CDDL v1.1. See *Appendix F - Common Development and Distribution License v1.0*.

Source availability: *http://jaxb.java.net/2.1.13/*

SOFTWARE: JAXEN

DESCRIPTION:

The jaxen project is a Java XPath Engine. jaxen is a universal object model walker, capable of evaluating XPath expressions across multiple models. Currently supported are dom4j, JDOM, and DOM.

NOTICE:

Portion(s) of Axeda software contain software developed by the Jaxen Project (*http://www.jaxen.org*).

Copyright (C) 2000-2002 bob mcwhirter & James Strachan. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions, and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the disclaimer that follows these conditions in the documentation and/or other materials provided with the distribution.

3. The name "Jaxen" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact license@jaxen.org.

4. Products derived from this software may not be called "Jaxen", nor may "Jaxen" appear in their name, without prior written permission from the Jaxen Project Management (pm@jaxen.org).

In addition, we request (but do not require) that you include in the end-user documentation provided with the redistribution and/or in the software itself an acknowledgement equivalent to the following:

"This product includes software developed by the Jaxen Project (*http://www.jaxen.org/*).

Alternatively, the acknowledgment may be graphical using the logos available at *http://www.jaxen.org/*.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE Jaxen AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

 This software consists of voluntary contributions made by many individuals on behalf of the Jaxen Project and was originally created by bob mcwhirter <bob@werken.com> and   James Strachan <jstrachan@apache.org>. For more information on the Jaxen Project, please see <(*http://www.jaxen.org/*>.

SOFTWARE: JAX-RPC

DESCRIPTION:

Java API for XML-based RPC (Remote Procedure Call)

NOTICE:

Axeda distributes components of JAX-RPC under the CDDL v1.1. See *Appendix F - Common Development and Distribution License v1.0*. Source availability: *https://java.net/projects/jax-rpc/*

SOFTWARE: JBOSS

DESCRIPTION:

JBoss Application Server (JBoss AS, or simply JBoss) is an application server that implements the Java Platform, Enterprise Edition (Java EE).

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: JBOSS LOGGING

DESCRIPTION:

TRANSITIVE (hibernate-validator-4.3.1.Final.jar)

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: Java REST Annotations (JRA)

DESCRIPTION:

The Java REST annotations are annotations to help service creators build REST style services.

Transitive to CXF.

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: Java SE Development Kit (JDK)

DESCRIPTION:

Java Platform, Standard Edition (Java SE) lets you develop and deploy Java applications on desktops and servers, as well as in today's demanding embedded environments. Java offers the rich user interface, performance, versatility, portability, and security that today's applications require.

This software is licensed under the Oracle Binary Code License. See *Appendix J - Oracle Binary Code License for Java and JavaFX Technologies.*

SOFTWARE: Jersey Core, Jersey Core Client, Jersey Server, Jersey Multipart, mimepull

DESCRIPTION:

Jersey Core and Jersey Core Client

Jersey Core includes common code for the Jersey JAX-RS RI project.

JSR 311 Implementation: Jersey Core Server makes building simple web services easy as the reference implementation of the JAX-RS API.

Jersey Multipart form handling makes chunking and transfer between a client and server seamless for software developers

Mimepull - Streaming API for processing large MIME attachments

Axeda distributes these components under the CDDL v1.1. See *Appendix Q – Common Development and Distribution License v1.1*.

https://glassfish.java.net/public/CDDL+GPL_1_1.html

SOFTWARE: Jettison

DESCRIPTION:

Jettison is a collection of Java APIs (like STaX and DOM) which read and write JSON. This allows nearly transparent enablement of JSON based web services in services frameworks like CXF or XML serialization frameworks like XStream.

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*

SOFTWARE: JDOM

DESCRIPTION:

JDOM provides provide a complete, Java-based solution for accessing, manipulating, and outputting XML data from Java code.

Portion(s) of Axeda products contain software developed by the JDOM project (*http://www.jdom.org*).

Copyright (C) 2001 Brett McLaughlin & Jason Hunter. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions, and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the disclaimer that follows these conditions in the documentation and/or other materials provided with the distribution.

3. The name "JDOM" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact license@jdom.org.

4. Products derived from this software may not be called "JDOM", nor may "JDOM" appear in their name, without prior written permission from the JDOM Project Management (*pm@jdom.org)*.

In addition, we request (but do not require) that you include in the end-user documentation provided with the redistribution and/or in the software itself an acknowledgement equivalent to the following:

   "This product includes software developed by the JDOM Project (*http://www.jdom.org/)*."

Alternatively, the acknowledgment may be graphical using the logos available at *http://www.jdom.org/images/logos*.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JDOM AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the JDOM Project and was originally created by Brett McLaughlin <brett@jdom.org> and Jason Hunter <jhunter@jdom.org>. For more information on the JDOM Project, please see <*http://www.jdom.org*/>.

SOFTWARE: JGOODIES

DESCRIPTION:

JGoodies focuses on Java look, UI design, and usability. JGoodies provides articles, libraries, example applications, desktop patterns and a Swing application architecture.

NOTICE:

Copyright (c) 2001-2004 JGoodies Karsten Lentzsch. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

o Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

o Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

o Neither the name of JGoodies Karsten Lentzsch nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER

CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE:JGROUPS-ALL

DESCRIPTION:

Cache synchronization. Used by Hibernate.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: JIS X 0208 (1990) to Unicode mappings

DESCRIPTION:
NO DESCRIPTION IN XLS

EXHIBIT 1
UNICODE, INC. LICENSE AGREEMENT - DATA FILES AND SOFTWARE

Unicode Data Files include all data files under the directories http://www.unicode.org/Public/, http://www.unicode.org/reports/, and http://www.unicode.org/cldr/data/. Unicode Data Files do not include PDF online code charts under the directory http://www.unicode.org/Public/. Software includes any source code published in the Unicode Standard or under the directories http://www.unicode.org/Public/, http://www.unicode.org/reports/, and http://www.unicode.org/cldr/data/.

NOTICE TO USER: Carefully read the following legal agreement. BY DOWNLOADING, INSTALLING, COPYING OR OTHERWISE USING UNICODE INC.'S DATA FILES ("DATA FILES"), AND/OR SOFTWARE ("SOFTWARE"), YOU UNEQUIVOCALLY ACCEPT, AND AGREE TO BE BOUND BY, ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE, DO NOT DOWNLOAD, INSTALL, COPY, DISTRIBUTE OR USE THE DATA FILES OR SOFTWARE.

COPYRIGHT AND PERMISSION NOTICE

Copyright © 1991-2013 Unicode, Inc. All rights reserved. Distributed under the Terms of Use in http://www.unicode.org/copyright.html.

Permission is hereby granted, free of charge, to any person obtaining a copy of the Unicode data files and any associated documentation (the "Data Files") or Unicode software and any associated documentation (the "Software") to deal in the Data Files or Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Data Files or Software, and to permit persons to whom the Data Files or Software are furnished to do so, provided that (a) the above copyright notice(s) and this permission notice appear with all copies of the Data Files or Software, (b) both the above copyright notice(s) and this permission notice appear in associated documentation, and (c) there is clear notice in each modified Data File or in the Software as well as in the documentation associated with the Data File(s) or Software that the data or software has been modified.

THE DATA FILES AND SOFTWARE ARE PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR

CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE DATA FILES OR SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in these Data Files or Software without prior written authorization of the copyright holder.

Unicode and the Unicode logo are trademarks of Unicode, Inc. in the United States and other countries. All third party trademarks referenced herein are the property of their respective owners.

SOFTWARE: JLINE

DESCRIPTION:

JLine is a Java library for handling console input. It is similar in functionality to BSD editline and GNU readline. People familiar with the readline/editline capabilities for modern shells (such as bash and tcsh) will find most of the command editing features of JLine to be familiar.

NOTICE:

Copyright (c) 2002-2006, Marc Prud'hommeaux *mwp1@cornell.edu*. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of JLine nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: Joda-Time, v1.6.2, v2.1, v2.2

DESCRIPTION:

For v1.6.2: Joda-Time provides a quality replacement for the Java date and time classes. The design allows for multiple calendar systems, while still providing a simple API.

For v2.1: Date and time process library that is often regarded as the missing Date and Time library in the Java Standard Library because of how well it works at processing date and time information compared to the existing Date and Calendar API's in the JDK.

For v2.2: Date Handling Library

NOTICE:

This product includes software developed by Joda.org (http://www.joda.org/).

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: jQuery and jQuery-UI

NOTICE:

Copyright 2013 jQuery Foundation and other contributors http://jquery.com/

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: jQuery Globalize

DESCRIPTION:

Used for globalization of text like dates and currency. Used to provide text localization of static UI text strings. Shows a loading icon in UI. Used for modifying DOM elements and is a transitive dependency for kendo ui. Text Truncation framework.

NOTICE:

Copyright 2013 jQuery Foundation and other contributors http://jquery.com/

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: jQuery Localization, Spin.js

DESCRIPTION:

The MIT License (MIT)

Shows a loading icon in UI

NOTICE:

Copyright (c) <year> <copyright holders>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: jQuery Scroller

DESCRIPTION:

Custom scrollbar plugin that's fully customizable with CSS. Features vertical/horizontal scrolling, mouse-wheel support (via jQuery mousewheel plugin), scrolling buttons, scroll inertia with easing, auto-adjustable scrollbar length, nested scrollbars, scroll-to functionality, user defined callbacks and much more.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: JSSE

DESCRIPTION:

Java Secure Socket Extension

NOTICE:

This software is licensed under the Oracle Binary Code License. See *Appendix J - Oracle Binary Code License for Java and JavaFX Technologies.*

SOFTWARE: Jscience

DESCRIPTION:

JSR-275 Java Units Reference Implementation

NOTICE:

/*

```
* JScience - Java Tools and Libraries for the Advancement of Sciences
* Copyright (c) 2005-2010, JScience (http://jscience.org/)
* All rights reserved.
*
* Redistribution and use in source and binary forms, with or without
* modification, are permitted provided that the following conditions are met:
*
*    1. Redistributions of source code must retain the above copyright
*       notice, this list of conditions and the following disclaimer.
*
*    2. Redistributions in binary form must reproduce the above copyright
*       notice, this list of conditions and the following disclaimer in the
*       documentation and/or other materials provided with the distribution.
*
* THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
* "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
* LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
* A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR
* CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
* EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO,
* PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR
* PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF
* LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING
* NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
* SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/
```

Source can be found here: *https://java.net/projects/jscience*

SOFTWARE: JSON

DESCRIPTION:

JSON (JavaScript Object Notation) is a lightweight data-interchange format.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: json-lib

DESCRIPTION:

JSON-lib is a java library for transforming beans, maps, collections, java arrays and XML to JSON and back again to beans

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: JSON.simple

DESCRIPTION:

JSON.simple is a simple Java toolkit for JSON. You can use JSON.simple to encode or decode JSON text. Direct dependency.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Software for this build: *https://code.google.com/p/json-simple/*

SOFTWARE: JUNIT

DESCRIPTION:

JUnit is a simple framework to write repeatable tests. It is an instance of the xUnit architecture for unit testing frameworks. This is currently included with Axeda® Policy Server but not used at run-time and will be removed in future release.

NOTICE:

This software is licensed under the Common Public License.

SOFTWARE: KahaDB

DESCRIPTION:

KahaDB is a file based persistence database.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: KRYO, MINLOG, REFLECTASM

DESCRIPTION:

Kryo is a fast and efficient object graph serialization framework for Java. The goals of the project are speed, efficiency, and an easy to use API. The project is useful any time objects need to be persisted, whether to a file, database, or over the network.

Minlog is a Dependency for Kryo jar (provided with Kryo distribution). Minimal overhead Java logging.

Reflectasm is a Dependency for Kryo jar (provided with Kryo distribution). High performance Java reflection.

NOTICE:

License for Kryo, Minlog, and Reflectasm.

[The BSD License]
Copyright (c) 2008, Nathan Sweet

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

   * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

   * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* Neither the name of Esoteric Software nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: LIBDES

DESCRIPTION:

The LibDes kit builds a DES encryption library and a DES encryption program. It supports ecb, cbc, ofb, cfb, triple ecb, triple cbc, triple ofb, triple cfb, and MIT`s pcbc encryption modes and also has a fast implementation of crypt(3). It contains support routines to read keys from a terminal, generate a random key, generate a key from an arbitrary length string, read/write encrypted data from/to a file descriptor. The implementation was written so as to conform with the manual entry for the des_crypt(3) library routines from MIT`s project Athena.

NOTICE:

Copyright (C) 1995-1997 Eric Young (*eay@mincom.oz.au*). All rights reserved.

This package is an DES implementation written by Eric Young (*eay@mincom.oz.au*). The implementation was written so as to conform with MIT's libdes.

This library is free for commercial and non-commercial use as long as the following conditions are adhered to. The following conditions apply to all code found in this distribution.

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed.

If this package is used in a product, Eric Young should be given attributionas the author of that the SSL library. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

This product includes software developed by Eric Young (eay@mincom.oz.au)

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS'" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The license and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution license [including the GNU Public License.]

The reason behind this being stated in this direct manner is past experience in code simply being copied and the attribution removed from it and then being distributed as part of other packages. This implementation was a non-trivial and unpaid effort.

SOFTWARE: LIBTAR

DESCRIPTION:

libtar is a C library for manipulating POSIX tar files. It handles adding and extracting files to/from a tar archive.

NOTICE:

Copyright (c) 1998-2002 University of Illinois Board of Trustees

Copyright (c) 1998-2002 Mark D. Roth. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

   This product includes software developed by the University of Illinois at Urbana, and their contributors.

4. The University nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE TRUSTEES AND CONTRIBUTORS ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE TRUSTEES OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: LOG4J

DESCRIPTION:

log4j provides support for logging at **runtime** without modifications to the application binary. The log4j package is designed so that these statements can remain in shipped code without incurring a heavy performance cost. Logging behavior can be controlled by editing a configuration file, without touching the application binary.

NOTICE:

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: Mate

DESCRIPTION:

tag-based, event-driven Flex framework.

NOTICE:

This product includes software developed at The Apache Software Foundation (*http://www.apache.org/*

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: MICROSTAR XML PARSER

DESCRIPTION:

AElfred is a small, fast XML parser optimized for use with applets, where Java 1.0.2 compatibility and download time are major requirements. AElfred supports almost the entire feature set of the XML 1.0 recommendation including Unicode, defaulted attribute values, external DTD subsets, external entities, and flagging of ignorable whitespace. The distribution also contains a native SAX (Simple API for XML) driver so that you can interchange AElfred with other SAX-supported parsers without rewriting your code.

NOTICE:

AElfred, Version 1.1

Microstar's Java-Based XML Parser

From: *http://www.microstar.com/XML/README.txt, 980309*

Copyright (c) 1997, 1998 by Microstar Software Ltd.

Author: David Megginson dmeggins@microstar.com

Home Page: *http://www.microstar.com/XML/*

AElfred is free for both commercial and non-commercial use and redistribution, provided that Microstar's copyright (above) and disclaimer (below) are retained intact.

DISCLAIMER

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of merchantability or fitness for a particular purpose. Please use it AT YOUR OWN RISK.

SOFTWARE: MOCK OBJECTS

DESCRIPTION:

Mock Objects is a dynamic mock library.

NOTICE:

This product includes software developed by the Apache Software Foundation (*http://www.apache.org/*).

The Apache Software License, Version 1.1

Copyright (c) 2001-2004 The Apache Software Foundation. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

   "This product includes software developed by the Apache Software Foundation (*http://www.apache.org/*)."

Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

4. The name "MockObjects" must not be used to endorse or promote products derived from this software

without prior written permission. For written permission, please contact apache@apache.org.

5. Products derived from this software may not be called "MockObjects", nor may "MockObjects" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <*http://www.apache.org*/>.

SOFTWARE: MOSQUITTO

DESCRIPTION:

Open source MQTT library.

NOTICE:

Copyright (c) 2009-2011 Roger Light <roger@atchoo.org>

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of mosquitto nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: NEKOHTML

DESCRIPTION:

Simple HTML scanner and tag balancer that enables application programmers to parse HTML documents and access the information using standard XML interfaces. The parser can scan HTML files and "fix up" many common mistakes that human (and computer) authors make in writing HTML documents.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: OBJENESIS

DESCRIPTION:

A library for instantiating Java objects. Objenesis is a Dependency for Kryo jar (provided with Kryo distribution).

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: OPENDS

Axeda® Policy Server software contains an open source LDAP directory server branded as OpenDS. The OpenDS software provided in Axeda® Policy Server is covered by two licenses:`

- *OpenDS*
- *BerkeleyDB* (OpenDS includes and uses the BerkeleyDB database. Axeda® Policy Server does not call or directly use BerkeleyDB. For purposes of the BerkeleyDB license (below), OpenDS is the "user".)

NOTICE:

Licenses and terms for both products are provided in this section.

OpenDS

See *Appendix F - Common Development and Distribution License v1.0*.

Source availability: https://opends.dev.java.net/source/browse/opends/trunk/opends/

Berkeley DS

LICENSE,v 1.5 2006/01/03 21:55:06 bostic Exp

The following is the license that applies to this copy of the Berkeley DB software. For a license to use the Berkeley DB software under conditions other than those described here, or to purchase support for this software, please contact Sleepycat Software by email at info@sleepycat.com, or on the Web at *http://www.sleepycat.com*.

Copyright (c) 2002-2006, Sleepycat Software. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Redistributions in any form must be accompanied by information on how to obtain complete source code for the DB software and any accompanying software that uses the DB software. The source code must either be included in the distribution or be available for no more than the cost of distribution plus a nominal fee, and must be freely redistributable under reasonable conditions. For an executable file, complete source code means the source code for all modules it contains. It does not include source code for modules or files that typically accompany the major components of the operating system on which the executable file runs.

THIS SOFTWARE IS PROVIDED BY SLEEPYCAT SOFTWARE ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, ARE DISCLAIMED. IN NO EVENT SHALL SLEEPYCAT SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Source code availability:

http://www.oracle.com/technology/software/products/berkeley-db/je/index.html

SOFTWARE: OPENGIS

DESCRIPTION:

NOTICE:

Software Notice

This OGC work (including software, documents, or other related items) is being provided by the copyright holders under the following license. By obtaining, using and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions:

Permission to use, copy, and modify this software and its documentation, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on ALL copies of the software and documentation or portions thereof, including modifications, that you make:

The full text of this NOTICE in a location viewable to users of the redistributed or derivative work.

Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, a short notice of the following form (hypertext is preferred, text is permitted) should be used within the body of any redistributed or derivative code: "Copyright © [$date-of-document] Open Geospatial Consortium, Inc. All Rights Reserved. http://www.opengeospatial.org/ogc/legal (Hypertext is preferred, but a textual representation is permitted.)

Notice of any changes or modifications to the OGC files, including the date changes were made. (We recommend you provide URIs to the location from which the code is derived.)

THIS SOFTWARE AND DOCUMENTATION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENTATION WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS.

COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENTATION.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the software without specific, written prior permission. Title to copyright in this software and any associated documentation will at all times remain with copyright holders.

SOFTWARE OpenSAML

DESCRIPTION:

OpenSAML is a set of open source C++ & Java libraries meant to support developers working with the Security Assertion Markup Language (SAML).

SOFTWARE: OPENSSL

DESCRIPTION:

OpenSSL is an Open Source toolkit that implements the Secure Sockets Layer (SSL v2/v3) and Transport Layer Security (TLS v1) protocols as well as a full-strength general purpose cryptography library. It implements basic cryptographic functions and provides various utility functions.

NOTICE:

Portion(s) of Axeda® products include software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/); cryptographic software written by Eric Young (eay@cryptsoft.com); and software written by Tim Hudson (tjh@cryptsoft.com).

 LICENSE ISSUES

 ==============

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

 OpenSSL License

 ==

Copyright (c) 1998-2011 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment:

    "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without

   prior written permission. For written permission, please contact openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment:

    "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR

OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==

 This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

 Original SSLeay License

 /Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com). The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

    "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)"
   The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).

4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement:

    "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

SOFTWARE: OPENSYMPHONY QUARTZ

DESCRIPTION:

Quartz scheduler. Handles scheduling one time and recurring tasks. Tasks are persisted in the database. Quartz is cluster safe.

NOTICE:

Copyright 2004-2005 OpenSymphony.

This product includes software developed by The Apache Software Foundation (*http://www.apache.org/*).

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE: ORACLE JDBC DRIVERS

DESCRIPTION:

Oracle JDBC drivers provide an API extension for communicating with databases using JDK 1.4 and 1.5.

NOTICE:

This software is licensed under the Oracle Technology License. See *Appendix G - Oracle Technology Network Development and Distribution License*.

SOFTWARE: OS Cache

DESCRIPTION:

OSCache is "a Java framework" developed by OpenSymphony that makes it easy to cache content in Web applications.

NOTICE:

This product includes software developed by the

OpenSymphony Group (*http://www.opensymphony.com/*).

```
/* ================================================================
 * The OpenSymphony Software License, Version 1.1
 *
 * (this license is derived and fully compatible with the Apache Software
 * License - see http://www.apache.org/LICENSE.txt)
 *
 * Copyright (c) 2001-2004 The OpenSymphony Group. All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 *
 * 1. Redistributions of source code must retain the above copyright
 *    notice, this list of conditions and the following disclaimer.
 *
 * 2. Redistributions in binary form must reproduce the above copyright
 *    notice, this list of conditions and the following disclaimer in
 *    the documentation and/or other materials provided with the
 *    distribution.
 *
 * 3. The end-user documentation included with the redistribution,
```

```
 *      if any, must include the following acknowledgment:
 *         "This product includes software developed by the
 *          OpenSymphony Group (http://www.opensymphony.com/)."
 *      Alternately, this acknowledgment may appear in the software itself,
 *      if and wherever such third-party acknowledgments normally appear.
 *
 * 4. The names "OpenSymphony" and "The OpenSymphony Group"
 *    must not be used to endorse or promote products derived from this
 *    software without prior written permission. For written
 *    permission, please contact license@opensymphony.com .
 *
 * 5. Products derived from this software may not be called "OpenSymphony"
 *    or "OSCache", nor may "OpenSymphony" or "OSCache" appear in their
 *    name, without prior written permission of the OpenSymphony Group.
 *
 * THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED
 * WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE
 * DISCLAIMED.  IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR
 * ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
 * SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
 * LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF
 * USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND
 * ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY,
 * OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT
 * OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
 * SUCH DAMAGE.
 * ====================================================================
 */
```

SOFTWARE: OSGi Service Platform Release 4

DESCRIPTION:

Dependency Injection Container. Transitive to *activemq-core*.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Software for this build: *http://www.osgi.org/Release4/HomePage*.

SOFTWARE: Proxool

DESCRIPTION:

Proxool is a Java connection pool.

NOTICE:

This product includes software developed by the Proxool project (The latest version is available at *http://proxool.sourceforge.net/*).

==

Copyright (c) 2002 - 2003 Proxool. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment:

"This product includes software developed by the Proxool project (The latest version is available at http://proxool.sourceforge.net/)."

4. The name "Proxool" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact bill@logicalcobwebs.co.uk.

5. Products derived from this software may not be called "Proxool" nor may "Proxool" appear in their names without prior written permission of the Proxool Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment:

"This product includes software developed by the Proxool project (The latest version is available at http://proxool.sourceforge.net/)."

THIS SOFTWARE IS PROVIDED BY THE PROXOOL PROJECT ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROXOOL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

===

This software consists of voluntary contributions made by many individuals on behalf of the Proxool Project. For more information on the Proxool Project please see The latest version is available at http://proxool.sourceforge.net.

SOFTWARE: PuTTY

DESCRIPTION:

PuTTY is a terminal emulator application which can act as a client for the SSH, Telnet, rlogin, and raw TCP computing protocols.

NOTICE:

PuTTY is copyright 1997-2007 Simon Tatham.

Portions copyright Robert de Bath, Joris van Rantwijk, Delian Delchev, Andreas Schultz, Jeroen Massar, Wez Furlong, Nicolas Barry, Justin Bradford, Ben Harris, Malcolm Smith, Ahmad Khalifa, Markus Kuhn, and CORE SDI S.A.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES

OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: RHINO

DESCRIPTION:

Rhino is an open-source implementation of JavaScript written entirely in Java. It is typically embedded into Java applications to provide scripting to end users.

NOTICE:

Version: MPL 1.1/GPL 2.0

The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.mozilla.org/MPL/. See also *Appendix D - Mozilla Public License v1.1*.

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License.

The Original Code is Rhino code, released May 6, 1999.

The Initial Developer of the Original Code is Netscape Communications Corporation.

Portions created by the Initial Developer are Copyright (C) 1997-1999 the Initial Developer. All Rights Reserved.

 Contributor(s): Roger Lawrence, Mike McCabe, Igor Bukanov, Ethan Hugg, Bob Jervis, Terry Lucas, Milen Nankov

Alternatively, the contents of this file may be used under the terms of the GNU General Public License Version 2 or later (the "GPL"), in which case the provisions of the GPL are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the GPL and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replacing them with the notice and other provisions required by the GPL. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the GPL.

Source code availability: *https://developer.mozilla.org/en/Rhino_downloads_archive*

SOFTWARE: SAXPATH

DESCRIPTION:

Simple API for Xpath providing a single point for Xpath expression parsing. Axeda® Enterprise Server software contains third-party code from SAXPath.

NOTICE:

Portion(s) of Axeda products include software developed by the SAXPath Project (*http://www.saxpath.org/*).

Copyright (C) 2000-2002 werken digital.

 All rights reserved.

 Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

 1. Redistributions of source code must retain the above copyright notice, this list of conditions, and the following disclaimer.

 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the disclaimer that follows these conditions in the documentation and/or other materials provided with the distribution.

 3. The name "SAXPath" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact license@saxpath.org.

 4. Products derived from this software may not be called "SAXPath", nor may "SAXPath" appear in their name, without prior written permission from the SAXPath Project Management (pm@saxpath.org).

In addition, we request (but do not require) that you include in the end-user documentation provided with the redistribution and/or in the software itself an acknowledgement equivalent to the following:

"This product includes software developed by the SAXPath Project (*http://www.saxpath.org/*)."

Alternatively, the acknowledgment may be graphical using the logos available at http://www.saxpath.org/

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE SAXPath AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: SHIFTONE-ARBOR

DESCRIPTION:

Library for easily reading XML into user defined Java beans.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: SLF4J

DESCRIPTION:

Simple facade or abstraction for various logging frameworks.

NOTICE:

Copyright (c) 2004-2008 QOS.ch. All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

 The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

 THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE: SMPPAPI

DESCRIPTION:

Library for communicating over SMS.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE: SPIDERMONKEY

DESCRIPTION:

SpiderMonkey is the code-name for the Mozilla's C implementation of JavaScript. This is a JavaScript engine.

NOTICE:

Axeda has not modified SpiderMonkey. SpiderMonkey is supplied with the Axeda® Access Screen Sharing module only. The Axeda® Access Screen Sharing module is separate and independent and not linked to any other proprietary Axeda software in any way.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.mozilla.org/MPL/. See also *Appendix D - Mozilla Public License v1.1*.

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License.

The Original Code is Mozilla Communicator client code, released

March 31, 1998.

The Initial Developer of the Original Code is Netscape Communications Corporation.

Portions created by the Initial Developer are Copyright (C) 1998 the Initial Developer. All Rights Reserved.

Contributor(s):

  Michael Ang <mang@subcarrier.org>

  Kevin Buhr <buhr@stat.wisc.edu>

Alternatively, the contents of this file may be used under the terms of either of the GNU General Public License Version 2 or later (the "GPL"), or the GNU Lesser General Public License Version 2.1 or later (the "LGPL"), in which case the provisions of the GPL or the LGPL are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of either the GPL or the LGPL, and not to allow others to use your version of this file under the terms of the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the GPL or the LGPL. If you do not delete the provisions above, a recipient may use your version of this file under the terms of any one of the MPL, the GPL or the LGPL.

Source code availability: http://ftp.mozilla.org/pub/mozilla.org/js/

SOFTWARE: SPRINGFRAMEWORK

DESCRIPTION:

Spring is a dependency injection framework, used for streamlining code and speeding agile development.

NOTICE:

Portion(s) of Axeda® products include software developed by the Spring Framework Project (http://www.springframework.org). This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
 =========================================================================
 == NOTICE file corresponding to section 4 d of the Apache License,  ==
 == Version 2.0, for the Spring Framework distribution.          ==
 =========================================================================
```
 This product includes software developed by the Apache Software Foundation (http://www.apache.org).
 The end-user documentation included with a redistribution, if any, must include the following acknowledgement:

     "This product includes software developed by the Spring Framework Project (http://www.springframework.org)."
   Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

The names "Spring", "Spring Framework", and "Spring Web Flow" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact enquiries@springsource.com.

SOFTWARE: SPRING LDAP

DESCRIPTION:

Spring LDAP is a Java library for simplifying LDAP operations, based on the pattern of Spring's JdbcTemplate. The framework relieves the user of common chores, such as looking up and closing contexts, looping through results, encoding/decoding values and filters, and more.

NOTICE:

Portion(s) of Axeda® products include software developed by the Spring Framework Project (http://www.springframework.org). This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
========================================================================
== NOTICE file corresponding to section 4 d of the Apache License,  ==
== Version 2.0, for the Spring Framework distribution.            ==
========================================================================
```
This product includes software developed by the Apache Software Foundation (http://www.apache.org).

The end-user documentation included with a redistribution, if any, must include the following acknowledgement:

   "This product includes software developed by the Spring Framework Project (http://www.springframework.org)."
  Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

   The names "Spring", "Spring Framework", and "Spring Web Flow" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact enquiries@springsource.com.

SOFTWARE: SPRING BATCH

DESCRIPTION:

Spring Batch is a lightweight, comprehensive batch framework designed to enable the development of robust batch applications vital for the daily operations of enterprise systems.

NOTICE:

Portion(s) of Axeda® products include software developed by the Spring Framework Project (http://www.springframework.org). This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
========================================================================
== NOTICE file corresponding to section 4 d of the Apache License,  ==
== Version 2.0, for the Spring Framework distribution.          ==
========================================================================
```
This product includes software developed by the Apache Software Foundation (http://www.apache.org).

The end-user documentation included with a redistribution, if any, must include the following acknowledgement:

   "This product includes software developed by the Spring Framework Project (http://www.springframework.org)."
  Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

   The names "Spring", "Spring Framework", and "Spring Web Flow" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact enquiries@springsource.com.

SOFTWARE: STRINGTEMPLATE

DESCRIPTION:

StringTemplate is a java template engine (with ports for C#, Python, Ruby, and Scala) for generating source code, web pages, emails, or any other formatted text output.

NOTICE:

[The "BSD licence"]

Copyright (c) 2003-2008 Terence Parr All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

 3. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE: STRUTS

DESCRIPTION:

Apache Struts is a free, open-source framework for creating Java web applications.

NOTICE:

This product includes software developed by the Apache Software Foundation (*http://www.apache.org/*).

The Apache Software License, Version 1.1

Copyright (c) 1999-2001 The Apache Software Foundation. All rights reserved.

 Redistribution and use in source and binary forms, with or without   modification, are permitted provided that the following conditions are met:

 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgement:

   "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

   Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

 4. The names "The Jakarta Project", "Struts", and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

 5. Products derived from this software may not be called "Apache" nor may "Apache" appear in their names without prior written permission of the Apache Group.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

===

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.

SOFTWARE: SUN JRE

DESCRIPTION:

Java Runtime Engine

NOTICE:

This software is licensed under the Oracle Binary Code License. See *Appendix J - Oracle Binary Code License for Java and JavaFX Technologies.*

SOFTWARE: SwarmCache

DESCRIPTION:

SwarmCache is a simple but effective distributed cache. It uses IP multicast to efficiently communicate with any number of hosts on a LAN. It is specifically designed for use by clustered, database-driven web applications.

NOTICE:

This software is licensed under the GNU Lesser General Public License v2.1. See *Appendix B - LGPL v2.1*.

SOFTWARE TOMCAT

DESCRIPTION:

Apache Tomcat is an implementation of the Java Servlet and JavaServer Pages technologies. It provides a "pure Java" HTTP web server environment for Java code to run. The Java Servlet and JavaServer Pages specifications are developed under the Java Community Process.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Apache Tomcat

Copyright 1999-2011 The Apache Software Foundation

This product includes software developed byThe Apache Software Foundation (*http://www.apache.org/*).

The Windows Installer is built with the Nullsoft Scriptable Install Sysem (NSIS), which is open source software. The original software and related information is available at *http://nsis.sourceforge.net*.

Java compilation software for JSP pages is provided by Eclipse, which is open source software. The original software and related information is available at *http://www.eclipse.org*.

SOFTWARE: Trunc8

DESCRIPTION:

Used for globalization of text like dates and currency. Used to provide text localization of static UI text strings. Shows a loading icon in UI. Used for modifying DOM elements and is a transitive dependency for kendo ui. Text Truncation framework.

NOTICE:

Copyright (c) 2012 Rick Viscomi (rviscomi@gmail.com)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE UCD-SNMP

DESCRIPTION:

UCD-SNMP is a suite of applications and libraries used to implement SNMP v1, SNMP v2c and SNMP v3.

NOTICE:

Various copyrights apply to this package, listed in 3 separate parts below. Please make sure that you all the parts. Up until 2001, the project was based at UC Davis, and the first part covers all code written during this time. From 2001 onwards, the project has been based at SourceForge, and Networks Associates Technology, Inc hold the copyright on behalf of the wider Net-SNMP community, covering all derivative work done since then. An additional copyright section has been added as Part 3 below also under a BSD license for the work contributed by Cambridge Broadband Ltd. to the project since 2001.
 Code has been contributed to this project by many people over the years it has been in development, and a full list of contributors can be found in the README file under the THANKS section.
---- Part 1: CMU/UCD copyright notice: (BSD like) -----
     Copyright 1989, 1991, 1992 by Carnegie Mellon University

Derivative Work - 1996, 1998-2000

Copyright 1996, 1998-2000 The Regents of the University of California. All Rights Reserved

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission.

CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA

OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

---- Part 2: Networks Associates Technology, Inc copyright notice (BSD) -----

Copyright (c) 2001, Networks Associates Technology, Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

  * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

  * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

  * Neither the name of the NAI Labs nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

---- Part 3: Cambridge Broadband Ltd. copyright notice (BSD) -----

Portions of this code are copyright (c) 2001, Cambridge Broadband Ltd.. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* The name of Cambridge Broadband Ltd. may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE ULTRAVNC

DESCRIPTION:

UltraVNC enables a computer to display the screen of another computer (via internet or network). UltraVNC users can use their mouse and keyboard to control the other PC remotely.

NOTICE:

Axeda has modified the UltraVNC software and makes such modified software available as Axeda® Desktop Server and Axeda® Desktop Viewer. This software is supplied with the Axeda® Access Screen Sharing program only. The Axeda® Desktop Server and Axeda® Desktop Viewer software are separate and independent programs and are not linked to any other proprietary Axeda software in any way. The modified VNC software is licensed under the GNU General Public License and the following notices are printed below as required under the license.

UltraVNC Win32 Server 1.1.8

Copyright © 2002-2012 Ultr@VNC Team

This program is licensed under the GNU General Public License Version 2, June 1991.

Portions of the code are copyrighted as follows:

> Copyright © 2002-2012 UltraVNC Team
>
> Copyright © 2001-2002 Sam - eSVNC
>
> Copyright © 1999-2002 Rudi D. V. - VdaccVNC
>
> Copyright © 2001 Harakan Software - PalmVNC
>
> Copyright © 1999-2002 Const. Kaplinsky - TightVNC
>
> Copyright © 2002 RealVNC Ltd. - RealVNC
>
> Copyright © 2002 VNC QuickDesk
>
> Copyright © 1999-2002 Tridia Corporation - TridiaVNC
>
> Copyright © 1994-2001 AT&T Laboratories Cambridge/Olivetti Research Ltd. - VNC
>
> Copyright © 1990-2002 Info-ZIP
>
> Copyright © 1996-2002 Markus Franz Xaver Johannes Oberhumer - Mini LZO library

****

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public Licensee along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.

If the source code for the program is not available from the place from which you received this file, check http://www.uvnc.com/

****

The authors shall not in any way be liable for any damage or legal consequences as a result of using this software. We make absolutely no warranties about the reliability of this software. Use it at your own risks !

****

You are offered the right, valid for at least three years, to receive from Axeda, for a charge no more than the cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code for UltraVNC, to be distributed under the terms of Sections 1 and 2 of the GNU General Public License on a medium customarily used for software interchange.

See *Appendix C - GNU General Public License v2*.

SOFTWARE VELOCITY

DESCRIPTION:

Velocity is a Java-based template engine that provides a template language to reference objects defined in Java code. Its separates the presentation tier and business tiers in a Web application.

NOTICE:

Apache Velocity

Copyright (C) 2000-2007 The Apache Software Foundation

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE VNC

DESCRIPTION:

VNC is remote control software which allows users to view and fully interact with one computer desktop (the "VNC server") using a simple program (the "VNC viewer") on another computer's desktop anywhere on the Internet.

NOTICE:

Axeda has modified the VNC software and makes such modified software available as Axeda Remote and Axeda Viewer. This software is supplied with the Axeda® Access Screen Sharing program only. The Axeda Remote and Axeda Viewer software are separate and independent programs and are not linked to any other proprietary Axeda software in any way. The modified VNC software is licensed under the GNU General Public License and the following notices are printed below as required under the license.

This VNC program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This VNC program is WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 675 Mass Ave, Cambridge, MA 02139, USA.

You are offered the right, valid for at least three years, to receive from Axeda, for a charge no more than the cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code for VNC, to be distributed under the terms of Sections 1 and 2 of the GNU General Public License on a medium customarily used for software interchange. See *Appendix C - GNU General Public License v2*.

SOFTWARE vt-middleware

DESCRIPTION:

Collection of open source software projects developed by Middleware Services at Virginia Tech.

VT Password provides a simple utility for checking that a password complies with a custom set of rules. Direct dependency.

VT Crypt provides a high-level interface to common cryptographic operations including message digests, symmetric encryption, public-key encryption, and message signing. It handles large files conveniently with performance in mind and provides a number of encoding operations designed for compatibility with OpenSSL. Direct dependency.

VT Dictionary provides a simple utility for searching and sorting word lists. Direct dependency.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

Software for these builds: *https://code.google.com/p/vt-middleware/wiki/vtpassword*, *https://code.google.com/p/vt-middleware/wiki/vtcrypt*, *https://code.google.com/p/vt-middleware/wiki/vtdictionary*

SOFTWARE Woodstox

DESCRIPTION:

Woodstox is a high-performance validating namespace-aware StAX-compliant (JSR-173) Open Source XML-processor written in Java.

NOTICE:

This product currently only contains code developed by authors of specific components, as identified by the source code files.

Since product implements StAX API, it has dependencies to StAX API classes.

For additional credits (generally to people who reported problems) see CREDITS file.

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE XALAN

DESCRIPTION:

Xalan-Java is an XSLT processor for transforming XML documents into HTML, text, or other XML document types. It implements XSL Transformations (XSLT) Version 1.0 and XML Path Language (XPath) Version 1.0 and can be used from the command line, in an applet or a servlet, or as a module in other program.

NOTICE:

This product includes software developed by the Apache Software Foundation (*http://www.apache.org/)*." Some Xalan software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*. Other Xalan components are licensed under the Apache Software License, Version 1.1

 Copyright (c) 1999 The Apache Software Foundation. All rights reserved.

 Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

 3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

   "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

   Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

 4. The names "Xalan" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

 5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

 THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER

IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation and was originally based on software copyright (c) 1999, Lotus Development Corporation., http://www.lotus.com. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.

==

== NOTICE file corresponding to section 4(d) of the Apache License, ==

== Version 2.0, in this case for the Apache Xalan distribution. ==

===

This product includes software developed by The Apache Software Foundation (http://www.apache.org/).

Portions of this software was originally based on the following:

   - software copyright (c) 1999-2002, Lotus Development Corporation., *http://www.lotus.com*.

   - software copyright (c) 2001-2002, Sun Microsystems., *http://www.sun.com*.

   - software copyright (c) 2003, IBM Corporation., *http://www.ibm.com*.

   - voluntary contributions made by Ovidiu Predescu <ovidiu@cup.hp.com> on behalf of the Apache Software Foundation that was originally developed at Hewlett Packard Company.

The binary distribution package (ie. jars, samples and documentation) of this product includes software developed by the following:

   - The Apache Software Foundation

   - Scott Hudson, Frank Flannery, C. Scott Ananian

The source distribution package (ie. all source and tools required to build Xalan Java) of this product includes software developed by the following:

   - The Apache Software Foundation

   - Elliot Joel Berk and C. Scott Ananian

SOFTWARE XERCES

DESCRIPTION:

Xerces is a family of software packages for parsing and manipulating XML; formerly it was part of the Apache XML project, and not it is a project in its own right. It provides both XML parsing and generation. The library implements a number of standard APIs for XML parsing, including DOM, SAX and SAX2.The implementation is available in Java, C++ and Perl programming languages.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

===

== NOTICE file corresponding to section 4(d) of the Apache License, ==

== Version 2.0, in this case for the Apache Xerces distribution. ==

===

Apache Xerces Java

Copyright 1999-2006 The Apache Software Foundation

This product includes software developed byThe Apache Software Foundation (http://www.apache.org/).

Portions of this software were originally based on the following:

   - software copyright (c) 1999, IBM Corporation., http://www.ibm.com.

- software copyright (c) 1999, Sun Microsystems., http://www.sun.com.

- voluntary contributions made by Paul Eng on behalf of the Apache Software Foundation that were originally developed at iClick, Inc., software copyright (c) 1999.

SOFTWARE XML COMMONS

DESCRIPTION:

xml-commons is focused on common code and guidelines for xml projects. Provides for common packaging for the various externally-defined standards code relating to XML, including DOM, SAX, and JAXP interfaces.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

```
=========================================================================
==  NOTICE file corresponding to section 4(d) of the Apache License,   ==
==  Version 2.0, in this case for the Apache xml-commons xml-apis      ==
==  distribution.                                                      ==
=========================================================================
```

Apache XML Commons XML APIs

Copyright 2006 The Apache Software Foundation.

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

Portions of this software were originally based on the following:

- software copyright (c) 1999, IBM Corporation., http://www.ibm.com.

- software copyright (c) 1999, Sun Microsystems., http://www.sun.com.

- software copyright (c) 2000 World Wide Web Consortium, *http://www.w3.org*

W3C® SOFTWARE NOTICE AND LICENSE

http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231

This work (and included software, documentation such as READMEs, or other related items) is being provided by the copyright holders under the following license. By obtaining, using and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions.

Permission to copy, modify, and distribute this software and its documentation, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on ALL copies of the software and documentation or portions thereof, including modifications:

The full text of this NOTICE in a location viewable to users of the redistributed or derivative work.

Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, the W3C Software Short Notice should be included (hypertext is preferred, text is permitted) within the body of any redistributed or derivative code.

Notice of any changes or modifications to the files, including the date changes were made. (We recommend you provide URIs to the location from which the code is derived.)

THIS SOFTWARE AND DOCUMENTATION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENTATION WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS.

COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENTATION.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the software without specific, written prior permission. Title to copyright in this software and any associated documentation will at all times remain with copyright holders.

_____

This formulation of W3C's notice and license became active on December 31 2002. This version removes the copyright ownership notice such that this license can be used with materials other than those owned by the W3C, reflects that ERCIM is now a host of the W3C, includes references to this specific dated version of the license, and removes the ambiguous grant of "use". Otherwise, this version is the same as the previous version and is written so as to preserve the Free Software Foundation's assessment of GPL compatibility and OSI's certification under the Open Source Definition. Please see our Copyright FAQ for common questions about using materials from our site, including specific terms and conditions for packages like libwww, Amaya, and Jigsaw. Other questions about this notice can be directed to site-policy@w3.org.

Joseph Reagle <site-policy@w3.org>

SOFTWARE XML Pull Parser

DESCRIPTION:

Xml Pull Parser (in short XPP) is a streaming pull XML parser and should be used when there is a need to process quickly and efficiently all input elements (for example in SOAP processors).

NOTICE:

This product includes software developed by the Indiana University Extreme! Lab (http://www.extreme.indiana.edu/).

Indiana University Extreme! Lab Software License

Version 1.1.1

Copyright (c) 2002 Extreme! Lab, Indiana University. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

  "This product includes software developed by the Indiana University Extreme! Lab (http://www.extreme.indiana.edu/)."

  Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

4. The names "Indiana Univeristy" and "Indiana Univeristy Extreme! Lab" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact http://www.extreme.indiana.edu/.

5. Products derived from this software may not use "Indiana Univeristy" name nor may "Indiana Univeristy" appear in their name, without prior written permission of the Indiana University.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHORS, COPYRIGHT HOLDERS OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE XStream

DESCRIPTION:

XStream is a simple library to serialize objects to XML and back again.

NOTICE:

XStream is open source software, made available under a BSD license.

Copyright (c) 2003-2006, Joe Walnes

Copyright (c) 2006-2009, 2011 XStream Committers

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of XStream nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE XML-Tooling-J

DESCRIPTION:

XMLTooling-J is a low-level library that may be used to construct libraries that allow developers to work with XML in a Java beans manner.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE QDox

DESCRIPTION:

A small footprint parser for extracting class/interface/method definitions from source files complete with JavaDoc @tags.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE Santuario

DESCRIPTION:

The Apache Santuario project is aimed at providing implementation of the primary security standards for XML.

XML-Signature Syntax and Processing

XML Encryption Syntax and Processing.

NOTICE:

This product contains software developed by The Apache Software Foundation (http://www.apache.org/).

It was originally based on software copyright (c) 2001, Institute for Data Communications Systems, <http://www.nue.et-inf.uni-siegen.de/>.

The development of this software was partly funded by the European Commission in the <WebSig> project in the ISIS Programme.

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE WSS4J

DESCRIPTION:

The Apache WSS4 project provides a Java implementation of the primary security standards for Web Services, namely the OASIS Web Services Security (WS-Security) specifications from the OASIS Web Services Security TC

NOTICE:

Apache WebServices - WSS4J

Copyright 2004-2011 The Apache Software Foundation

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

This product includes software Copyright University of Southampton IT Innovation Centre, 2006 (http://www.it-innovation.soton.ac.uk).

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE WS-Commons

DESCRIPTION:

Web Services Commons Projects. Some projects include: Apache XmlSchema and Apache Neethi

NOTICE:

Apache WebServices - XmlSchema

Copyright 2004-2011 The Apache Software Foundation

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

Portions Copyright 2006 International Business Machines Corp.

Portions Copyright (C) World Wide Web Consortium 2006, 2007 and licensed under thethree-part BSD license.

Apache Neethi

Copyright 2004-2011 The Apache Software Foundation

This product includes software developed at The Apache Software Foundation (http://www.apache.org/).

This product is tested with testcases developed at W3C under the license: *http://www.w3.org/Consortium/Legal/2002/copyright-documents-20021231*

The source distribution of this product includes those testcases.

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE EZMorph

DESCRIPTION:

EZMorph is simple java library for transforming an Object to another Object.

NOTICE:

This software is licensed under the Apache License v2.0. See *Appendix A - Apache License v2.0*.

SOFTWARE Stax

DESCRIPTION:

contained in source distribution: http://dist.codehaus.org/stax/jars/stax-src-1.2.0.zip (see ASF2.0.txt)

NOTICE:

BSD License

Copyright (c) 2004-2010, Woodstox Project (http://woodstox.codehaus.org/)

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the Woodstox XML Processor nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE Stax2

DESCRIPTION:

StAX2 is an API that is intended to extend basic StAX specifications. It allows for efficient parsing of XML documents.

NOTICE:

BSD License

Copyright (c) 2004-2010, Woodstox Project (http://woodstox.codehaus.org/)

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the Woodstox XML Processor nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SOFTWARE Scribe-Java

DESCRIPTION:

OAuth library for Java.

NOTICE:

The MIT License

Copyright (c) 2010 Pablo Fernandez

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

SOFTWARE XSLTC

DESCRIPTION:

NOTICE:

This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

 The Apache Software License, Version 1.1

 Copyright (c) 2000 The Apache Software Foundation. All rights reserved.

 Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

    "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)."

    Alternately, this acknowledgment may appear in the software itself,   if and wherever such third-party acknowledgments normally appear.

4. The names "Apache" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.

5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==

SOFTWARE ZLIB

DESCRIPTION:

zlib is a general purpose data compression library.

NOTICE:

ZLib 1.2.3

(C) 1995-2004 Jean-loup Gailly and Mark Adler

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.

2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.

3. This notice may not be removed or altered from any source distribution.

 Jean-loup Gailly   Mark Adler

 jloup@gzip.org   madler@alumni.caltech.edu

 If you use the zlib library in a product, we would appreciate *not* receiving lengthy legal documents to sign. The sources are provided for free but without warranty of any kind. The library has been entirely written by Jean-loup Gailly and Mark Adler; it does not include third-party code.

If you redistribute modified sources, we would appreciate that you include in the file ChangeLog history information documenting your changes. Please read the FAQ for more information on the distribution of modified source versions.

ZLib 1.1.4

Copyright notice: (C) 1995-2002 Jean-loup Gailly and Mark Adler

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

   1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.

   2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.

   3. This notice may not be removed or altered from any source distribution.

Jean-loup Gailly   Mark Adler

jloup@gzip.org   madler@alumni.caltech.edu

If you use the zlib library in a product, we would appreciate *not* receiving lengthy legal documents to sign. The sources are provided for free but without warranty of any kind. The library has been entirely written by Jean-loup Gailly and Mark Adler; it does not include third-party code.

If you redistribute modified sources, we would appreciate that you include in the file ChangeLog history information documenting your changes.

Appendix A – Apache License v2.0

Portion(s) of Axeda software include software developed by the Apache Software Foundation (http://www.apache.org/) and/or licensed under the Apache License. You may not use the software referenced above except in compliance with the Apache License, Version 2.0.

You may obtain a copy of the Apache License at *http://www.apache.org/licenses/LICENSE-2.0*

The Apache License is also reprinted below. Unless required by applicable law or agreed to in writing, software distributed under the Apache License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the Apache License for the specific language governing permissions and limitations under the License.

                    Apache License

                Version 2.0, January 2004

            http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or,within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at: *http://www.apache.org/licenses/LICENSE-2.0*

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Appendix B – GNU Lesser General Public License, v2.1

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices   stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square   root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

  Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

  This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

  If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

  However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

  Section 6 states terms for distribution of such executables.

  When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

  If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

  Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

  You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

  a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

  b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

  c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

  d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

    a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

    b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

  15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

  16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

    How to Apply These Terms to Your New Libraries

  If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

  To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

  <one line to give the library's name and a brief idea of what it does.>

  Copyright (C) <year> <name of author>

  This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version. This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

  You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

Appendix C – GNU General Public License v2

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.,

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

   a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

   b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

   c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

 Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

   a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

   b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

   c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not

include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THEIMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

 12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

 If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

   <one line to give the program's name and a brief idea of what it does.>

   Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

 This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

   Gnomovision version 69, Copyright (C) year name of author

   Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.

   This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items-- whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

   Yoyodyne, Inc., hereby disclaims all copyright interest in the program

  `Gnomovision' (which makes passes at compilers) written by James Hacker.

   <signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

Appendix D – Mozilla Public License v1.1

Mozilla Public License Version 1.1

1. Definitions.

> 1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.

> 1.1. "Contributor" means each entity that creates or contributes to the creation of Modifications.

> 1.2. "Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made by that particular Contributor.

> 1.3. "Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof.

> 1.4. "Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

> 1.5. "Executable" means Covered Code in any form other than Source Code.

> 1.6. "Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.

> 1.7. "Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.

> 1.8. "License" means this document.

> 1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

> 1.9. "Modifications" means any addition to or deletion from the substance or structure of either the Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:

>> a. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.

>> b. Any new file that contains any part of the Original Code or previous Modifications.

> 1.10. "Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.

> 1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

> 1.11. "Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

> 1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. Source Code License.

2.1. The Initial Developer Grant.

The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims: under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and under Patents Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof). the licenses granted in this Section 2.1 (a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.

Notwithstanding Section 2.1 (b) above, no patent license is granted: 1) for code that You delete from the Original Code; 2) separate from the Original Code; or 3) for infringements caused by: i) the modification of the Original Code or ii) the combination of the Original Code with other software or devices.

2.2. Contributor Grant.

Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination). the licenses granted in Sections 2.2 (a) and 2.2 (b) are effective on the date Contributor first makes Commercial Use of the Covered Code.

Notwithstanding Section 2.2 (b) above, no patent license is granted: 1) for any code that Contributor has deleted from the Contributor Version; 2) separate from the Contributor Version; 3) for infringements caused by: i) third party modifications of Contributor Version or ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or 4) under Patent Claims infringed by Covered Code in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Application of License.

The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

3.2. Availability of Source Code.

Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

3.3. Description of Modifications.

You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

3.4. Intellectual Property Matters

(a) Third Party Claims

If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

(b) Contributor APIs

If Contributor's Modifications include an application programming interface and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the legal file.

(c) Representations.

Contributor represents that, except as disclosed pursuant to Section 3.4 (a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

3.5. Required Notices.

You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.6. Distribution of Executable Versions.

You may distribute Covered Code in Executable form only if the requirements of Sections 3.1, 3.2, 3.3, 3.4 and 3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You

must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.7. Larger Works.

You may create a Larger Work by combining Covered Code with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the legal file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

6. Versions of the License.

6.1. New Versions

Netscape Communications Corporation ("Netscape") may publish revised and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

6.2. Effect of New Versions

Once Covered Code has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Netscape. No one other than Netscape has the right to modify the terms applicable to Covered Code created under this License.

6.3. Derivative Works

If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public License and Netscape Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

7. Disclaimer of warranty

Covered code is provided under this license on an "as is" basis, without warranty of any kind, either expressed or implied, including, without limitation, warranties that the covered code is free of defects, merchantable, fit for a particular purpose or non-infringing. The entire risk as to the quality and performance of the covered code is with you. Should any covered code prove defective in any respect, you (not the initial developer or any other contributor) assume the cost of any necessary servicing, repair or correction. This disclaimer of warranty constitutes an essential part of this license. No use of any covered code is authorized hereunder except under this disclaimer.

8. Termination

8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

8.2. If You initiate litigation by asserting a patent infringement claim (excluding declatory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:

such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: (i) agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.

8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

9. Limitation of liability

Under no circumstances and under no legal theory, whether tort (including negligence), contract, or otherwise, shall you, the initial developer, any other contributor, or any distributor of covered code, or any supplier of any of such parties, be liable to any person for any indirect, special, incidental, or consequential damages of any character including, without limitation, damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses, even if such party shall have been informed of the possibility of such damages. This limitation of liability shall not apply to liability for death or personal injury resulting from such party's negligence to the extent applicable law prohibits such limitation. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion and limitation may not apply to you.

10. U.S. government end users

The Covered Code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

11. Miscellaneous

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law

provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

12. Responsibility for claims

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

13. Multiple-licensed code

Initial Developer may designate portions of the Covered Code as "Multiple-Licensed". "Multiple-Licensed" means that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the MPL or the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

Exhibit A - Mozilla Public License.

"The contents of this file are subject to the Mozilla Public License

Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License.

The Original Code is _____.

The Initial Developer of the Original Code is _____.
Portions created by _____ are Copyright (C) _____
_____. All Rights Reserved.

Contributor(s): _____.

Alternatively, the contents of this file may be used under the terms

of the _____ license (the "[___] License"), in which case the

provisions of [_____] License are applicable instead of those

above. If you wish to allow use of your version of this file only

under the terms of the [____] License and not to allow others to use

your version of this file under the MPL, indicate your decision by

deleting the provisions above and replace them with the notice and

other provisions required by the [___] License. If you do not delete

the provisions above, a recipient may use your version of this file

under either the MPL or the [___] License."

NOTE: The text of this Exhibit A may differ slightly from the text of the notices in the Source Code files of the Original Code. You should use the text of this Exhibit A rather than the text found in the Original Code Source Code for Your Modifications.

Appendix E – Eclipse Public License v1.0

Eclipse Public License - v 1.0

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS ECLIPSE PUBLIC LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

1. DEFINITIONS

"Contribution" means:

a) in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and

b) in the case of each subsequent Contributor:

i) changes to the Program, and

ii) additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of software distributed in conjunction with the Program under their own license agreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents" mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

2. GRANT OF RIGHTS

a) Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright license to reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contribution of such Contributor, if any, and such derivative works, in source code and object code form.

b) Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent license under Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent license shall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent license shall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.

c) Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that license before distributing the Program.

d) Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright license set forth in this Agreement.

3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own license agreement, provided that:

a) it complies with the terms and conditions of this Agreement; and

b) its license agreement:

i) effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;

ii) effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;

iii) states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; and

iv) states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.

When the Program is made available in source code form:

a) it must be made available under this Agreement; and

b) a copy of this Agreement must be included with each copy of the Program.

Contributors may not remove or alter any copyright notices contained within the Program.

Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this license is intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement , including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL

DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

7. GENERAL

If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. The Eclipse Foundation is the initial Agreement Steward. The Eclipse Foundation may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2(a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

Appendix F – Common Development and Distribution License v1.0

COMMON DEVELOPMENT AND DISTRIBUTION LICENSE Version 1.0

1. Definitions.

   1.1. "Contributor" means each individual or entity that creates or contributes to the creation of Modifications.

   1.2. "Contributor Version" means the combination of the Original Software, prior Modifications used by a Contributor (if any), and the Modifications made by that particular Contributor.

   1.3. "Covered Software" means (a) the Original Software, or (b) Modifications, or (c) the combination of files containing Original Software with files containing Modifications, in each case including portions thereof.

   1.4. "Executable" means the Covered Software in any form other than Source Code.

   1.5. "Initial Developer" means the individual or entity that first makes Original Software available under this License.

   1.6. "Larger Work" means a work which combines Covered Software or portions thereof with code not governed by the terms of this License.

   1.7. "License" means this document.

1.8. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means the Source Code and Executable form of any of the following:

A. Any file that results from an addition to, deletion from or modification of the contents of a file containing Original Software or previous Modifications;

B. Any new file that contains any part of the Original Software or previous Modifications; or

C. Any new file that is contributed or otherwise made available under the terms of this License.

1.10. "Original Software" means the Source Code and Executable form of computer software code that is originally released under this License.

1.11. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.12. "Source Code" means (a) the common form of computer software code in which modifications are made and (b) associated documentation included in or with such code.

1.13. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. License Grants.

2.1. The Initial Developer Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, the Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer, to use, reproduce, modify, display, perform, sublicense and distribute the Original Software (or portions thereof), with or without Modifications, and/or as part of a Larger Work; and

 (b) under Patent Claims infringed by the making, using or selling of Original Software, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Software (or portions thereof).

(c) The licenses granted in Sections 2.1(a) an/d (b) are effective on the date Initial Developer first distributes or otherwise makes the Original Software available to a third party under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: (1) for code that You delete from the Original Software, or (2) for infringements caused by: (i) the modification of the Original Software, or (ii) the combination of the Original Software with other software or devices.

2.2. Contributor Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof), either on an unmodified basis, with other Modifications, as Covered Software and/or as part of a Larger Work; and

 (b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: (1) Modifications made by that Contributor (or portions thereof); and (2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) The licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first distributes or otherwise makes the Modifications available to a third party.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: (1) for any code that Contributor has deleted from the Contributor Version; (2) for infringements caused by: (i) third party modifications of Contributor Version, or (ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or (3) under Patent Claims infringed by Covered Software in the absence of   Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Availability of Source Code.

Any Covered Software that You distribute or otherwise make available in Executable form must also be made available in Source Code form and that Source Code form must be distributed only under the terms of this License. You must include a copy of this License with every copy of the Source Code form of the Covered Software You distribute or otherwise make available. You must inform recipients of any such Covered Software in Executable form as to how they can obtain such Covered Software in Source Code form in a reasonable manner on or through a medium customarily used for software exchange.

3.2. Modifications.

The Modifications that You create or to which You contribute are governed by the terms of this License. You represent that You believe Your Modifications are Your original creation(s) and/or You have sufficient rights to grant the rights conveyed by this License.

3.3. Required Notices.

You must include a notice in each of Your Modifications that identifies You as the Contributor of the Modification. You may not remove or alter any copyright, patent or trademark notices contained within the Covered Software, or any notices of licensing or any descriptive text giving attribution to any Contributor or the Initial Developer.

3.4. Application of Additional Terms.

You may not offer or impose any terms on any Covered Software in Source Code form that alters or restricts the applicable version of this License or the recipients' rights hereunder. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Software. However, you may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.5. Distribution of Executable Versions.

You may distribute the Executable form of the Covered Software under the terms of this License or under the terms of a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable form does not attempt to limit or alter the recipient's rights in the Source Code form from the rights set forth in this License. If You distribute the Covered Software in Executable form under a different license, You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.6. Larger Works.

You may create a Larger Work by combining Covered Software with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Software.

4. Versions of the License.

4.1. New Versions.

Sun Microsystems, Inc. is the initial license steward and may publish revised and/or new versions of this License from time to time. Each version will be given a distinguishing version number. Except as provided in Section 4.3, no one other than the license steward has the right to modify this License.

4.2. Effect of New Versions.

You may always continue to use, distribute or otherwise make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. If the Initial Developer includes a notice in the Original

Software prohibiting it from being distributed or otherwise made available under any subsequent version of the License, You must distribute and make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. Otherwise, You may also choose to use, distribute or otherwise make the Covered Software available under the terms of any subsequent version of the License published by the license steward.

4.3. Modified Versions.

When You are an Initial Developer and You want to create a new license for Your Original Software, You may create and use a modified version of this License if You: (a) rename the license and remove any references to the name of the license steward (except to note that the license differs from this License); and (b) otherwise make it clear that the license contains terms which differ from this License.

5. DISCLAIMER OF WARRANTY.

COVERED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED SOFTWARE IS WITH YOU. SHOULD ANY COVERED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

6. TERMINATION.

6.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

6.2. If You assert a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You assert such claim is referred to as "Participant") alleging that the Participant Software (meaning the Contributor Version where the Participant is a Contributor or the Original Software where the Participant is the Initial Developer) directly or indirectly infringes any patent, then any and all rights granted directly or indirectly to You by such Participant, the Initial Developer (if the Initial Developer is not the Participant) and all Contributors under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively and automatically at the expiration of such 60 day notice period, unless if within such 60 day period You withdraw Your claim with respect to the Participant Software against such Participant either unilaterally or pursuant to a written agreement with Participant.

6.3. In the event of termination under Sections 6.1 or 6.2 above, all end user licenses that have been validly granted by You or any distributor hereunder prior to termination (excluding licenses granted to You by any distributor) shall survive termination.

7. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOST PROFITS, LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

8. U.S. GOVERNMENT END USERS.

The Covered Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" (as that term is defined at 48 C.F.R. 252.227-7014(a)(1)) and "commercial computer software documentation" as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Software with only those rights set forth herein. This

U.S. Government Rights clause is in lieu of, and supersedes, any other FAR, DFAR, or other clause or provision that addresses Government rights in computer software under this License.

9. MISCELLANEOUS.

   This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by the law of the jurisdiction specified in a notice contained within the Original Software (except to the extent applicable law, if any, provides otherwise), excluding such jurisdiction's conflict-of-law provisions. Any litigation relating to this License shall be subject to the jurisdiction of the courts located in the jurisdiction and venue specified in a notice contained within the Original Software, with the losing party responsible for costs, including, without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License. You agree that You alone are responsible for compliance with the United States export administration regulations (and the export control laws and regulation of any other countries) when You use, distribute or otherwise make available any Covered Software.

10. RESPONSIBILITY FOR CLAIMS.

   As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

 NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

 For Covered Software in this distribution, this License shall be governed by the laws of the State of California (excluding conflict-of-law provisions).

Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.

Appendix G – Oracle Technology Network Development and Distribution License

Oracle Technology Network Development and Distribution License Terms

Export Controls on the Programs

- You are not a citizen, national, or resident of, and are not under control of, the government of Cuba, Iran, Sudan, Libya, North Korea, Syria, nor any country to which the United States has prohibited export.

- You will not download or otherwise export or re-export the Programs, directly or indirectly, to the above mentioned countries nor to citizens, nationals or residents of those countries.

- You are not listed on the United States Department of Treasury lists of Specially Designated Nationals, Specially Designated Terrorists, and Specially Designated Narcotic Traffickers, nor are you listed on the United States Department of Commerce Table of Denial Orders.

- You will not download or otherwise export or re-export the Programs, directly or indirectly, to persons on the above mentioned lists.

- You will not use the Programs for, and will not allow the Programs to be used for, any purposes prohibited by United States law, including, without limitation, for the development, design, manufacture or production of nuclear, chemical or biological weapons of mass destruction.

EXPORT RESTRICTIONS

You agree that U.S. export control laws and other applicable export and import laws govern your use of the programs, including technical data; additional information can be found on Oracle®'s Global Trade Compliance web site (http://www.oracle.com/products/export).

You agree that neither the programs nor any direct product thereof will be exported, directly, or indirectly, in violation of these laws, or will be used for any purpose prohibited by these laws including, without limitation, nuclear, chemical, or biological weapons proliferation.

ORACLE TECHNOLOGY NETWORK

DEVELOPMENT AND DISTRIBUTION LICENSE AGREEMENT

"We," "us," and "our" refers to Oracle USA, Inc., for and on behalf of itself and its subsidiaries and affiliates under common control. "You" and "your" refers to the individual or entity that wishes to use the programs from Oracle. "Programs" refers to the software product you wish to download and use and program documentation. "License" refers to your right to use the programs under the terms of this agreement. This agreement is governed by the substantive and procedural laws of California. You and Oracle agree to submit to the exclusive jurisdiction of, and venue in, the courts of San Francisco, San Mateo, or Santa Clara counties in California in any dispute arising out of or relating to this agreement.

We are willing to license the programs to you only upon the condition that you accept all of the terms contained in this agreement. Read the terms carefully and select the "Accept" button at the bottom of the page to confirm your acceptance. If you are not willing to be bound by these terms, select the "Do Not Accept" button and the registration process will not continue.

License Rights

We grant you a nonexclusive, nontransferable limited license to use the programs:(a) for purposes of developing, testing, prototyping and running applications you have developed for your own internal data processing operations; (b) to distribute the programs with applications you have developed to your customers provided that each such licensee agrees to license terms consistent with the terms of this Agreement, you do not charge your end users any additional fees for the use of the programs, and your end users may only use the programs to run your applications for their own business operations; and (c) to use the programs to provide third party demonstrations and training. You are not permitted to use the programs for any purpose other than as permitted under this Agreement. If you want to use the programs for any purpose other than as expressly permitted under this agreement you must contact us, or an Oracle reseller, to obtain the appropriate license. We may audit your use and distribution of the programs. Program documentation is either shipped with the programs, or documentation may accessed online at http://otn.oracle.com/docs.

 Ownership and Restrictions

We retain all ownership and intellectual property rights in the programs. You may make a sufficient number of copies of the programs for the licensed use and one copy of the programs for backup purposes.

You may not:

- use the programs for any purpose other than as provided above;

- distribute the programs unless accompanied with your applications;

- charge your end users for use of the programs;

- remove or modify any program markings or any notice of our proprietary rights;

- use the programs to provide third party training on the content and/or functionality of the programs, except for training your licensed users;

- assign this agreement or give the programs, program access or an interest in the programs to any individual or entity except as provided under this agreement;

- cause or permit reverse engineering (unless required by law for interoperability), disassembly or decompilation of the programs;

- disclose results of any program benchmark tests without our prior consent; or,

- use any Oracle name, trademark or logo.

Program Distribution

We grant you a nonexclusive, nontransferable right to copy and distribute the programs to your end users provided that you do not charge your end users for use of the programs and provided your end users may only use the programs to run your applications for

their business operations. Prior to distributing the programs you shall require your end users to execute an agreement binding them to terms consistent with those contained in this section and the sections of this agreement entitled "License Rights," "Ownership and Restrictions," "Export," "Disclaimer of Warranties and Exclusive Remedies," "No Technical Support," "End of Agreement," "Relationship Between the Parties," and "Open Source." You must also include a provision stating that your end users shall have no right to distribute the programs, and a provision specifying us as a third party beneficiary of the agreement. You are responsible for obtaining these agreements with your end users.

You agree to: (a) defend and indemnify us against all claims and damages caused by your distribution of the programs in breach of this agreements and/or failure to include the required contractual provisions in your end user agreement as stated above; (b) keep executed end user agreements and records of end user information including name, address, date of distribution and identity of programs distributed; (c) allow us to inspect your end user agreements and records upon request; and, (d) enforce the terms of your end user agreements so as to effect a timely cure of any end user breach, and to notify us of any breach of the terms.

Export

You agree that U.S. export control laws and other applicable export and import laws govern your use of the programs, including technical data; additional information can be found on Oracle's Global Trade Compliance web site located at http://www.oracle.com/products/export/index.html?content.html. You agree that neither the programs nor any direct product thereof will be exported, directly, or indirectly, in violation of these laws, or will be used for any purpose prohibited by these laws including, without limitation, nuclear, chemical, or biological weapons proliferation.

Disclaimer of Warranty and Exclusive Remedies

THE PROGRAMS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. WE FURTHER DISCLAIM ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

IN NO EVENT SHALL WE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR DATA USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. OUR ENTIRE LIABILITY FOR DAMAGES HEREUNDER SHALL IN NO EVENT EXCEED ONE THOUSAND DOLLARS (U.S. $1,000).

No Technical Support

Our technical support organization will not provide technical support, phone support, or updates to you for the programs licensed under this agreement.

Restricted Rights

If you distribute a license to the United States government, the programs, including documentation, shall be considered commercial computer software and you will place a legend, in addition to applicable copyright notices, on the documentation, and on the media label, substantially similar to the following:

NOTICE OF RESTRICTED RIGHTS

"Programs delivered subject to the DOD FAR Supplement are 'commercial computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement. Otherwise, programs delivered subject to the Federal Acquisition Regulations are 'restricted computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the restrictions in FAR 52.227-19, Commercial Computer Software-Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065."

End of Agreement

You may terminate this agreement by destroying all copies of the programs. We have the right to terminate your right to use the programs if you fail to comply with any of the terms of this agreement, in which case you shall destroy all copies of the programs.

Relationship Between the Parties

The relationship between you and us is that of licensee/licensor. Neither party will represent that it has any authority to assume or create any obligation, express or implied, on behalf of the other party, nor to represent the other party as agent, employee, franchisee, or in any other capacity. Nothing in this agreement shall be construed to limit either party's right to independently

develop or distribute software that is functionally similar to the other party's products, so long as proprietary information of the other party is not included in such software.

Open Source

"Open Source" software - software available without charge for use, modification and distribution - is often licensed under terms that require the user to make the user's modifications to the Open Source software or any software that the user 'combines' with the Open Source software freely available in source code form. If you use Open Source software in conjunction with the programs, you must ensure that your use does not: (i) create, or purport to create, obligations of us with respect to the Oracle programs; or (ii) grant, or purport to grant, to any third party any rights to or immunities under our intellectual property or proprietary rights in the Oracle programs. For example, you may not develop a software program using an Oracle program and an Open Source program where such use results in a program file(s) that contains code from both the Oracle program and the Open Source program (including without limitation libraries) if the Open Source program is licensed under a license that requires any "modifications" be made freely available. You also may not combine the Oracle program with programs licensed under the GNU General Public License ("GPL") in any manner that could cause, or could be interpreted or asserted to cause, the Oracle program or any modifications thereto to become subject to the terms of the GPL.

Entire Agreement

You agree that this agreement is the complete agreement for the programs and licenses, and this agreement supersedes all prior or contemporaneous agreements or representations. If any term of this agreement is found to be invalid or unenforceable, the remaining provisions will remain effective.

Last updated: 03/09/05

Appendix H – Sun Binary Code License for Java Communications

Sun Microsystems, Inc.

Binary Code License Agreement

READ THE TERMS OF THIS AGREEMENT AND ANY PROVIDED SUPPLEMENTAL LICENSE TERMS (COLLECTIVELY "AGREEMENT") CAREFULLY BEFORE OPENING THE SOFTWARE MEDIA PACKAGE. BY OPENING THE SOFTWARE MEDIA PACKAGE, YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCESSING THE SOFTWARE ELECTRONICALLY, INDICATE YOUR ACCEPTANCE OF THESE TERMS BY SELECTING THE "ACCEPT" BUTTON AT THE END OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL THESE TERMS, PROMPTLY RETURN THE UNUSED SOFTWARE TO YOUR PLACE OF PURCHASE FOR A REFUND OR, IF THE SOFTWARE IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" BUTTON AT THE END OF THIS AGREEMENT.

1. LICENSE TO USE. Sun grants you a non-exclusive and non-transferable license for the internal use only of the accompanying software and documentation and any error corrections provided by Sun (collectively "Software"), by the number of users and the class of computer hardware for which the corresponding fee has been paid.

2. RESTRICTIONS. Software is confidential and copyrighted. Title to Software and all associated intellectual property rights is retained by Sun and/or its licensors. Except as specifically authorized in any Supplemental License Terms, you may not make copies of Software, other than a single copy of Software for archival purposes. Unless enforcement is prohibited by applicable law, you may not modify, decompile, or reverse engineer Software. Licensee acknowledges that Licensed Software is not designed or intended for use in the design, construction, operation or maintenance of any nuclear facility. Sun Microsystems, Inc. disclaims any express or implied warranty of fitness for such uses. No right, title or interest in or to any trademark, service mark, logo or trade name of Sun or its licensors is granted under this Agreement.

3. LIMITED WARRANTY. Sun warrants to you that for a period of ninety (90) days from the date of purchase, as evidenced by a copy of the receipt, the media on which Software is furnished (if any) will be free of defects in materials and workmanship under normal use. Except for the foregoing, Software is provided "AS IS". Your exclusive remedy and Sun's entire liability under this limited warranty will be at Sun's option to replace Software media or refund the fee paid for Software.

4. DISCLAIMER OF WARRANTY. UNLESS SPECIFIED IN THIS AGREEMENT, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT THESE DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

5. LIMITATION OF LIABILITY. TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event will Sun's liability to you, whether in contract, tort (including negligence), or otherwise, exceed the amount paid by you for Software under this Agreement. The foregoing limitations will apply even if the above stated warranty fails of its essential purpose.

6. Termination. This Agreement is effective until terminated. You may terminate this Agreement at any time by destroying all copies of Software. This Agreement will terminate immediately without notice from Sun if you fail to comply with any provision of this Agreement. Upon Termination, you must destroy all copies of Software.

7. Export Regulations. All Software and technical data delivered under this Agreement are subject to US export control laws and may be subject to export or import regulations in other countries. You agree to comply strictly with all such laws and regulations and acknowledge that you have the responsibility to obtain such licenses to export, re-export, or import as may be required after delivery to you.

8. U.S. Government Restricted Rights. If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation will be only as set forth in this Agreement; this is in accordance with 48 CFR 227.7201 through 227.7202-4 (for Department of Defense (DOD) acquisitions) and with 48 CFR 2.101 and 12.212 (for non-DOD acquisitions).

9. Governing Law. Any action related to this Agreement will be governed by California law and controlling U.S. federal law. No choice of law rules of any jurisdiction will apply.

10. Severability. If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

11. Integration. This Agreement is the entire agreement between you and Sun relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.

JAVA OPTIONAL PACKAGE

JAVAX.COMM 3.0

SUPPLEMENTAL LICENSE TERMS

These supplemental license terms ("Supplemental Terms") add to or modify the terms of the Binary Code License Agreement (collectively, the "Agreement"). Capitalized terms not defined in these Supplemental Terms shall have the same meanings ascribed to them in the Agreement. These Supplemental Terms shall supersede any inconsistent or conflicting terms in the Agreement, or in any license contained within the Software.

1. Software Internal Use and Development License Grant. Subject to the terms and conditions of this Agreement, including, but not limited to Section 3 (Java(TM) Technology Restrictions) of these Supplemental Terms, Sun grants you a non-exclusive, non-transferable, limited license to reproduce internally and use internally the binary form of the Software, complete and unmodified, for the sole purpose of designing, developing and testing your Java applets and applications ("Programs").

2. License to Distribute Software. In addition to the license granted in Section 1 (Software Internal Use and Development License Grant) of these Supplemental Terms, subject to the terms and conditions of this Agreement, including but not limited to, Section 3 (Java Technology Restrictions) of these Supplemental Terms, Sun grants you a non-exclusive, non-transferable, limited license to reproduce and distribute the Software in binary code form only, provided that you (i) distribute the Software complete and

unmodified and only bundled as part of your Programs, (ii) do not distribute additional software intended to replace any component(s) of the Software, (iii) do not remove or alter any proprietary legends or notices contained in the Software, (iv) only distribute the Software subject to a license agreement that protects Sun's interests consistent with the terms contained in this Agreement, and (v) agree to defend and indemnify Sun and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software.

 3. Java Technology Restrictions. You may not modify the Java Platform Interface ("JPI", identified as classes contained within the "java" package or any subpackages of the "java" package), by creating additional classes within the JPI or otherwise causing the addition to or modification of the classes in the JPI. In the event that you create an additional class and associated API(s) which (i) extends the functionality of the Java platform, and (ii) is exposed to third party software developers for the purpose of developing additional software which invokes such additional API, you must promptly publish broadly an accurate specification for such API for free use by all developers. You may not create, or authorize your licensees to create additional classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun" or similar convention as specified by Sun in any naming convention designation.

 4. Trademarks and Logos. You acknowledge and agree as between you and Sun that Sun owns the SUN, SOLARIS, JAVA, JINI, FORTE, and iPLANET trademarks and all SUN, SOLARIS, JAVA, JINI, FORTE, and iPLANET-related trademarks, service marks, logos and other brand designations ("Sun Marks"), and you agree to comply with the Sun Trademark and Logo Usage Requirements currently located at http://www.sun.com/policies/trademarks. Any use you make of the Sun Marks inures to Sun's benefit.

5. Source Code. Software may contain source code that is provided solely for reference purposes pursuant to the terms of this Agreement. Source code may not be redistributed unless expressly provided for in this Agreement.

 6. Termination for Infringement. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right.

 For inquiries please contact: Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, California 95054.

(LFI#143217/Form ID#011801)

Appendix I - Sun Binary Code License for Java3D

Sun Microsystems, Inc.

Binary Code License Agreement

JAVA 3D[TM] API, VERSION 1.3.1, FCS RELEASE

READ THE TERMS OF THIS AGREEMENT AND ANY PROVIDED SUPPLEMENTAL LICENSE TERMS (COLLECTIVELY "AGREEMENT") CAREFULLY BEFORE OPENING THE SOFTWARE MEDIA PACKAGE. BY OPENING THE SOFTWARE MEDIA PACKAGE, YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCESSING THE SOFTWARE ELECTRONICALLY, INDICATE YOUR ACCEPTANCE OF THESE TERMS BY SELECTING THE "ACCEPT" BUTTON AT THE END OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL THESE TERMS, PROMPTLY RETURN THE UNUSED SOFTWARE TO YOUR PLACE OF PURCHASE FOR A REFUND OR, IF THE SOFTWARE IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" BUTTON AT THE END OF THIS AGREEMENT.

1. LICENSE TO USE. Sun Microsystems, Inc. ("Sun") grants you a non-exclusive and non-transferable license for the internal use only of the accompanying software and documentation and any error corrections provided by Sun (collectively "Software"), by the number of users and the class of computer hardware for which the corresponding fee has been paid.

 2. RESTRICTIONS. Software is confidential and copyrighted. Title to Software and all associated intellectual property rights is retained by Sun and/or its licensors. Except as specifically authorized in any Supplemental License Terms, you may not make

copies of Software, other than a single copy of Software for archival purposes. Unless enforcement is prohibited by applicable law, you may not modify, decompile, or reverse engineer Software. You acknowledge that Software is not designed, licensed or intended for use in the design, construction, operation or maintenance of any nuclear facility. Sun disclaims any express or implied warranty of fitness for such uses. No right, title or interest in or to any trademark, service mark, logo or trade name of Sun or its licensors is granted under this Agreement.

3. LIMITED WARRANTY. Sun warrants to you that for a period of ninety (90) days from the date of purchase, as evidenced by a copy of the receipt, the media on which Software is furnished (if any) will be free of defects in materials and workmanship under normal use. Except for the foregoing, Software is provided "AS IS". Your exclusive remedy and Sun's entire liability under this limited warranty will be at Sun's option to replace Software media or refund the fee paid for Software.

4. DISCLAIMER OF WARRANTY. UNLESS SPECIFIED IN THIS AGREEMENT, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT THESE DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

5. LIMITATION OF LIABILITY. TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event will Sun's liability to you, whether in contract, tort (including negligence), or otherwise, exceed the amount paid by you for Software under this Agreement. The foregoing limitations will apply even if the above stated warranty fails of its essential purpose.

6. Termination. This Agreement is effective until terminated. You may terminate this Agreement at any time by destroying all copies of Software. This Agreement will terminate immediately without notice from Sun if you fail to comply with any provision of this Agreement. Upon Termination, you must destroy all copies of Software.

7. Export Regulations. All Software and technical data delivered under this Agreement are subject to US export control laws and may be subject to export or import regulations in other countries. You agree to comply strictly with all such laws and regulations and acknowledge that you have the responsibility to obtain such licenses to export, re-export, or import as may be required after delivery to you.

8. U.S. Government Restricted Rights. If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation will be only as set forth in this Agreement; this is in accordance with 48 CFR 227.7201 through 227.7202-4 (for Department of Defense (DOD) acquisitions) and with 48 CFR 2.101 and 12.212 (for non-DOD acquisitions).

9. Governing Law. Any action related to this Agreement will be governed by California law and controlling U.S. federal law. No choice of law rules of any jurisdiction will apply.

10. Severability. If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

11. Integration. This Agreement is the entire agreement between you and Sun relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.

DEVELOPMENT TOOLS

JAVA 3D[TM], VERSION 1.3.1, FCS RELEASE

SUPPLEMENTAL LICENSE TERMS

These supplemental license terms ("Supplemental Terms") add to or modify the terms of the Binary Code License Agreement (collectively, the "Agreement"). Capitalized terms not defined in these Supplemental Terms shall have the same meanings ascribed

to them in the Agreement. These Supplemental Terms shall supersede any inconsistent or conflicting terms in the Agreement, or in any license contained within the Software.

1. Software Internal Use and Development License Grant. Subject to the terms and conditions of this Agreement, including, but not limited to Section 3 (Java[TM]; Technology Restrictions) of these Supplemental Terms, Sun grants you a non-exclusive, non-transferable, limited license to reproduce internally and use internally the binary form of the Software complete and unmodified for the sole purpose of designing, developing and testing your Java applets and applications intended to run on the Java platform ("Programs").

2. License to Distribute Software. In addition to the license granted in Section 1 (Software Internal Use and Development License Grant) of these Supplemental Terms, subject to the terms and conditions of this Agreement, including but not limited to Section 3 (Java Technology Restrictions) of these Supplemental Terms, Sun grants you a non-exclusive, non-transferable, limited license to reproduce and distribute the Software in binary code form only, provided that you:

(i) distribute the Software complete and unmodified and only bundled as part of your Programs,

(ii) do not distribute additional software intended to replace any component(s) of the Software,

(iii) do not remove or alter any proprietary legends or notices contained in the Software,

(iv) only distribute the Software subject to a license agreement that protects Sun's interests consistent with the terms contained in this Agreement, and

(v) agree to defend and indemnify Sun and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software.

3. Java Technology Restrictions. You may not modify the Java Platform Interface ("JPI", identified as classes contained within the "java" package or any subpackages of the "java" package), by creating additional classes within the JPI or otherwise causing the addition to or modification of the classes in the JPI. In the event that you create an additional class and associated API(s) which

(i) extends the functionality of the Java platform, and

(ii) is exposed to third party software developers for the purpose of developing additional software which invokes such additional API, you must promptly publish broadly an accurate specification for such API for free use by all developers. You may not create, or authorize your licensees to create, additional classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun" or similar convention as specified by Sun in any naming convention designation.

4. Java Runtime Availability. Refer to the appropriate version of the Java Runtime Environment binary code license (currently located at http://www.java.sun.com/jdk/index.html) for the availability of runtime code which may be distributed with Java applets and applications.

5. Trademarks and Logos. You acknowledge and agree as between you and Sun that Sun owns the SUN, SOLARIS, JAVA, JAVA 3D, JINI, FORTE, STAROFFICE, STARPORTAL and iPLANET trademarks and all SUN, SOLARIS, JAVA, JAVA 3D, JINI, FORTE, STAROFFICE, STARPORTAL and iPLANET-related trademarks, service marks, logos and other brand designations ("Sun Marks"), and you agree to comply with the Sun Trademark and Logo Usage Requirements currently located at http://www.sun.com/policies/trademarks. Any use you make of the Sun Marks inures to Sun's benefit.

6. Source Code. Software may contain source code that is provided solely for reference purposes pursuant to the terms of this Agreement. Source code may not be redistributed unless expressly provided for in this Agreement.

7. Termination for Infringement. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right.

Note: Some portions of Software are provided with notices and/or licenses from other parties that govern the use of those portions, including the README file named README-LICENSE.

For inquiries please contact: Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, California 95054.

(Form ID#011801)

Appendix J - Oracle Binary Code License for Java SE and JavaFX Technologies

Oracle Binary Code License Agreement for Java SE and JavaFX Technologies

ORACLE AMERICA, INC. ("ORACLE"), FOR AND ON BEHALF OF ITSELF AND ITS SUBSIDIARIES AND AFFILIATES UNDER COMMON CONTROL, IS WILLING TO ICENSE THE SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS BINARY CODE LICENSE AGREEMENT AND SUPPLEMENTAL LICENSE TERMS (COLLECTIVELY "AGREEMENT"). PLEASE READ THE AGREEMENT CAREFULLY. BY SELECTING THE "ACCEPT LICENSE AGREEMENT" (OR THE EQUIVALENT) BUTTON AND/OR BY USING THE SOFTWARE YOU ACKNOWLEDGE THAT YOU HAVE READ THE TERMS AND AGREE TO THEM. IF YOU ARE AGREEING TO THESE TERMS ON BEHALF OF A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT THAT YOU HAVE THE LEGAL AUTHORITY TO BIND THE LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT HAVE SUCH AUTHORITY, OR IF YOU DO NOT WISH TO BE BOUND BY THE TERMS, THEN SELECT THE "DECLINE LICENSE AGREEMENT" (OR THE EQUIVALENT) BUTTON AND YOU MUST NOT USE THE SOFTWARE ON THIS SITE OR ANY OTHER MEDIA ON WHICH THE SOFTWARE IS CONTAINED.

1. DEFINITIONS. "Software" means the software identified above in binary form that you selected for download, install or use (in the version You selected for download, install or use) from Oracle or its authorized licensees, any other machine readable materials (including, but not limited to, libraries, source files, header files, and data files), any updates or error corrections provided by Oracle, and any user manuals, programming guides and other documentation provided to you by Oracle under this Agreement. "General Purpose Desktop Computers and Servers" means computers, including desktop and laptop computers, or servers, used for general computing functions under end user control (such as but not specifically limited to email, general purpose Internet browsing, and office suite productivity tools). The use of Software in systems and solutions that provide dedicated functionality (other than as mentioned above) or designed for use in embedded or function-specific software applications, for example but not limited to: Software embedded in or bundled with industrial control systems, wireless mobile telephones, wireless handheld devices, netbooks, kiosks, TV/STB, Blu-ray Disc devices, telematics and network control switching equipment, printers and storage management systems, and other related systems are excluded from this definition and not licensed under this Agreement. "Programs" means: (a) Java technology applets and applications intended to run on the Java Platform, Standard Edition platform on Java-enabled General Purpose Desktop Computers and Servers, and (b) JavaFX technology applications intended to run on the JavaFX Runtime on JavaFX-enabled General Purpose Desktop Computers and Servers.   "README File" means the README file for the Software set forth in the Software or otherwise available from Oracle at or through the following URL: http://www.oracle.com/technetwork/java/javase/documentation/index.html

2. LICENSE TO USE. Subject to the terms and conditions of this Agreement including, but not limited to, the Java Technology Restrictions of the Supplemental License Terms, Oracle grants you a non-exclusive, non-transferable, limited license without license fees to reproduce and use internally the Software complete and unmodified for the sole purpose of running Programs.

3. RESTRICTIONS. Software is copyrighted. Title to Software and all associated intellectual property rights is retained by Oracle and/or its licensors. Unless enforcement is prohibited by applicable law, you may not modify, decompile, or reverse engineer Software. You acknowledge that the Software is developed for general use in a variety of information management applications; it is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use the Software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle disclaims any express or implied warranty of fitness for such uses. No right, title or interest in or to any trademark, service mark, logo or trade name of Oracle or its licensors is granted under this Agreement. Additional restrictions for developers and/or publishers licenses are set forth in the Supplemental License Terms.

4. DISCLAIMER OF WARRANTY. THE SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. ORACLE FURTHER DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

5. LIMITATION OF LIABILITY. IN NO EVENT SHALL ORACLE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR DATA USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF ORACLE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. ORACLE'S ENTIRE LIABILITY FOR DAMAGES HEREUNDER SHALL IN NO EVENT EXCEED ONE THOUSAND DOLLARS (U.S. $1,000).

6. TERMINATION. This Agreement is effective until terminated. You may terminate this Agreement at any time by destroying all copies of Software. This Agreement will terminate immediately without notice from Oracle if you fail to comply with any provision of this Agreement. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right. Upon termination, you must destroy all copies of Software.

7. EXPORT REGULATIONS. You agree that U.S. export control laws and other applicable export and import laws govern your use of the Software, including technical data; additional information can be found on Oracle's Global Trade Compliance web site (http://www.oracle.com/products/export). You agree that neither the Software nor any direct product thereof will be exported, directly, or indirectly, in violation of these laws, or will be used for any purpose prohibited by these laws including, without limitation, nuclear, chemical, or biological weapons proliferation.

8. TRADEMARKS AND LOGOS. You acknowledge and agree as between you and Oracle that Oracle owns the ORACLE and JAVA trademarks and all ORACLE- and JAVA-related trademarks, service marks, logos and other brand designations ("Oracle Marks"), and you agree to comply with the Third Party Usage Guidelines for Oracle Trademarks currently located at http://www.oracle.com/us/legal/third-party-trademarks/index.html. Any use you make of the Oracle Marks inures to Oracle's benefit.

9. U.S. GOVERNMENT LICENSE RIGHTS. If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation shall be only those set forth in this Agreement.

10. GOVERNING LAW. This agreement is governed by the substantive and procedural laws of California. You and Oracle agree to submit to the exclusive jurisdiction of, and venue in, the courts of San Francisco, or Santa Clara counties in California in any dispute arising out of or relating to this agreement.

11. SEVERABILITY. If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

12. INTEGRATION. This Agreement is the entire agreement between you and Oracle relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.

SUPPLEMENTAL LICENSE TERMS

These Supplemental License Terms add to or modify the terms of the Binary Code License Agreement. Capitalized terms not defined in these Supplemental Terms shall have the same meanings ascribed to them in the Binary Code License Agreement. These Supplemental Terms shall supersede any inconsistent or conflicting terms in the Binary Code License Agreement, or in any license contained within the Software.

A. SOFTWARE INTERNAL USE FOR DEVELOPMENT LICENSE GRANT. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the README File incorporated herein by reference, including, but not limited to the Java Technology Restrictions of these Supplemental Terms, Oracle grants you a non-exclusive, non-transferable,

limited license without fees to reproduce internally and use internally the Software complete and unmodified for the purpose of designing, developing, and testing your Programs.

B. LICENSE TO DISTRIBUTE SOFTWARE. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the README File, including, but not limited to the Java Technology Restrictions of these Supplemental Terms, Oracle grants you a non-exclusive, non-transferable, limited license without fees to reproduce and distribute the Software, provided that (i) you distribute the Software complete and unmodified and only bundled as part of, and for the sole purpose of running, your Programs, (ii) the Programs add significant and primary functionality to the Software, (iii) you do not distribute additional software intended to replace any component(s) of the Software, (iv) you do not remove or alter any proprietary legends or notices contained in the Software, (v) you only distribute the Software subject to a license agreement that protects Oracle's interests consistent with the terms contained in this Agreement, and (vi) you agree to defend and indemnify Oracle and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software.   The license set forth in this Section B does not extend to the Software identified in Section D.

C. LICENSE TO DISTRIBUTE REDISTRIBUTABLES. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the README File, including but not limited to the Java Technology Restrictions of these Supplemental Terms, Oracle grants you a non-exclusive, non-transferable, limited license without fees to reproduce and distribute those files specifically identified as redistributable in the README File ("Redistributables") provided that: (i) you distribute the Redistributables complete and unmodified, and only bundled as part of Programs, (ii) the Programs add significant and primary functionality to the Redistributables, (iii) you do not distribute additional software intended to supersede any component(s) of the Redistributables (unless otherwise specified in the applicable README File), (iv) you do not remove or alter any proprietary legends or notices contained in or on the Redistributables, (v) you only distribute the Redistributables pursuant to a license agreement that protects Oracle's interests consistent with the terms contained in the Agreement, (vi) you agree to defend and indemnify Oracle and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software. The license set forth in this Section C does not extend to the Software identified in Section D.

D. JAVA TECHNOLOGY RESTRICTIONS. You may not create, modify, or change the behavior of, or authorize your licensees to create, modify, or change the behavior of, classes, interfaces, or subpackages that are in any way identified as "java", "javax", "javafx", "sun", "oracle" or similar convention as   specified by Oracle in any naming convention designation. You shall not redistribute the Software listed on Schedule 1.

E. SOURCE CODE. Software may contain source code that, unless expressly licensed for other purposes, is provided solely for reference purposes pursuant to the terms of this Agreement. Source code may not be redistributed unless expressly provided for in this Agreement.

F. THIRD PARTY CODE. Additional copyright notices and license terms applicable to portions of the Software are set forth in the THIRDPARTYLICENSEREADME file set forth in the Software or otherwise available from Oracle at or through the following URL: http://www.oracle.com/technetwork/java/javase/documentation/index.html. In addition to any terms and conditions of any third party opensource/freeware license identified in the THIRDPARTYLICENSEREADME file, the disclaimer of warranty and limitation of liability provisions in paragraphs 4 and 5 of the Binary Code License Agreement shall apply to all Software in this distribution.

G. TERMINATION FOR INFRINGEMENT. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right.

H. INSTALLATION AND AUTO-UPDATE. The Software's installation and auto-update processes transmit a limited amount of data to Oracle (or its service provider) about those specific processes to help Oracle understand and optimize them. Oracle does not associate the data with personally identifiable information. You can find more information about the data Oracle collects as a result of your Software download at http://www.oracle.com/technetwork/java/javase/documentation/index.html.

For inquiries please contact: Oracle America, Inc., 500 Oracle Parkway, Redwood Shores, California 94065, USA.

License for Archived Java SE Technologies; Last updated 13 March 2012

Schedule 1 to Supplemental Terms
Non-redistributable Java Technologies

JavaFX Runtime

JavaFX Development Kit

JavaFX Production Suite

Java Naming and Directory Interface(TM)

Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files

jvmstat

Appendix K – Sun Software License Agreement for JavaBeans Activation Framework 1.1

A. Sun Microsystems, Inc. ("Sun") ENTITLEMENT for SOFTWARE

Licensee/Company: Entity receiving Software.

Effective Date: Date of delivery of the Software to You.

Software: JavaBeans Activation Framework 1.1.

License Term: Perpetual (subject to termination under the SLA).

Licensed Unit: Software Copy.

Licensed unit Count: Unlimited.

Permitted Uses:

1. You may reproduce and use the Software for Individual, Commercial, or Research and Instructional Use for the purposes of designing, developing, testing, and running Your applets and application("Programs").

2. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the Software's documentation, You may reproduce and distribute portions of Software identified as a redistributable in the documentation ("Redistributable"), provided that:

(a) you distribute Redistributable complete and unmodified and only bundled as part of Your Programs,

(b) your Programs add significant and primary functionality to the Redistributable,

(c) you distribute Redistributable for the sole purpose of running your Programs,

(d) you do not distribute additional software intended to replace any component(s) of the Redistributable,

(e) you do not remove or alter any proprietary legends or notices contained in or on the Redistributable.

(f) you only distribute the Redistributable subject to a license agreement that protects Sun's interests consistent with the terms contained in this Agreement, and

(g) you agree to defend and indemnify Sun and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Redistributable.

3. Java Technology Restrictions. You may not create, modify, or change the behavior of, or authorize your licensees to create, modify, or change the behavior of, classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun" or similar convention as specified by Sun in any naming convention designation.

B. Sun Microsystems, Inc. ("Sun")

SOFTWARE LICENSE AGREEMENT

READ THE TERMS OF THIS AGREEMENT ("AGREEMENT") CAREFULLY BEFORE OPENING SOFTWARE MEDIA PACKAGE. BY OPENING SOFTWARE MEDIA PACKAGE, YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCESSING SOFTWARE ELECTRONICALLY, INDICATE YOUR ACCEPTANCE OF THESE TERMS BY SELECTING THE "ACCEPT" BUTTON AT THE END OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS, PROMPTLY RETURN THE UNUSED SOFTWARE TO YOUR PLACE OF PURCHASE FOR A REFUND OR, IF SOFTWARE IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" (OR "EXIT") BUTTON AT THE END OF THIS AGREEMENT. IF YOU HAVE SEPARATELY AGREED TO LICENSE TERMS ("MASTER TERMS") FOR YOUR LICENSE TO THIS SOFTWARE, THEN SECTIONS 1-5 OF THIS AGREEMENT ("SUPPLEMENTAL LICENSE TERMS") SHALL SUPPLEMENT AND SUPERSEDE THE MASTER TERMS IN RELATION TO THIS SOFTWARE.

1. Definitions.

 (a) "Entitlement" means the collective set of applicable documents authorized by Sun evidencing your obligation to pay associated fees (if any) for the license, associated Services, and the authorized scope of use of Software under this Agreement.

 (b) "Licensed Unit" means the unit of measure by which your use of Software and/or Service is licensed, as described in your Entitlement.

 (c) "Permitted Use" means the licensed Software use(s) authorized in this Agreement as specified in your Entitlement. The Permitted Use for any bundled Sun software not specified in your Entitlement will be evaluation use as provided in Section 3.

 (d) "Service" means the service(s) that Sun or its delegate will provide, if any, as selected in your Entitlement and as further described in the applicable service listings at www.sun.com/service/servicelist.

(e) "Software" means the Sun software described in your Entitlement. Also, certain software may be included for evaluation use under Section 3.

 (f) "You" and "Your" means the individual or legal entity specified in the Entitlement, or for evaluation purposes, the entity performing the evaluation.

2. License Grant and Entitlement.

Subject to the terms of your Entitlement, Sun grants you a nonexclusive, nontransferable limited license to use Software for its Permitted Use for the license term. Your Entitlement will specify (a) Software licensed, (b) the Permitted Use, (c) the license term, and (d) the Licensed Units.

Additionally, if your Entitlement includes Services, then it will also specify the (e) Service and (f) service term.

If your rights to Software or Services are limited in duration and the date such rights begin is other than the purchase date, your Entitlement will provide that beginning date(s).

The Entitlement may be delivered to you in various ways depending on the manner in which you obtain Software and Services, for example, the Entitlement may be provided in your receipt, invoice or your contract with Sun or authorized Sun reseller. It may also be in electronic format if you download Software.

3. Permitted Use.

As selected in your Entitlement, one or more of the following Permitted Uses will apply to your use of Software. Unless you have an Entitlement that expressly permits it, you may not use Software for any of the other Permitted Uses. If you don't have an Entitlement, or if your Entitlement doesn't cover additional software delivered to you, then such software is for your Evaluation Use.

(a) Evaluation Use. You may evaluate Software internally for a period of 90 days from your first use.

(b) Research and Instructional Use. You may use Software internally to design, develop and test, and also to provide instruction on such uses.

(c) Individual Use. You may use Software internally for personal, individual use.

(d) Commercial Use. You may use Software internally for your own commercial purposes.

(e) Service Provider Use. You may make Software functionality accessible (but not by providing Software itself or through outsourcing services) to your end users in an extranet deployment, but not to your affiliated companies or to government agencies.

4. Licensed Units.

Your Permitted Use is limited to the number of Licensed Units stated in your Entitlement. If you require additional Licensed Units, you will need additional Entitlement(s).

5. Restrictions.

(a) The copies of Software provided to you under this Agreement are licensed, not sold, to you by Sun. Sun reserves all rights not expressly granted. (b) You may make a single archival copy of Software, but otherwise may not copy, modify, or distribute Software. However if the Sun documentation accompanying Software lists specific portions of Software, such as header files, class libraries, reference source code, and/or redistributable files, that may be handled differently, you may do so only as provided in the Sun documentation. (c) You may not rent, lease, lend or encumber Software. (d) Unless enforcement is prohibited by applicable law, you may not decompile, or reverse engineer Software. (e) The terms and conditions of this Agreement will apply to any Software updates, provided to you at Sun's discretion, that replace and/or supplement the original Software, unless such update contains a separate license. (f) You may not publish or provide the results of any benchmark or comparison tests run on Software to any third party without the prior written consent of Sun. (g) Software is confidential and copyrighted. (h) Unless otherwise specified, if Software is delivered with embedded or bundled software that enables functionality of Software, you may not use such software on a stand-alone basis or use any portion of such software to interoperate with any program(s) other than Software. (i) Software may contain programs that perform automated collection of system data and/or automated software updating services. System data collected through such programs may be used by Sun, its subcontractors, and its service delivery partners for the purpose of providing you with remote system services and/or improving Sun's software and systems. (j) Software is not designed, licensed or intended for use in the design, construction, operation or maintenance of any nuclear facility and Sun and its licensors disclaim any express or implied warranty of fitness for such uses. (k) No right, title or interest in or to any trademark, service mark, logo or trade name of Sun or its licensors is granted under this Agreement.

. Term and Termination.

The license and service term are set forth in your Entitlement(s). Your rights under this Agreement will terminate immediately without notice from Sun if you materially breach it or take any action in derogation of Sun's and/or its licensors' rights to Software. Sun may terminate this Agreement should any Software become, or in Sun's reasonable opinion likely to become, the subject of a claim of intellectual property infringement or trade secret misappropriation. Upon termination, you will cease use of, and destroy, Software and confirm compliance in writing to Sun. Sections 1, 5, 6, 7, and 9-15 will survive termination of the Agreement.

7. Java Compatibility and Open Source.

Software may contain Java technology. You may not create additional classes to, or modifications of, the Java technology, except under compatibility requirements available under a separate agreement available at www.java.net.

Sun supports and benefits from the global community of open source developers, and thanks the community for its important contributions and open standards-based technology, which Sun has adopted into many of its products.

Please note that portions of Software may be provided with notices and open source licenses from such communities and third parties that govern the use of those portions, and any licenses granted hereunder do not alter any rights and obligations you may have under such open source licenses, however, the disclaimer of warranty and limitation of liability provisions in this Agreement will apply to all Software in this distribution.

8. Limited Warranty.

 Sun warrants to you that for a period of 90 days from the date of purchase, as evidenced by a copy of the receipt, the media on which Software is furnished (if any) will be free of defects in materials and workmanship under normal use. Except for the foregoing, Software is provided "AS IS". Your exclusive remedy and Sun's entire liability under this limited warranty will be at Sun's option to replace Software media or refund the fee paid for Software. Some states do not allow limitations on certain implied warranties, so the above may not apply to you. This limited warranty gives you specific legal rights. You may have others, which vary from state to state.

9. Disclaimer of Warranty.

 UNLESS SPECIFIED IN THIS AGREEMENT, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT THESE DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

10. Limitation of Liability.

 TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event will Sun's liability to you, whether in contract, tort (including negligence), or otherwise, exceed the amount paid by you for Software under this Agreement. The foregoing limitations will apply even if the above stated warranty fails of its essential purpose. Some states do not allow the exclusion of incidental or consequential damages, so some of the terms above may not be applicable to you.

11. Export Regulations.

 All Software, documents, technical data, and any other materials delivered under this Agreement are subject to U.S. export control laws and may be subject to export or import regulations in other countries. You agree to comply strictly with these laws and regulations and acknowledge that you have the responsibility to obtain any licenses to export, re-export, or import as may be required after delivery to you.

12. U.S. Government Restricted Rights.

 If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation will be only as set forth in this Agreement; this is in accordance with 48 CFR 227.7201 through 227.7202-4 (for Department of Defense (DOD) acquisitions) and with 48 CFR 2.101 and 12.212 (for non-DOD acquisitions).

13. Governing Law.

Any action related to this Agreement will be governed by California law and controlling U.S. federal law. No choice of law rules of any jurisdiction will apply.

14. Severability.

If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

15. Integration.

This Agreement, including any terms contained in your Entitlement, is the entire agreement between you and Sun relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.

Please contact Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, California 95054 if you have questions.

Appendix L – Sun Binary Code License Agreement for JAI

Sun Microsystems, Inc.

Binary Code License Agreement

JAVA ADVANCED IMAGING API, VERSION 1.1.3

READ THE TERMS OF THIS AGREEMENT AND ANY PROVIDED SUPPLEMENTAL LICENSE TERMS (COLLECTIVELY "AGREEMENT") CAREFULLY BEFORE OPENING THE SOFTWARE MEDIA PACKAGE. BY OPENING THE SOFTWARE MEDIA PACKAGE, YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCESSING THE SOFTWARE ELECTRONICALLY, INDICATE YOUR ACCEPTANCE OF THESE TERMS BY SELECTING THE "ACCEPT" BUTTON AT THE END OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL THESE TERMS, PROMPTLY RETURN THE UNUSED SOFTWARE TO YOUR PLACE OF PURCHASE FOR A REFUND OR, IF THE SOFTWARE IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" BUTTON AT THE END OF THIS AGREEMENT.

1. LICENSE TO USE. Sun grants you a non-exclusive and non-transferable license for the internal use only of the accompanying software and documentation and any error corrections provided by Sun (collectively "Software"), by the number of users and the class of computer hardware for which the corresponding fee has been paid.

2. RESTRICTIONS. Software is confidential and copyrighted. Title to Software and all associated intellectual property rights is retained by Sun and/or its licensors. Except as specifically authorized in any Supplemental License Terms, you may not make copies of Software, other than a single copy of Software for archival purposes. Unless enforcement is prohibited by applicable law, you may not modify, decompile, or reverse engineer Software. Licensee acknowledges that Software is not designed or intended for use in the design, construction, operation or maintenance of any nuclear facility. Sun Microsystems, Inc. disclaims any express or implied warranty of fitness for such uses.   No right, title or interest in or to any trademark, service mark, logo or trade name of Sun or its licensors is granted under this Agreement.

3. LIMITED WARRANTY. Sun warrants to you that for a period of ninety (90) days from the date of purchase, as evidenced by a copy of the receipt, the media on which Software is furnished (if any) will be free of defects in materials and workmanship under normal use. Except for the foregoing, Software is provided "AS IS". Your exclusive remedy and Sun's entire liability under this limited warranty will be at Sun's option to replace Software media or refund the fee paid for Software.

4. DISCLAIMER OF WARRANTY. UNLESS SPECIFIED IN THIS AGREEMENT, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT THESE DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

5. LIMITATION OF LIABILITY. TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event will Sun's liability to you, whether in contract, tort (including negligence), or otherwise, exceed the amount paid by you for Software under this Agreement. The foregoing limitations will apply even if the above stated warranty fails of its essential purpose.

6. Termination. This Agreement is effective until terminated. You may terminate this Agreement at any time by destroying all copies of Software. This Agreement will terminate immediately without notice from Sun if you fail to comply with any provision of this Agreement. Upon Termination, you must destroy all copies of Software.

7. Export Regulations. All Software and technical data delivered under this Agreement are subject to US export control laws and may be subject to export or import regulations in other countries. You agree to comply strictly with all such laws and regulations and acknowledge that you have the responsibility to obtain such licenses to export, re-export, or import as may be required after delivery to you.

8. U.S. Government Restricted Rights. If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation will be only as set forth in this Agreement; this is in accordance with 48 CFR 227.7201 through 227.7202-4 (for Department of Defense (DOD) acquisitions) and with 48 CFR 2.101 and 12.212 (for non-DOD acquisitions).

9. Governing Law. Any action related to this Agreement will be governed by California law and controlling U.S. federal law. No choice of law rules of any jurisdiction will apply.

10. Severability. If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

11. Integration. This Agreement is the entire agreement between you and Sun relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.

JAVA ADVANCED IMAGING, VERSION 1.1.3

SUPPLEMENTAL LICENSE TERMS

These supplemental license terms ("Supplemental Terms") add to or modify the terms of the Binary Code License Agreement (collectively, the "Agreement"). Capitalized terms not defined in these Supplemental Terms shall have the same meanings ascribed to them in the Agreement. These Supplemental Terms shall supersede any inconsistent or conflicting terms in the Agreement, or in any license contained within the Software.

1. Software Internal Use and Development License Grant. Subject to the terms and conditions of this Agreement, including, but not limited to Section 3 (Java Technology Restrictions) of these Supplemental Terms, Sun grants you a non-exclusive, non-transferable, limited license to reproduce internally and use internally the binary form of the Software, complete and unmodified, for the sole purpose of designing, developing and testing your Java applets and applications ("Programs").

2. License to Distribute Software. In addition to the license granted in Section 1 (Software Internal Use and Development License Grant) of these Supplemental Terms, subject to the terms and conditions of this Agreement, including but not limited to, Section 3 (Java Technology Restrictions) of these Supplemental Terms, Sun grants you a non-exclusive, non-transferable, limited license to reproduce and distribute the Software in binary code form only, provided that you (i) distribute the Software complete and unmodified and only bundled as part of your Programs, (ii) do not distribute additional software intended to replace any component(s) of the Software, (iii) do not remove or alter any proprietary legends or notices contained in the Software, (iv) only distribute the Software subject to a license agreement that protects Sun's interests consistent with the terms contained in this Agreement, and (v) agree to defend and indemnify Sun and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software.

3. Java Technology Restrictions. You may not modify the Java Platform Interface ("JPI", identified as classes contained within the "java" package or any subpackages of the "java" package), by creating additional classes within the JPI or otherwise causing the addition to or modification of the classes in the JPI. In the event that you create an additional class and associated API(s) which (i) extends the functionality of the Java platform, and (ii) is exposed to third party software developers for the purpose of developing additional software which invokes such additional API, you must promptly publish broadly an accurate specification for such API for free use by all developers. You may not create, or authorize your licensees to create additional classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun" or similar convention as specified by Sun in any naming convention designation.

4. Java Runtime Availability. Refer to the appropriate version of the Java Runtime Environment binary code license (currently located at http://www.java.sun.com/jdk/index.html) for the availability of runtime code which may be distributed with Java applets and applications.

5. Trademarks and Logos. You acknowledge and agree as between you and Sun that Sun owns the SUN, SOLARIS, JAVA, JINI, FORTE, and iPLANET trademarks and all SUN, SOLARIS, JAVA, JINI, FORTE, and iPLANET-related trademarks, service marks, logos and other brand designations ("Sun Marks"), and you agree to comply with the Sun Trademark and Logo Usage Requirements currently located at http://www.sun.com/policies/trademarks. Any use you make of the Sun Marks inures to Sun's benefit.

6. Source Code. Software may contain source code that is provided solely for reference purposes pursuant to the terms of this Agreement. Source code may not be redistributed unless expressly provided for in this Agreement.

7. Termination for Infringement. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right.

8. Third Party Code. Additional copyright notices and license terms applicable to portions of the Software are set forth in the THIRDPARTYLICENSEREADME. In addition to any terms and conditions of any third party open source/freeware license identified in the THIRDPARTYLICENSEREADME, the disclaimer of warranty and limitation of liability provisions in paragraphs 5 and 6 of the Binary Code License Agreement shall apply to all Software in this distribution.

For inquiries please contact: Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A

(LFI#143342/Form ID#011801)

Appendix M – Sun Software License Agreement for JavaMail 1.4

Sun Microsystems, Inc. ("Sun") ENTITLEMENT for SOFTWARE

Licensee/Company: Entity receiving Software.

Effective Date: Date of delivery of the Software to You.

Software: JavaMail 1.4.

License Term: Perpetual (subject to termination under the SLA).

Licensed Unit: Software Copy.

Licensed unit Count: Unlimited.

Permitted Uses:

1. You may reproduce and use the Software for Individual, Commercial, or Research and Instructional Use for the purposes of designing, developing, testing, and running Your applets and application("Programs").

2. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the Software's documentation, You may reproduce and distribute portions of Software identified as a redistributable in the documentation ("Redistributable"), provided that:

 (a) you distribute Redistributable complete and unmodified and only bundled as part of Your Programs,

 (b) your Programs add significant and primary functionality to the Redistributable,

 (c) you distribute Redistributable for the sole purpose of running your Programs,

 (d) you do not distribute additional software intended to replace any component(s) of the Redistributable,

 (e) you do not remove or alter any proprietary legends or notices contained in or on the Redistributable.

 (f) you only distribute the Redistributable subject to a license agreement that protects Sun's interests consistent with the terms contained in this Agreement, and

 (g) you agree to defend and indemnify Sun and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Redistributable.

3. Java Technology Restrictions. You may not create, modify, or change the behavior of, or authorize your licensees to create, modify, or change the behavior of, classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun" or similar convention as specified by Sun in any naming convention designation.

B. Sun Microsystems, Inc. ("Sun")

SOFTWARE LICENSE AGREEMENT

READ THE TERMS OF THIS AGREEMENT ("AGREEMENT") CAREFULLY BEFORE OPENING SOFTWARE MEDIA PACKAGE. BY OPENING SOFTWARE MEDIA PACKAGE, YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCESSING SOFTWARE ELECTRONICALLY, INDICATE YOUR ACCEPTANCE OF THESE TERMS BY SELECTING THE "ACCEPT" BUTTON AT THE END OF THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS, PROMPTLY RETURN THE UNUSED SOFTWARE TO YOUR PLACE OF PURCHASE FOR A REFUND OR, IF SOFTWARE IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" (OR "EXIT") BUTTON AT THE END OF THIS AGREEMENT. IF YOU HAVE SEPARATELY AGREED TO LICENSE TERMS ("MASTER TERMS") FOR YOUR LICENSE TO THIS SOFTWARE, THEN SECTIONS 1-5 OF THIS AGREEMENT ("SUPPLEMENTAL LICENSE TERMS") SHALL SUPPLEMENT AND SUPERSEDE THE MASTER TERMS IN RELATION TO THIS SOFTWARE.

1.	Definitions.

(a)   "Entitlement" means the collective set of applicable documents authorized by Sun evidencing your obligation to pay associated fees (if any) for the license, associated Services, and the authorized scope of use of Software under this Agreement.

(b)   "Licensed Unit" means the unit of measure by which your use of Software and/or Service is licensed, as described in your Entitlement.

(c)   "Permitted Use" means the licensed Software use(s) authorized in this Agreement as specified in your Entitlement. The Permitted Use for any bundled Sun software not specified in your Entitlement will be evaluation use as provided in Section 3.

(d)   "Service" means the service(s) that Sun or its delegate will provide, if any, as selected in your Entitlement and as further described in the applicable service listings at www.sun.com/service/servicelist.

(e)   "Software" means the Sun software described in your Entitlement. Also, certain software may be included for evaluation use under Section 3.

(f)   "You" and "Your" means the individual or legal entity specified in the Entitlement, or for evaluation purposes, the entity performing the evaluation.

2.   License Grant and Entitlement.

Subject to the terms of your Entitlement, Sun grants you a nonexclusive, nontransferable limited license to use Software for its Permitted Use for the license term. Your Entitlement will specify (a) Software licensed, (b) the Permitted Use, (c) the license term, and (d) the Licensed Units.

Additionally, if your Entitlement includes Services, then it will also specify the (e) Service and (f) service term.

If your rights to Software or Services are limited in duration and the date such rights begin is other than the purchase date, your Entitlement will provide that beginning date(s).

The Entitlement may be delivered to you in various ways depending on the manner in which you obtain Software and Services, for example, the Entitlement may be provided in your receipt, invoice or your contract with Sun or authorized Sun reseller. It may also be in electronic format if you download Software.

3.   Permitted Use.

As selected in your Entitlement, one or more of the following Permitted Uses will apply to your use of Software. Unless you have an Entitlement that expressly permits it, you may not use Software for any of the other Permitted Uses. If you don't have an Entitlement, or if your Entitlement doesn't cover additional software delivered to you, then such software is for your Evaluation Use.

(a) Evaluation Use. You may evaluate Software internally for a period of 90 days from your first use.

(b) Research and Instructional Use. You may use Software internally to design, develop and test, and also to provide instruction on such uses.

(c) Individual Use. You may use Software internally for personal, individual use.

(d) Commercial Use. You may use Software internally for your own commercial purposes.

(e) Service Provider Use. You may make Software functionality accessible (but not by providing Software itself or through outsourcing services) to your end users in an extranet deployment, but not to your affiliated companies or to government agencies.

4.   Licensed Units.

Your Permitted Use is limited to the number of Licensed Units stated in your Entitlement. If you require additional Licensed Units, you will need additional Entitlement(s).

5.   Restrictions.

(a) The copies of Software provided to you under this Agreement are licensed, not sold, to you by Sun. Sun reserves all rights not expressly granted. (b) You may make a single archival copy of Software, but otherwise may not copy, modify, or distribute Software. However if the Sun documentation accompanying Software lists specific portions of Software, such as header files, class

libraries, reference source code, and/or redistributable files, that may be handled differently, you may do so only as provided in the Sun documentation. (c) You may not rent, lease, lend or encumber Software. (d) Unless enforcement is prohibited by applicable law, you may not decompile, or reverse engineer Software. (e) The terms and conditions of this Agreement will apply to any Software updates, provided to you at Sun's discretion, that replace and/or supplement the original Software, unless such update contains a separate license. (f) You may not publish or provide the results of any benchmark or comparison tests run on Software to any third party without the prior written consent of Sun. (g) Software is confidential and copyrighted. (h) Unless otherwise specified, if Software is delivered with embedded or bundled software that enables functionality of Software, you may not use such software on a stand-alone basis or use any portion of such software to interoperate with any program(s) other than Software. (i) Software may contain programs that perform automated collection of system data and/or automated software updating services. System data collected through such programs may be used by Sun, its subcontractors, and its service delivery partners for the purpose of providing you with remote system services and/or improving Sun's software and systems. (j) Software is not designed, licensed or intended for use in the design, construction, operation or maintenance of any nuclear facility and Sun and its licensors disclaim any express or implied warranty of fitness for such uses. (k) No right, title or interest in or to any trademark, service mark, logo or trade name of Sun or its licensors is granted under this Agreement.

6.   Term and Termination.

 The license and service term are set forth in your Entitlement(s). Your rights under this Agreement will terminate immediately without notice from Sun if you materially breach it or take any action in derogation of Sun's and/or its licensors' rights to Software. Sun may terminate this Agreement should any Software become, or in Sun's reasonable opinion likely to become, the subject of a claim of intellectual property infringement or trade secret misappropriation. Upon termination, you will cease use of, and destroy, Software and confirm compliance in writing to Sun. Sections 1, 5, 6, 7, and 9-15 will survive termination of the Agreement.

7.   Java Compatibility and Open Source.

Software may contain Java technology. You may not create additional classes to, or modifications of, the Java technology, except under compatibility requirements available under a separate agreement available at www.java.net.

 Sun supports and benefits from the global community of open source developers, and thanks the community for its important contributions and open standards-based technology, which Sun has adopted into many of its products.

Please note that portions of Software may be provided with notices and open source licenses from such communities and third parties that govern the use of those portions, and any licenses granted hereunder do not alter any rights and obligations you may have under such open source licenses, however, the disclaimer of warranty and limitation of liability provisions in this Agreement will apply to all Software in this distribution.

8.   Limited Warranty.

 Sun warrants to you that for a period of 90 days from the date of purchase, as evidenced by a copy of the receipt, the media on which Software is furnished (if any) will be free of defects in materials and workmanship under normal use. Except for the foregoing, Software is provided "AS IS". Your exclusive remedy and Sun's entire liability under this limited warranty will be at Sun's option to replace Software media or refund the fee paid for Software. Some states do not allow limitations on certain implied warranties, so the above may not apply to you. This limited warranty gives you specific legal rights. You may have others, which vary from state to state.

9.   Disclaimer of Warranty.

 UNLESS SPECIFIED IN THIS AGREEMENT, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT THESE DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

10.   Limitation of Liability.

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. In no event will Sun's liability to you, whether in contract, tort (including negligence), or otherwise, exceed the amount paid by you for Software under this Agreement. The foregoing limitations will apply even if the above stated warranty fails of its essential purpose. Some states do not allow the exclusion of incidental or consequential damages, so some of the terms above may not be applicable to you.

11. Export Regulations.

All Software, documents, technical data, and any other materials delivered under this Agreement are subject to U.S. export control laws and may be subject to export or import regulations in other countries. You agree to comply strictly with these laws and regulations and acknowledge that you have the responsibility to obtain any licenses to export, re-export, or import as may be required after delivery to you.

12. U.S. Government Restricted Rights.

If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation will be only as set forth in this Agreement; this is in accordance with 48 CFR 227.7201 through 227.7202-4 (for Department of Defense (DOD) acquisitions) and with 48 CFR 2.101 and 12.212 (for non-DOD acquisitions).

13. Governing Law.

Any action related to this Agreement will be governed by California law and controlling U.S. federal law. No choice of law rules of any jurisdiction will apply.

14. Severability.

If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

15. Integration.

This Agreement, including any terms contained in your Entitlement, is the entire agreement between you and Sun relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.

Please contact Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, California 95054 if you have questions.

Appendix N – GNU Lesser General Public License v3

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

   a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

   b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

   a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.

   b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

   a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.

   b) Accompany the Combined Work with a copy of the GNU GPL and this license document.

   c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.

   d) Do one of the following:

0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.

b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

Appendix O – GNU General Public License v3

GNU GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to

make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

   a) The work must carry prominent notices stating that you modified it, and giving a relevant date.

   b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".

   c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

   d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

   a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

   b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

   c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

   d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

   e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

7. Additional Terms.

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or

b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or

c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or

d) Limiting the use for publicity purposes of names of licensors or authors of the material; or

e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or

f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

11. Patents.

A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

12. No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

    <one line to give the program's name and a brief idea of what it does.>

    Copyright (C) <year> <name of author>

    This program is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program. If not, see <http://www.gnu.org/licenses/>.

Also add information on how to contact you by electronic and paper mail. If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:

<program> Copyright (C) <year> <name of author>

This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.

This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <http://www.gnu.org/licenses/>.

The GNU General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License. But first, please read <http://www.gnu.org/philosophy/why-not-lgpl.html>.

Appendix P – SOFTWARE WSDL4j

DESCRIPTION:

Allows the creation, representation, and manipulation of WSDL documents, and is the reference implementation for JSR110 'JWSDL'.

NOTICE:

(c) Copyright IBM Corp 2001, 2006

The WSDL4j components are licensed under the Common Public License v1.0.

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS COMMON PUBLIC LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

1. DEFINITIONS

"Contribution" means:

a) in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and

b) in the case of each subsequent Contributor:

i) changes to the Program, and

ii) additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of software distributed in conjunction with the Program under their own license agreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents " mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

2. GRANT OF RIGHTS

a) Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright license to reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contribution of such Contributor, if any, and such derivative works, in source code and object code form.

b) Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent license under Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent license shall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent license shall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.

c) Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any.For example, if a third party patent license is required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that license before distributing the Program.

d) Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright license set forth in this Agreement.

3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own license agreement, provided that:

a) it complies with the terms and conditions of this Agreement; and

b) its license agreement:

i) effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;

ii) effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;

iii) states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; and

iv) states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.

When the Program is made available in source code form:

a) it must be made available under this Agreement; and

b) a copy of this Agreement must be included with each copy of the Program.

Contributors may not remove or alter any copyright notices contained within the Program.

Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this license is intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement, including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT,STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

7. GENERAL

If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against a Contributor with respect to a patent applicable to software (including a cross-claim or counterclaim in a lawsuit), then any patent licenses granted by that Contributor to such Recipient under this Agreement shall terminate as of the date such litigation is filed. In addition, if Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. IBM is the initial Agreement Steward. IBM may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2(a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

Appendix Q – Common Development and Distribution License v1.1

COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)Version 1.1

1. Definitions.

1.1. "Contributor" means each individual or entity that creates or contributes to the creation of Modifications.

1.2. "Contributor Version" means the combination of the Original Software, prior Modifications used by a Contributor (if any), and the Modifications made by that particular Contributor.

1.3. "Covered Software" means (a) the Original Software, or (b) Modifications, or (c) the combination of files containing Original Software with files containing Modifications, in each case including portions thereof.

1.4. "Executable" means the Covered Software in any form other than Source Code.

1.5. "Initial Developer" means the individual or entity that first makes Original Software available under this License.

1.6. "Larger Work" means a work which combines Covered Software or portions thereof with code not governed by the terms of this License.

1.7. "License" means this document.

1.8. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means the Source Code and Executable form of any of the following:

A. Any file that results from an addition to, deletion from or modification of the contents of a file containing Original Software or previous Modifications;

B. Any new file that contains any part of the Original Software or previous Modification; or

C. Any new file that is contributed or otherwise made available under the terms of this License.

1.10. "Original Software" means the Source Code and Executable form of computer software code that is originally released under this License.

1.11. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.12. "Source Code" means (a) the common form of computer software code in which modifications are made and (b) associated documentation included in or with such code.

1.13. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity,

whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. License Grants.

2.1. The Initial Developer Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, the Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer, to use, reproduce, modify, display, perform, sublicense and distribute the Original Software (or portions thereof), with or without Modifications, and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using or selling of Original Software, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Software (or portions thereof).

(c) The licenses granted in Sections 2.1(a) and (b) are effective on the date Initial Developer first distributes or otherwise makes the Original Software available to a third party under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: (1) for code that You delete from the Original Software, or (2) for infringements caused by: (i) the modification of the Original Software, or (ii) the combination of the Original Software with other software or devices.

2.2. Contributor Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof), either on an unmodified basis, with other Modifications, as Covered Software and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: (1) Modifications made by that Contributor (or portions thereof); and (2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) The licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first distributes or otherwise makes the Modifications available to a third party.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: (1) for any code that Contributor has deleted from the Contributor Version; (2) for infringements caused by: (i) third party modifications of Contributor Version, or (ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or (3) under Patent Claims infringed by Covered Software in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Availability of Source Code.

Any Covered Software that You distribute or otherwise make available in Executable form must also be made available in Source Code form and that Source Code form must be distributed only under the terms of this License. You must include a copy of this License with every copy of the Source Code form of the Covered Software You distribute or otherwise make available. You must inform recipients of any such Covered Software in Executable form as to how they can obtain such Covered Software in Source Code form in a reasonable manner on or through a medium customarily used for software exchange.

3.2. Modifications.

The Modifications that You create or to which You contribute are governed by the terms of this License. You represent that You believe Your Modifications are Your original creation(s) and/or You have sufficient rights to grant the rights conveyed by this License.

3.3. Required Notices.

You must include a notice in each of Your Modifications that identifies You as the Contributor of the Modification. You may not remove or alter any copyright, patent or trademark notices contained within the Covered Software, or any notices of licensing or any descriptive text giving attribution to any Contributor or the Initial Developer.

3.4. Application of Additional Terms.

You may not offer or impose any terms on any Covered Software in Source Code form that alters or restricts the applicable version of this License or the recipients' rights hereunder. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Software. However, you may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.5. Distribution of Executable Versions.

You may distribute the Executable form of the Covered Software under the terms of this License or under the terms of a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable form does not attempt to limit or alter the recipient's rights in the Source Code form from the rights set forth in this License. If You distribute the Covered Software in Executable form under a different license, You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.6. Larger Works.

You may create a Larger Work by combining Covered Software with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Software.

4. Versions of the License.

4.1. New Versions.

Oracle is the initial license steward and may publish revised and/or new versions of this License from time to time. Each version will be given a distinguishing version number. Except as provided in Section 4.3, no one other than the license steward has the right to modify this License.

4.2. Effect of New Versions.

You may always continue to use, distribute or otherwise make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. If the Initial Developer includes a notice in the Original Software prohibiting it from being distributed or otherwise made available under any subsequent version of the License, You must distribute and make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. Otherwise, You may also choose to use, distribute or otherwise make the Covered Software available under the terms of any subsequent version of the License published by the license steward.

4.3. Modified Versions.

When You are an Initial Developer and You want to create a new license for Your Original Software, You may create and use a modified version of this License if You: (a) rename the license and remove any references to the name of the license steward (except to note that the license differs from this License); and (b) otherwise make it clear that the license contains terms which differ from this License.

5. DISCLAIMER OF WARRANTY.

COVERED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED SOFTWARE IS WITH YOU. SHOULD ANY COVERED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

6. TERMINATION.

6.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

6.2. If You assert a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You assert such claim is referred to as "Participant") alleging that the Participant Software (meaning the Contributor Version where the Participant is a Contributor or the Original Software where the Participant is the Initial Developer) directly or indirectly infringes any patent, then any and all rights granted directly or indirectly to You by such Participant, the Initial Developer (if the Initial Developer is not the Participant) and all Contributors under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively and automatically at the expiration of such 60 day notice period, unless if within such 60 day period You withdraw Your claim with respect to the Participant Software against such Participant either unilaterally or pursuant to a written agreement with Participant.

6.3. If You assert a patent infringement claim against Participant alleging that the Participant Software directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

6.4. In the event of termination under Sections 6.1 or 6.2 above, all end user licenses that have been validly granted by You or any distributor hereunder prior to termination (excluding licenses granted to You by any distributor) shall survive termination.

7. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

8. U.S. GOVERNMENT END USERS.

The Covered Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" (as that term is defined at 48 C.F.R. § 252.227-7014(a)(1)) and "commercial computer software documentation" as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Software with only those rights set forth herein. This U.S. Government Rights clause is in lieu of, and supersedes, any other FAR, DFAR, or other clause or provision that addresses Government rights in computer software under this License.

9. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by the law of the jurisdiction specified in a notice contained within the Original Software (except to the extent applicable law, if any, provides otherwise), excluding such jurisdiction's conflict-of-law provisions. Any litigation relating to this License shall be subject to the jurisdiction of the courts located in the jurisdiction and venue specified in a notice contained within the Original Software, with the losing party responsible for costs, including, without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License. You

agree that You alone are responsible for compliance with the United States export administration regulations (and the export control laws and regulation of any other countries) when You use, distribute or otherwise make available any Covered Software.

10. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

The code released under the CDDL shall be governed by the laws of the State of California (excluding conflict-of-law provisions). Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.

The GNU General Public License (GPL) Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the

Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

One line to give the program's name and a brief idea of what it does.

Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items-- whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

"CLASSPATH" EXCEPTION TO THE GPL VERSION 2

Certain source files distributed by Oracle are subject to the following clarification and special exception to the GPL Version 2, but only where Oracle has expressly included in the particular source file's header the words "Oracle designates this particular file as subject to the "Classpath" exception as provided by Oracle in the License file that accompanied this code."

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License Version 2 cover the whole combination.

As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module. An independent module is a module which is not derived from or based on this library. If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version.

Appendix R – SOFTWARE MD4

DESCRIPTION:

The MD4 Message-Digest Algorithm

Network Working Group   R. Rivest

Request for Comments: 1320 MIT Laboratory for Computer Science

Obsoletes: RFC 1186 and RSA Data Security, Inc.

April 1992

The MD4 Message-Digest Algorithm

Status of thie Memo

This memo provides information for the Internet community. It does not specify an Internet standard. Distribution of this memo is unlimited.

Acknowledgements

We would like to thank Don Coppersmith, Burt Kaliski, Ralph Merkle, and Noam Nisan for numerous helpful comments and suggestions.

Table of Contents

1. Executive Summary

This document describes the MD4 message-digest algorithm [1]. The algorithm takes as input a message of arbitrary length and produces as output a 128-bit "fingerprint" or "message digest" of the input. It is conjectured that it is computationally infeasible to produce two messages having the same message digest, or to produce any message having a given prespecified target message digest. The MD4 algorithm is intended for digital signature applications, where a large file must be "compressed" in a secure

manner before being encrypted with a private (secret) key under a public-key cryptosystem such as RSA. The MD4 algorithm is designed to be quite fast on 32-bit machines. In addition, the MD4 algorithm does not require any large substitution tables; the algorithm can be coded quite compactly. The MD4 algorithm is being placed in the public domain for review and possible adoption as a standard. This document replaces the October 1990 RFC 1186 [2]. The main difference is that the reference implementation of MD4 in the appendix is more portable. For OSI-based applications, MD4's object identifier is md4 OBJECT IDENTIFIER ::= {iso(1) member-body(2) US(840) rsadsi(113549) digestAlgorithm(2) 4}

In the X.509 type AlgorithmIdentifier [3], the parameters for MD4 should have type NULL.

2. Terminology and Notation

In this document a "word" is a 32-bit quantity and a "byte" is an eight-bit quantity. A sequence of bits can be interpreted in a natural manner as a sequence of bytes, where each consecutive group of eight bits is interpreted as a byte with the high-order (most significant) bit of each byte listed first. Similarly, a sequence of bytes can be interpreted as a sequence of 32-bit words, where each consecutive group of four bytes is interpreted as a word with the low-order (least significant) byte given first. Let x_i denote "x sub i". If the subscript is an expression, we surround it in braces, as in x_{i+1}. Similarly, we use ^ for superscripts (exponentiation), so that x^i denotes x to the i-th power.

Let the symbol "+" denote addition of words (i.e., modulo-2^{32} addition). Let X <<< s denote the 32-bit value obtained by circularly shifting (rotating) X left by s bit positions. Let not(X) denote the bit-wise complement of X, and let X v Y denote the bit-wise OR of X and Y. Let X xor Y denote the bit-wise XOR of X and Y, and let XY denote the bit-wise AND of X and Y.

3. MD4 Algorithm Description

We begin by supposing that we have a b-bit message as input, and that we wish to find its message digest. Here b is an arbitrary nonnegative integer; b may be zero, it need not be a multiple of eight, and it may be arbitrarily large. We imagine the bits of the message written down as follows:

  m_0 m_1 ... m_{b-1}

The following five steps are performed to compute the message digest of the message.

3.1 Step 1. Append Padding Bits

The message is "padded" (extended) so that its length (in bits) is congruent to 448, modulo 512. That is, the message is extended so that it is just 64 bits shy of being a multiple of 512 bits long. Padding is always performed, even if the length of the message is already congruent to 448, modulo 512.

Padding is performed as follows: a single "1" bit is appended to the message, and then "0" bits are appended so that the length in bits of the padded message becomes congruent to 448, modulo 512. In all, at least one bit and at most 512 bits are appended.

3.2 Step 2. Append Length

A 64-bit representation of b (the length of the message before the padding bits were added) is appended to the result of the previous step. In the unlikely event that b is greater than 2^{64}, then only the low-order 64 bits of b are used. (These bits are appended as two 32-bit words and appended low-order word first in accordance with the previous conventions.)

At this point the resulting message (after padding with bits and with b) has a length that is an exact multiple of 512 bits. Equivalently, this message has a length that is an exact multiple of 16 (32-bit) words. Let M[0 ... N-1] denote the words of the resulting message, where N is a multiple of 16.

3.3 Step 3. Initialize MD Buffer

A four-word buffer (A,B,C,D) is used to compute the message digest. Here each of A, B, C, D is a 32-bit register. These registers are initialized to the following values in hexadecimal, low-order bytes first):

  word A: 01 23 45 67
  word B: 89 ab cd ef
  word C: fe dc ba 98
  word D: 76 54 32 10

3.4 Step 4. Process Message in 16-Word Blocks

We first define three auxiliary functions that each take as input three 32-bit words and produce as output one 32-bit word.

  F(X,Y,Z) = XY v not(X) Z
  G(X,Y,Z) = XY v XZ v YZ
  H(X,Y,Z) = X xor Y xor Z

In each bit position F acts as a conditional: if X then Y else Z. The function F could have been defined using + instead of v since XY and not(X)Z will never have "1" bits in the same bit position.) In each bit position G acts as a majority function: if at least two of X, Y, Z are on, then G has a "1" bit in that bit position, else G has a "0" bit. It is interesting to note that if the bits of X, Y, and Z are independent and unbiased, the each bit of f(X,Y,Z) will be independent and unbiased, and similarly each bit of g(X,Y,Z) will be independent and unbiased. The function H is the bit-wise XOR or parity" function; it has properties similar to those of F and G.

Do the following:

Process each 16-word block. */
For i = 0 to N/16-1 do

  /* Copy block i into X. */
  For j = 0 to 15 do
 Set X[j] to M[i*16+j].
  end /* of loop on j */

  /* Save A as AA, B as BB, C as CC, and D as DD. */
  AA = A

BB = B

CC = C

DD = D

/* Round 1. */

/* Let [abcd k s] denote the operation

a = (a + F(b,c,d) + X[k]) <<< s. */

/* Do the following 16 operations. */

[ABCD 0 3] [DABC 1 7] [CDAB 2 11] [BCDA 3 19]

[ABCD 4 3] [DABC 5 7] [CDAB 6 11] [BCDA 7 19]

[ABCD 8 3] [DABC 9 7] [CDAB 10 11] [BCDA 11 19]

[ABCD 12 3] [DABC 13 7] [CDAB 14 11] [BCDA 15 19]

/* Round 2. */

/* Let [abcd k s] denote the operation

a = (a + G(b,c,d) + X[k] + 5A827999) <<< s. */

/* Do the following 16 operations. */

[ABCD 0 3] [DABC 4 5] [CDAB 8 9] [BCDA 12 13]

[ABCD 1 3] [DABC 5 5] [CDAB 9 9] [BCDA 13 13]

[ABCD 2 3] [DABC 6 5] [CDAB 10 9] [BCDA 14 13]

[ABCD 3 3] [DABC 7 5] [CDAB 11 9] [BCDA 15 13]

/* Round 3. */

/* Let [abcd k s] denote the operation

a = (a + H(b,c,d) + X[k] + 6ED9EBA1) <<< s. */

/* Do the following 16 operations. */

[ABCD 0 3] [DABC 8 9] [CDAB 4 11] [BCDA 12 15]

[ABCD 2 3] [DABC 10 9] [CDAB 6 11] [BCDA 14 15]

[ABCD 1 3] [DABC 9 9] [CDAB 5 11] [BCDA 13 15]

[ABCD 3 3] [DABC 11 9] [CDAB 7 11] [BCDA 15 15]

/* Then perform the following additions. (That is, increment each of the four registers by the value it had before this block was started.) */

A = A + AA

B = B + BB

C = C + CC

D = D + DD

end /* of loop on i */

Note. The value 5A..99 is a hexadecimal 32-bit constant, written with the high-order digit first. This constant represents the square root of 2. The octal value of this constant is 013240474631.

The value 6E..A1 is a hexadecimal 32-bit constant, written with the high-order digit first. This constant represents the square root of 3. The octal value of this constant is 015666365641.

See Knuth, The Art of Programming, Volume 2 (Seminumerical Algorithms), Second Edition (1981), Addison-Wesley. Table 2, page 660.

3.5 Step 5. Output

The message digest produced as output is A, B, C, D. That is, we begin with the low-order byte of A, and end with the high-order byte of D.

This completes the description of MD4. A reference implementation in C is given in the appendix.

4. Summary

The MD4 message-digest algorithm is simple to implement, and provides a "fingerprint" or message digest of a message of arbitrary length. It is conjectured that the difficulty of coming up with two messages having the same message digest is on the order of 2^{64} operations, and that the difficulty of coming up with any message having a given message digest is on the order of 2^{128} operations. The MD4 algorithm has been carefully scrutinized for weaknesses. It is, however, a relatively new algorithm and further security analysis is of course justified, as is the case with any new proposal of this sort.

References

[1] Rivest, R., "The MD4 message digest algorithm", in A.J. Menezes and S.A. Vanstone, editors, Advances in Cryptology - CRYPTO '90 Proceedings, pages 303-311, Springer-Verlag, 1991.

[2] Rivest, R., "The MD4 Message Digest Algorithm", RFC 1186, MIT, October 1990.

[3] CCITT Recommendation X.509 (1988), "The Directory - Authentication Framework".

[4] Rivest, R., "The MD5 Message-Digest Algorithm", RFC 1321, MIT and RSA Data Security, Inc, April 1992.

APPENDIX A - Reference Implementation

This appendix contains the following files:
  global.h -- global header file
  md4.h -- header file for MD4
  md4c.c -- source code for MD4
  mddriver.c -- test driver for MD2, MD4 and MD5

The driver compiles for MD5 by default but can compile for MD2 or MD4 if the symbol MD is defined on the C compiler command line as 2 or 4.

The implementation is portable and should work on many different plaforms. However, it is not difficult to optimize the implementation on particular platforms, an exercise left to the reader. For example, on "little-endian" platforms where the lowest-addressed byte in a 32- bit word is the least significant and there are no alignment restrictions, the call to Decode in MD4Transform can be replaced with a typecast.

A.1 global.h

/* GLOBAL.H - RSAREF types and constants
 */

/* PROTOTYPES should be set to one if and only if the compiler support function argument prototyping. The following makes PROTOTYPES default to 0 if it has not already been defined with C compiler flags.
 */
#ifndef PROTOTYPES
#define PROTOTYPES 0
#endif

/* POINTER defines a generic pointer type */
typedef unsigned char *POINTER;

/* UINT2 defines a two byte word */
typedef unsigned short int UINT2;

/* UINT4 defines a four byte word */
typedef unsigned long int UINT4;

/* PROTO_LIST is defined depending on how PROTOTYPES is defined above. If using PROTOTYPES, then PROTO_LIST returns the list, otherwise it returns an empty list.
 */

#if PROTOTYPES
#define PROTO_LIST(list) list
#else
#define PROTO_LIST(list) ()
#endif

A.2 md4.h

/* MD4.H - header file for MD4C.C
 */

/* MD4 context. */
typedef struct {
  UINT4 state[4]; /* state (ABCD) */
  UINT4 count[2];   /* number of bits, modulo 2^64 (lsb first) */
  unsigned char buffer[64];   /* input buffer */
} MD4_CTX;

void MD4Init PROTO_LIST ((MD4_CTX *));
void MD4Update PROTO_LIST
  ((MD4_CTX *, unsigned char *, unsigned int));
void MD4Final PROTO_LIST ((unsigned char [16], MD4_CTX *));

A.3 md4c.c

/* MD4C.C - RSA Data Security, Inc., MD4 message-digest algorithm
 */

makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.
 */

#include "global.h"
#include "md4.h"

/* Constants for MD4Transform routine.
 */
#define S11 3
#define S12 7
#define S13 11
#define S14 19
#define S21 3
#define S22 5
#define S23 9
#define S24 13
#define S31 3
#define S32 9
#define S33 11
#define S34 15

static void MD4Transform PROTO_LIST ((UINT4 [4], unsigned char [64]));
static void Encode PROTO_LIST
  ((unsigned char *, UINT4 *, unsigned int));
static void Decode PROTO_LIST
  ((UINT4 *, unsigned char *, unsigned int));
static void MD4_memcpy PROTO_LIST ((POINTER, POINTER, unsigned int));
static void MD4_memset PROTO_LIST ((POINTER, int, unsigned int));

static unsigned char PADDING[64] = {
  0x80, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
};

/* F, G and H are basic MD4 functions.
 */
#define F(x, y, z) (((x) & (y)) | ((~x) & (z)))

```
#define G(x, y, z) (((x) & (y)) | ((x) & (z)) | ((y) & (z)))
#define H(x, y, z) ((x) ^ (y) ^ (z))


/* ROTATE_LEFT rotates x left n bits.
 */
#define ROTATE_LEFT(x, n) (((x) << (n)) | ((x) >> (32-(n))))


/* FF, GG and HH are transformations for rounds 1, 2 and 3 */
/* Rotation is separate from addition to prevent recomputation */


#define FF(a, b, c, d, x, s) { \
   (a) += F ((b), (c), (d)) + (x); \
   (a) = ROTATE_LEFT ((a), (s)); \
  }
#define GG(a, b, c, d, x, s) { \
   (a) += G ((b), (c), (d)) + (x) + (UINT4)0x5a827999; \
   (a) = ROTATE_LEFT ((a), (s)); \
  }
#define HH(a, b, c, d, x, s) { \
   (a) += H ((b), (c), (d)) + (x) + (UINT4)0x6ed9eba1; \
   (a) = ROTATE_LEFT ((a), (s)); \
  }


/* MD4 initialization. Begins an MD4 operation, writing a new context.
 */
void MD4Init (context)
MD4_CTX *context;                          /* context */
{
  context->count[0] = context->count[1] = 0;


  /* Load magic initialization constants.
   */
  context->state[0] = 0x67452301;
  context->state[1] = 0xefcdab89;
  context->state[2] = 0x98badcfe;
  context->state[3] = 0x10325476;
}


/* MD4 block update operation. Continues an MD4 message-digest operation, processing another message block, and updating the
context.
 */
```

```
void MD4Update (context, input, inputLen)
MD4_CTX *context;                              /* context */
unsigned char *input;                   /* input block */
unsigned int inputLen;            /* length of input block */
{
  unsigned int i, index, partLen;

  /* Compute number of bytes mod 64 */
  index = (unsigned int)((context->count[0] >> 3) & 0x3F);
  /* Update number of bits */
  if ((context->count[0] += ((UINT4)inputLen << 3))
     < ((UINT4)inputLen << 3))
    context->count[1]++;
  context->count[1] += ((UINT4)inputLen >> 29);

  partLen = 64 - index;

  /* Transform as many times as possible.
   */
  if (inputLen >= partLen) {
   MD4_memcpy
     ((POINTER)&context->buffer[index], (POINTER)input, partLen);
   MD4Transform (context->state, context->buffer);

   for (i = partLen; i + 63 < inputLen; i += 64)
     MD4Transform (context->state, &input[i]);

   index = 0;
  }
  else
   i = 0;

  /* Buffer remaining input */
  MD4_memcpy
    ((POINTER)&context->buffer[index], (POINTER)&input[i],
     inputLen-i);
}

/* MD4 finalization. Ends an MD4 message-digest operation, writing the message digest and zeroizing the context.
 */
```

```
void MD4Final (digest, context)
unsigned char digest[16];                    /* message digest */
MD4_CTX *context;                            /* context */
{
  unsigned char bits[8];
  unsigned int index, padLen;

  /* Save number of bits */
  Encode (bits, context->count, 8);

  /* Pad out to 56 mod 64.
   */
  index = (unsigned int)((context->count[0] >> 3) & 0x3f);
  padLen = (index < 56) ? (56 - index) : (120 - index);
  MD4Update (context, PADDING, padLen);

  /* Append length (before padding) */
  MD4Update (context, bits, 8);
  /* Store state in digest */
  Encode (digest, context->state, 16);

  /* Zeroize sensitive information.
   */
  MD4_memset ((POINTER)context, 0, sizeof (*context));

}

/* MD4 basic transformation. Transforms state based on block.
 */
static void MD4Transform (state, block)
UINT4 state[4];
unsigned char block[64];
{
  UINT4 a = state[0], b = state[1], c = state[2], d = state[3], x[16];

  Decode (x, block, 64);

  /* Round 1 */
  FF (a, b, c, d, x[ 0], S11); /* 1 */
  FF (d, a, b, c, x[ 1], S12); /* 2 */
```

```
FF (c, d, a, b, x[ 2], S13); /* 3 */
FF (b, c, d, a, x[ 3], S14); /* 4 */
FF (a, b, c, d, x[ 4], S11); /* 5 */
FF (d, a, b, c, x[ 5], S12); /* 6 */
FF (c, d, a, b, x[ 6], S13); /* 7 */
FF (b, c, d, a, x[ 7], S14); /* 8 */
FF (a, b, c, d, x[ 8], S11); /* 9 */
FF (d, a, b, c, x[ 9], S12); /* 10 */
FF (c, d, a, b, x[10], S13); /* 11 */
FF (b, c, d, a, x[11], S14); /* 12 */
FF (a, b, c, d, x[12], S11); /* 13 */
FF (d, a, b, c, x[13], S12); /* 14 */
FF (c, d, a, b, x[14], S13); /* 15 */
FF (b, c, d, a, x[15], S14); /* 16 */

/* Round 2 */
GG (a, b, c, d, x[ 0], S21); /* 17 */
GG (d, a, b, c, x[ 4], S22); /* 18 */
GG (c, d, a, b, x[ 8], S23); /* 19 */
GG (b, c, d, a, x[12], S24); /* 20 */
GG (a, b, c, d, x[ 1], S21); /* 21 */
GG (d, a, b, c, x[ 5], S22); /* 22 */
GG (c, d, a, b, x[ 9], S23); /* 23 */
GG (b, c, d, a, x[13], S24); /* 24 */
GG (a, b, c, d, x[ 2], S21); /* 25 */
GG (d, a, b, c, x[ 6], S22); /* 26 */
GG (c, d, a, b, x[10], S23); /* 27 */
GG (b, c, d, a, x[14], S24); /* 28 */
GG (a, b, c, d, x[ 3], S21); /* 29 */
GG (d, a, b, c, x[ 7], S22); /* 30 */
GG (c, d, a, b, x[11], S23); /* 31 */
GG (b, c, d, a, x[15], S24); /* 32 */

/* Round 3 */
HH (a, b, c, d, x[ 0], S31); /* 33 */
HH (d, a, b, c, x[ 8], S32); /* 34 */
HH (c, d, a, b, x[ 4], S33); /* 35 */
HH (b, c, d, a, x[12], S34); /* 36 */
HH (a, b, c, d, x[ 2], S31); /* 37 */
HH (d, a, b, c, x[10], S32); /* 38 */
```

```c
  HH (c, d, a, b, x[ 6], S33); /* 39 */
  HH (b, c, d, a, x[14], S34); /* 40 */
  HH (a, b, c, d, x[ 1], S31); /* 41 */
  HH (d, a, b, c, x[ 9], S32); /* 42 */
  HH (c, d, a, b, x[ 5], S33); /* 43 */
  HH (b, c, d, a, x[13], S34); /* 44 */
  HH (a, b, c, d, x[ 3], S31); /* 45 */
  HH (d, a, b, c, x[11], S32); /* 46 */
  HH (c, d, a, b, x[ 7], S33); /* 47 */
  HH (b, c, d, a, x[15], S34); /* 48 */


  state[0] += a;
  state[1] += b;
  state[2] += c;
  state[3] += d;


  /* Zeroize sensitive information.
   */
  MD4_memset ((POINTER)x, 0, sizeof (x));
}


/* Encodes input (UINT4) into output (unsigned char). Assumes len is a multiple of 4.
 */
static void Encode (output, input, len)
unsigned char *output;
UINT4 *input;
unsigned int len;
{
  unsigned int i, j;

  for (i = 0, j = 0; j < len; i++, j += 4) {
    output[j] = (unsigned char)(input[i] & 0xff);
    output[j+1] = (unsigned char)((input[i] >> 8) & 0xff);
    output[j+2] = (unsigned char)((input[i] >> 16) & 0xff);
    output[j+3] = (unsigned char)((input[i] >> 24) & 0xff);
  }
}


/* Decodes input (unsigned char) into output (UINT4). Assumes len is
   a multiple of 4.
```

```c
 */
static void Decode (output, input, len)

UINT4 *output;
unsigned char *input;
unsigned int len;
{
  unsigned int i, j;

  for (i = 0, j = 0; j < len; i++, j += 4)
    output[i] = ((UINT4)input[j]) | (((UINT4)input[j+1]) << 8) |
      (((UINT4)input[j+2]) << 16) | (((UINT4)input[j+3]) << 24);
}

/* Note: Replace "for loop" with standard memcpy if possible.
 */
static void MD4_memcpy (output, input, len)
POINTER output;
POINTER input;
unsigned int len;
{
  unsigned int i;

  for (i = 0; i < len; i++)
    output[i] = input[i];
}

/* Note: Replace "for loop" with standard memset if possible.
 */
static void MD4_memset (output, value, len)
POINTER output;
int value;
unsigned int len;
{
  unsigned int i;

  for (i = 0; i < len; i++)
    ((char *)output)[i] = (char)value;
}
```

A.4 mddriver.c

```
/* MDDRIVER.C - test driver for MD2, MD4 and MD5
 */

/* Copyright (C) 1990-2, RSA Data Security, Inc. Created 1990. All rights reserved.
```

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

```
 */

/* The following makes MD default to MD5 if it has not already been defined with C compiler flags.
 */
#ifndef MD
#define MD MD5
#endif

#include <stdio.h>
#include <time.h>
#include <string.h>
#include "global.h"
#if MD == 2
#include "md2.h"
#endif
#if MD == 4
#include "md4.h"
#endif
#if MD == 5
#include "md5.h"
#endif

/* Length of test block, number of test blocks.
 */
#define TEST_BLOCK_LEN 1000
#define TEST_BLOCK_COUNT 1000

static void MDString PROTO_LIST ((char *));
static void MDTimeTrial PROTO_LIST ((void));
```

```c
static void MDTestSuite PROTO_LIST ((void));
static void MDFile PROTO_LIST ((char *));
static void MDFilter PROTO_LIST ((void));
static void MDPrint PROTO_LIST ((unsigned char [16]));


#if MD == 2
#define MD_CTX MD2_CTX
#define MDInit MD2Init
#define MDUpdate MD2Update
#define MDFinal MD2Final


#endif
#if MD == 4
#define MD_CTX MD4_CTX
#define MDInit MD4Init
#define MDUpdate MD4Update
#define MDFinal MD4Final
#endif
#if MD == 5
#define MD_CTX MD5_CTX
#define MDInit MD5Init
#define MDUpdate MD5Update
#define MDFinal MD5Final
#endif

/* Main driver.

   Arguments (may be any combination):
     -sstring - digests string
     -t       - runs time trial
     -x       - runs test script
     filename - digests file
     (none)   - digests standard input
 */
int main (argc, argv)
int argc;
char *argv[];
{
  int i;
```

```c
  if (argc > 1)
    for (i = 1; i < argc; i++)
      if (argv[i][0] == '-' && argv[i][1] == 's')
        MDString (argv[i] + 2);
      else if (strcmp (argv[i], "-t") == 0)
        MDTimeTrial ();
      else if (strcmp (argv[i], "-x") == 0)
        MDTestSuite ();
      else
        MDFile (argv[i]);
  else
    MDFilter ();

  return (0);
}

/* Digests a string and prints the result.
 */
static void MDString (string)

char *string;
{
  MD_CTX context;
  unsigned char digest[16];
  unsigned int len = strlen (string);

  MDInit (&context);
  MDUpdate (&context, string, len);
  MDFinal (digest, &context);

  printf ("MD%d (\"%s\") = ", MD, string);
  MDPrint (digest);
  printf ("\n");
}

/* Measures the time to digest TEST_BLOCK_COUNT TEST_BLOCK_LEN-byte
   blocks.
 */
static void MDTimeTrial ()
{
```

```c
  MD_CTX context;
  time_t endTime, startTime;
  unsigned char block[TEST_BLOCK_LEN], digest[16];
  unsigned int i;

  printf
    ("MD%d time trial. Digesting %d %d-byte blocks ...", MD,
     TEST_BLOCK_LEN, TEST_BLOCK_COUNT);

  /* Initialize block */
  for (i = 0; i < TEST_BLOCK_LEN; i++)
    block[i] = (unsigned char)(i & 0xff);

  /* Start timer */
  time (&startTime);

  /* Digest blocks */
  MDInit (&context);
  for (i = 0; i < TEST_BLOCK_COUNT; i++)
    MDUpdate (&context, block, TEST_BLOCK_LEN);
  MDFinal (digest, &context);

  /* Stop timer */
  time (&endTime);

  printf (" done\n");
  printf ("Digest = ");
  MDPrint (digest);

  printf ("\nTime = %ld seconds\n", (long)(endTime-startTime));
  printf
    ("Speed = %ld bytes/second\n",
     (long)TEST_BLOCK_LEN * (long)TEST_BLOCK_COUNT/(endTime-startTime));
}

/* Digests a reference suite of strings and prints the results.
 */
static void MDTestSuite ()
{
  printf ("MD%d test suite:\n", MD);
```

```
MDString ("");
MDString ("a");
MDString ("abc");
MDString ("message digest");
MDString ("abcdefghijklmnopqrstuvwxyz");
MDString
  ("ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789");
MDString


  ("12345678901234567890123456789012345678901234567890\
12345678901234567890123456789012345678901234567890");
}

/* Digests a file and prints the result.
 */
static void MDFile (filename)
char *filename;
{
 FILE *file;
 MD_CTX context;
 int len;
 unsigned char buffer[1024], digest[16];

 if ((file = fopen (filename, "rb")) == NULL)
   printf ("%s can't be opened\n", filename);

 else {
  MDInit (&context);
  while (len = fread (buffer, 1, 1024, file))
    MDUpdate (&context, buffer, len);
  MDFinal (digest, &context);

  fclose (file);

  printf ("MD%d (%s) = ", MD, filename);
  MDPrint (digest);

  printf ("\n");
 }
```

```
}

/* Digests the standard input and prints the result.
 */
static void MDFilter ()
{
  MD_CTX context;
  int len;
  unsigned char buffer[16], digest[16];

  MDInit (&context);
  while (len = fread (buffer, 1, 16, stdin))
    MDUpdate (&context, buffer, len);
  MDFinal (digest, &context);

  MDPrint (digest);
  printf ("\n");
}

/* Prints a message digest in hexadecimal.
 */
static void MDPrint (digest)
unsigned char digest[16];

{
  unsigned int i;

  for (i = 0; i < 16; i++)
    printf ("%02x", digest[i]);
}
```

A.5 Test suite

 The MD4 test suite (driver option "-x") should print the following results:

MD4 test suite:

MD4 ("") = 31d6cfe0d16ae931b73c59d7e0c089c0

MD4 ("a") = bde52cb31de33e46245e05fbdbd6fb24

MD4 ("abc") = a448017aaf21d8525fc10ae87aa6729d

MD4 ("message digest") = d9130a8164549fe818874806e1c7014b

MD4 ("abcdefghijklmnopqrstuvwxyz") = d79e1c308aa5bbcdeea8ed63df412da9

MD4 ("ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789") =
043f8582f241db351ce627e153e7f0e4

MD4 ("123456789012345678901234567890123456789012345678901234567890123456
78901234567890") = e33b4ddc9c38f2199c3e7b164fcc0536

Security Considerations

The level of security discussed in this memo is considered to be sufficient for implementing moderate security hybrid digital-signature schemes based on MD4 and a public-key cryptosystem. We do not know of any reason that MD4 would not be sufficient for implementing very high security digital-signature schemes, but because MD4 was designed to be exceptionally fast, it is "at the edge" in terms of risking successful cryptanalytic attack. After further critical review, it may be appropriate to consider MD4 for very high security applications. For very high security applications before the completion of that review, the MD5 algorithm [4] is recommended.

Author's Address

Ronald L. Rivest

Massachusetts Institute of Technology

Laboratory for Computer Science

NE43-324

545 Technology Square

Cambridge, MA 02139-1986

Phone: (617) 253-5880

EMail: *rivest@theory.lcs.mit.edu*

Appendix S – SOFTWARE MD5

DESCRIPTION:

The MD5 Message-Digest Algorithm

The MD5 Message-Digest Algorithm

Status of this Memo

This memo provides information for the Internet community. It does not specify an Internet standard. Distribution of this memo is unlimited.

Acknowledgements

   We would like to thank Don Coppersmith, Burt Kaliski, Ralph Merkle, David Chaum, and Noam Nisan for numerous helpful comments and suggestions.

Table of Contents

1. Executive Summary

This document describes the MD5 message-digest algorithm. The algorithm takes as input a message of arbitrary length and produces as output a 128-bit "fingerprint" or "message digest" of the input. It is conjectured that it is computationally infeasible to produce two messages having the same message digest, or to produce any message having a given prespecified target message digest. The MD5 algorithm is intended for digital signature applications, where a large file must be "compressed" in a secure manner before being encrypted with a private (secret) key under a public-key cryptosystem such as RSA.

The MD5 algorithm is designed to be quite fast on 32-bit machines. In addition, the MD5 algorithm does not require any large substitution tables; the algorithm can be coded quite compactly.

The MD5 algorithm is an extension of the MD4 message-digest algorithm 1,2]. MD5 is slightly slower than MD4, but is more "conservative" in design. MD5 was designed because it was felt that MD4 was perhaps being adopted for use more quickly than justified by the existing critical review; because MD4 was designed to be exceptionally fast, it is "at the edge" in terms of risking successful cryptanalytic attack. MD5 backs off a bit, giving up a little in speed for a much greater likelihood of ultimate security. It incorporates some suggestions made by various reviewers, and contains additional optimizations. The MD5 algorithm is being placed in the public domain for review and possible adoption as a standard.

For OSI-based applications, MD5's object identifier is

md5 OBJECT IDENTIFIER ::=
     iso(1) member-body(2) US(840) rsadsi(113549) digestAlgorithm(2) 5}

In the X.509 type AlgorithmIdentifier [3], the parameters for MD5
should have type NULL.

2. Terminology and Notation

In this document a "word" is a 32-bit quantity and a "byte" is an eight-bit quantity. A sequence of bits can be interpreted in a natural manner as a sequence of bytes, where each consecutive group of eight bits is interpreted as a byte with the high-order (most significant) bit of each byte listed first. Similarly, a sequence of bytes can be interpreted as a sequence of 32-bit words, where each consecutive group of four bytes is interpreted as a word with the

low-order (least significant) byte given first.

Let x_i denote "x sub i". If the subscript is an expression, we surround it in braces, as in x_{i+1}. Similarly, we use ^ for superscripts (exponentiation), so that x^i denotes x to the i-th power.

Let the symbol "+" denote addition of words (i.e., modulo-2^{32} addition). Let $X <<< s$ denote the 32-bit value obtained by circularly shifting (rotating) X left by s bit positions. Let not(X) denote the bit-wise complement of X, and let X v Y denote the bit-wise OR of X and Y. Let X xor Y denote the bit-wise XOR of X and Y, and let XY denote the bit-wise AND of X and Y.

3. MD5 Algorithm Description

We begin by supposing that we have a b-bit message as input, and that we wish to find its message digest. Here b is an arbitrary nonnegative integer; b may be zero, it need not be a multiple of

eight, and it may be arbitrarily large. We imagine the bits of the message written down as follows:

$m_0\ m_1\ ...\ m_{b-1}$

The following five steps are performed to compute the message digest of the message.

3.1 Step 1. Append Padding Bits

The message is "padded" (extended) so that its length (in bits) is congruent to 448, modulo 512. That is, the message is extended so that it is just 64 bits shy of being a multiple of 512 bits long. Padding is always performed, even if the length of the message is already congruent to 448, modulo 512.

Padding is performed as follows: a single "1" bit is appended to the message, and then "0" bits are appended so that the length in bits of the padded message becomes congruent to 448, modulo 512. In all, at least one bit and at most 512 bits are appended.

3.2 Step 2. Append Length

A 64-bit representation of b (the length of the message before the padding bits were added) is appended to the result of the previous step. In the unlikely event that b is greater than 2^{64}, then only the low-order 64 bits of b are used. (These bits are appended as two 32-bit words and appended low-order word first in accordance with the previous conventions.)

At this point the resulting message (after padding with bits and with b) has a length that is an exact multiple of 512 bits. Equivalently, this message has a length that is an exact multiple of 16 (32-bit) words. Let M[0 ... N-1] denote the words of the resulting message, where N is a multiple of 16.

3.3 Step 3. Initialize MD Buffer

A four-word buffer (A,B,C,D) is used to compute the message digest. Here each of A, B, C, D is a 32-bit register. These registers are initialized to the following values in hexadecimal, low-order bytes first):

    word A: 01 23 45 67
    word B: 89 ab cd ef
    word C: fe dc ba 98
    word D: 76 54 32 10

3.4 Step 4. Process Message in 16-Word Blocks

We first define four auxiliary functions that each take as input three 32-bit words and produce as output one 32-bit word.

    F(X,Y,Z) = XY v not(X) Z
    G(X,Y,Z) = XZ v Y not(Z)
    H(X,Y,Z) = X xor Y xor Z
    I(X,Y,Z) = Y xor (X v not(Z))

In each bit position F acts as a conditional: if X then Y else Z. The function F could have been defined using + instead of v since XY and not(X)Z will never have 1's in the same bit position.) It is interesting to note that if the bits of X, Y, and Z are independent and unbiased, the each bit of F(X,Y,Z) will be independent and unbiased.

The functions G, H, and I are similar to the function F, in that they act in "bitwise parallel" to produce their output from the bits of X, Y, and Z, in such a manner that if the corresponding bits of X, Y, and Z are independent and unbiased, then each bit of G(X,Y,Z), H(X,Y,Z), and I(X,Y,Z) will be independent and unbiased. Note that the function H is the bit-wise "xor" or "parity" function of its inputs.

This step uses a 64-element table T[1 ... 64] constructed from the sine function. Let T[i] denote the i-th element of the table, which is equal to the integer part of 4294967296 times abs(sin(i)), where i is in radians. The elements of the table are given in the appendix.

  Do the following:

  /* Process each 16-word block. */
  For i = 0 to N/16-1 do

    /* Copy block i into X. */

For j = 0 to 15 do

  Set X[j] to M[i*16+j].

end /* of loop on j */

/* Save A as AA, B as BB, C as CC, and D as DD. */

AA = A

BB = B

CC = C

DD = D

/* Round 1. */

/* Let [abcd k s i] denote the operation

   a = b + ((a + F(b,c,d) + X[k] + T[i]) <<< s). */

/* Do the following 16 operations. */

[ABCD 0 7 1] [DABC 1 12 2] [CDAB 2 17 3] [BCDA 3 22 4]

[ABCD 4 7 5] [DABC 5 12 6] [CDAB 6 17 7] [BCDA 7 22 8]

[ABCD 8 7 9] [DABC 9 12 10] [CDAB 10 17 11] [BCDA 11 22 12]

[ABCD 12 7 13] [DABC 13 12 14] [CDAB 14 17 15] [BCDA 15 22 16]

/* Round 2. */

/* Let [abcd k s i] denote the operation

   a = b + ((a + G(b,c,d) + X[k] + T[i]) <<< s). */

/* Do the following 16 operations. */

[ABCD 1 5 17] [DABC 6 9 18] [CDAB 11 14 19] [BCDA 0 20 20]

[ABCD 5 5 21] [DABC 10 9 22] [CDAB 15 14 23] [BCDA 4 20 24]

[ABCD 9 5 25] [DABC 14 9 26] [CDAB 3 14 27] [BCDA 8 20 28]

[ABCD 13 5 29] [DABC 2 9 30] [CDAB 7 14 31] [BCDA 12 20 32]

/* Round 3. */

/* Let [abcd k s t] denote the operation

   a = b + ((a + H(b,c,d) + X[k] + T[i]) <<< s). */

/* Do the following 16 operations. */

[ABCD 5 4 33] [DABC 8 11 34] [CDAB 11 16 35] [BCDA 14 23 36]

[ABCD 1 4 37] [DABC 4 11 38] [CDAB 7 16 39] [BCDA 10 23 40]

[ABCD 13 4 41] [DABC 0 11 42] [CDAB 3 16 43] [BCDA 6 23 44]

[ABCD 9 4 45] [DABC 12 11 46] [CDAB 15 16 47] [BCDA 2 23 48]

/* Round 4. */

/* Let [abcd k s t] denote the operation

   a = b + ((a + I(b,c,d) + X[k] + T[i]) <<< s). */

/* Do the following 16 operations. */

[ABCD 0 6 49] [DABC 7 10 50] [CDAB 14 15 51] [BCDA 5 21 52]

[ABCD 12 6 53] [DABC 3 10 54] [CDAB 10 15 55] [BCDA 1 21 56]

[ABCD 8 6 57] [DABC 15 10 58] [CDAB 6 15 59] [BCDA 13 21 60]

[ABCD 4 6 61] [DABC 11 10 62] [CDAB 2 15 63] [BCDA 9 21 64]

/* Then perform the following additions. (That is increment each

  of the four registers by the value it had before this block

  was started.) */

  A = A + AA

  B = B + BB

  C = C + CC

  D = D + DD

  end /* of loop on i */

3.5 Step 5. Output

The message digest produced as output is A, B, C, D. That is, we begin with the low-order byte of A, and end with the high-order byte of D.

This completes the description of MD5. A reference implementation in C is given in the appendix.

4. Summary

The MD5 message-digest algorithm is simple to implement, and provides a "fingerprint" or message digest of a message of arbitrary length. It is conjectured that the difficulty of coming up with two messages having the same message digest is on the order of 2^64 operations, and that the difficulty of coming up with any message having a given message digest is on the order of 2^128 operations. The MD5 algorithm has been carefully scrutinized for weaknesses. It is, however, a relatively new algorithm and further security analysis is of course justified, as is the case with any new proposal of this sort.

5. Differences Between MD4 and MD5

The following are the differences between MD4 and MD5:

1. A fourth round has been added.

2. Each step now has a unique additive constant.

3. The function g in round 2 was changed from (XY v XZ v YZ) to
   (XZ v Y not(Z)) to make g less symmetric.

4. Each step now adds in the result of the previous step. This promotes a faster "avalanche effect".

5. The order in which input words are accessed in rounds 2 and 3 is changed, to make these patterns less like each other.

6. The shift amounts in each round have been approximately optimized, to yield a faster "avalanche effect." The shifts in different rounds are distinct.

References

[1] Rivest, R., "The MD4 Message Digest Algorithm", RFC 1320, MIT and
    RSA Data Security, Inc., April 1992.

[2] Rivest, R., "The MD4 message digest algorithm", in A.J. Menezes
    and S.A. Vanstone, editors, Advances in Cryptology - CRYPTO '90
    Proceedings, pages 303-311, Springer-Verlag, 1991.

[3] CCITT Recommendation X.509 (1988), "The Directory -Authentication Framework."

APPENDIX A - Reference Implementation

This appendix contains the following files taken from RSAREF: A Cryptographic Toolkit for Privacy-Enhanced Mail:

  global.h -- global header file
  md5.h -- header file for MD5
  md5c.c -- source code for MD5

For more information on RSAREF, send email to <rsaref@rsa.com>.

The appendix also includes the following file:

  mddriver.c -- test driver for MD2, MD4 and MD5

The driver compiles for MD5 by default but can compile for MD2 or MD4 if the symbol MD is defined on the C compiler command line as 2 or 4.

The implementation is portable and should work on many different plaforms. However, it is not difficult to optimize the implementation on particular platforms, an exercise left to the reader. For example, on "little-endian" platforms where the lowest-addressed byte in a 32- bit word is the least significant and there are no alignment restrictions, the call to Decode in MD5Transform can be replaced with a typecast.

A.1 global.h

/* GLOBAL.H - RSAREF types and constants

```
    */

/* PROTOTYPES should be set to one if and only if the compiler supports function argument prototyping. The following makes
PROTOTYPES default to 0 if it has not already been defined with C compiler flags.
    */
#ifndef PROTOTYPES
#define PROTOTYPES 0
#endif

/* POINTER defines a generic pointer type */
typedef unsigned char *POINTER;

/* UINT2 defines a two byte word */
typedef unsigned short int UINT2;

/* UINT4 defines a four byte word */
typedef unsigned long int UINT4;

/* PROTO_LIST is defined depending on how PROTOTYPES is defined above.
If using PROTOTYPES, then PROTO_LIST returns the list, otherwise it
  returns an empty list.
    */
#if PROTOTYPES
#define PROTO_LIST(list) list
#else
#define PROTO_LIST(list) ()
#endif
```

A.2 md5.h

```
/* MD5.H - header file for MD5C.C
    */

/* Copyright (C) 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.
```

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software
or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA DataSecurity, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind. These notices must be retained in any copies of any part of this documentation and/or software.
 */

```
/* MD5 context. */
typedef struct {
  UINT4 state[4];                        /* state (ABCD) */
  UINT4 count[2];        /* number of bits, modulo 2^64 (lsb first) */
  unsigned char buffer[64];              /* input buffer */
} MD5_CTX;

void MD5Init PROTO_LIST ((MD5_CTX *));
void MD5Update PROTO_LIST
  ((MD5_CTX *, unsigned char *, unsigned int));
void MD5Final PROTO_LIST ((unsigned char [16], MD5_CTX *));
```

A.3 md5c.c

```
/* MD5C.C - RSA Data Security, Inc., MD5 message-digest algorithm
 */
```

/* Copyright (C) 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA DataSecurity, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.
 */

```
#include "global.h"
#include "md5.h"
```

```
/* Constants for MD5Transform routine.
 */
```

```
#define S11 7
#define S12 12
#define S13 17
#define S14 22
#define S21 5
#define S22 9
#define S23 14
#define S24 20
#define S31 4
#define S32 11
#define S33 16
#define S34 23
#define S41 6
#define S42 10
#define S43 15
#define S44 21


static void MD5Transform PROTO_LIST ((UINT4 [4], unsigned char [64]));
static void Encode PROTO_LIST
  ((unsigned char *, UINT4 *, unsigned int));
static void Decode PROTO_LIST
  ((UINT4 *, unsigned char *, unsigned int));
static void MD5_memcpy PROTO_LIST ((POINTER, POINTER, unsigned int));
static void MD5_memset PROTO_LIST ((POINTER, int, unsigned int));

static unsigned char PADDING[64] = {
  0x80, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
};

/* F, G, H and I are basic MD5 functions.
 */
#define F(x, y, z) (((x) & (y)) | ((~x) & (z)))
#define G(x, y, z) (((x) & (z)) | ((y) & (~z)))
#define H(x, y, z) ((x) ^ (y) ^ (z))
#define I(x, y, z) ((y) ^ ((x) | (~z)))

/* ROTATE_LEFT rotates x left n bits.
 */
```

```c
#define ROTATE_LEFT(x, n) (((x) << (n)) | ((x) >> (32-(n))))


/* FF, GG, HH, and II transformations for rounds 1, 2, 3, and 4.
Rotation is separate from addition to prevent recomputation.
 */
#define FF(a, b, c, d, x, s, ac) { \
 (a) += F ((b), (c), (d)) + (x) + (UINT4)(ac); \
 (a) = ROTATE_LEFT ((a), (s)); \

 (a) += (b); \
 }
#define GG(a, b, c, d, x, s, ac) { \
 (a) += G ((b), (c), (d)) + (x) + (UINT4)(ac); \
 (a) = ROTATE_LEFT ((a), (s)); \
 (a) += (b); \
 }
#define HH(a, b, c, d, x, s, ac) { \
 (a) += H ((b), (c), (d)) + (x) + (UINT4)(ac); \
 (a) = ROTATE_LEFT ((a), (s)); \
 (a) += (b); \
 }
#define II(a, b, c, d, x, s, ac) { \
 (a) += I ((b), (c), (d)) + (x) + (UINT4)(ac); \
 (a) = ROTATE_LEFT ((a), (s)); \
 (a) += (b); \
 }


/* MD5 initialization. Begins an MD5 operation, writing a new context.
 */
void MD5Init (context)
MD5_CTX *context;                          /* context */
{
 context->count[0] = context->count[1] = 0;
 /* Load magic initialization constants.
*/
 context->state[0] = 0x67452301;
 context->state[1] = 0xefcdab89;
 context->state[2] = 0x98badcfe;
 context->state[3] = 0x10325476;
}
```

```c
/* MD5 block update operation. Continues an MD5 message-digest operation, processing another message block, and updating the context.
 */
void MD5Update (context, input, inputLen)
MD5_CTX *context;                              /* context */
unsigned char *input;                 /* input block */
unsigned int inputLen;            /* length of input block */
{
  unsigned int i, index, partLen;

  /* Compute number of bytes mod 64 */
  index = (unsigned int)((context->count[0] >> 3) & 0x3F);

  /* Update number of bits */
  if ((context->count[0] += ((UINT4)inputLen << 3))

   < ((UINT4)inputLen << 3))
 context->count[1]++;
  context->count[1] += ((UINT4)inputLen >> 29);

  partLen = 64 - index;

  /* Transform as many times as possible.
*/
  if (inputLen >= partLen) {
MD5_memcpy
   ((POINTER)&context->buffer[index], (POINTER)input, partLen);
 MD5Transform (context->state, context->buffer);

 for (i = partLen; i + 63 < inputLen; i += 64)
   MD5Transform (context->state, &input[i]);

 index = 0;
  }
  else
 i = 0;

  /* Buffer remaining input */
  MD5_memcpy
 ((POINTER)&context->buffer[index], (POINTER)&input[i],
```

```
    inputLen-i);
}

/* MD5 finalization. Ends an MD5 message-digest operation, writing the message digest and zeroizing the context.
 */
void MD5Final (digest, context)
unsigned char digest[16];                    /* message digest */
MD5_CTX *context;                            /* context */
{
  unsigned char bits[8];
  unsigned int index, padLen;

  /* Save number of bits */
  Encode (bits, context->count, 8);

  /* Pad out to 56 mod 64.
*/
  index = (unsigned int)((context->count[0] >> 3) & 0x3f);
  padLen = (index < 56) ? (56 - index) : (120 - index);
  MD5Update (context, PADDING, padLen);

  /* Append length (before padding) */
  MD5Update (context, bits, 8);

  /* Store state in digest */
  Encode (digest, context->state, 16);

  /* Zeroize sensitive information.
*/
  MD5_memset ((POINTER)context, 0, sizeof (*context));
}

/* MD5 basic transformation. Transforms state based on block.
 */
static void MD5Transform (state, block)
UINT4 state[4];
unsigned char block[64];
{
  UINT4 a = state[0], b = state[1], c = state[2], d = state[3], x[16];
```

Decode (x, block, 64);

```
/* Round 1 */
FF (a, b, c, d, x[ 0], S11, 0xd76aa478); /* 1 */
FF (d, a, b, c, x[ 1], S12, 0xe8c7b756); /* 2 */
FF (c, d, a, b, x[ 2], S13, 0x242070db); /* 3 */
FF (b, c, d, a, x[ 3], S14, 0xc1bdceee); /* 4 */
FF (a, b, c, d, x[ 4], S11, 0xf57c0faf); /* 5 */
FF (d, a, b, c, x[ 5], S12, 0x4787c62a); /* 6 */
FF (c, d, a, b, x[ 6], S13, 0xa8304613); /* 7 */
FF (b, c, d, a, x[ 7], S14, 0xfd469501); /* 8 */
FF (a, b, c, d, x[ 8], S11, 0x698098d8); /* 9 */
FF (d, a, b, c, x[ 9], S12, 0x8b44f7af); /* 10 */
FF (c, d, a, b, x[10], S13, 0xffff5bb1); /* 11 */
FF (b, c, d, a, x[11], S14, 0x895cd7be); /* 12 */
FF (a, b, c, d, x[12], S11, 0x6b901122); /* 13 */
FF (d, a, b, c, x[13], S12, 0xfd987193); /* 14 */
FF (c, d, a, b, x[14], S13, 0xa679438e); /* 15 */
FF (b, c, d, a, x[15], S14, 0x49b40821); /* 16 */


/* Round 2 */
GG (a, b, c, d, x[ 1], S21, 0xf61e2562); /* 17 */
GG (d, a, b, c, x[ 6], S22, 0xc040b340); /* 18 */
GG (c, d, a, b, x[11], S23, 0x265e5a51); /* 19 */
GG (b, c, d, a, x[ 0], S24, 0xe9b6c7aa); /* 20 */
GG (a, b, c, d, x[ 5], S21, 0xd62f105d); /* 21 */
GG (d, a, b, c, x[10], S22,  0x2441453); /* 22 */
GG (c, d, a, b, x[15], S23, 0xd8a1e681); /* 23 */
GG (b, c, d, a, x[ 4], S24, 0xe7d3fbc8); /* 24 */
GG (a, b, c, d, x[ 9], S21, 0x21e1cde6); /* 25 */
GG (d, a, b, c, x[14], S22, 0xc33707d6); /* 26 */
GG (c, d, a, b, x[ 3], S23, 0xf4d50d87); /* 27 */
GG (b, c, d, a, x[ 8], S24, 0x455a14ed); /* 28 */
GG (a, b, c, d, x[13], S21, 0xa9e3e905); /* 29 */
GG (d, a, b, c, x[ 2], S22, 0xfcefa3f8); /* 30 */
GG (c, d, a, b, x[ 7], S23, 0x676f02d9); /* 31 */
GG (b, c, d, a, x[12], S24, 0x8d2a4c8a); /* 32 */


/* Round 3 */
HH (a, b, c, d, x[ 5], S31, 0xfffa3942); /* 33 */
```

```
HH (d, a, b, c, x[ 8], S32, 0x8771f681); /* 34 */
HH (c, d, a, b, x[11], S33, 0x6d9d6122); /* 35 */
HH (b, c, d, a, x[14], S34, 0xfde5380c); /* 36 */
HH (a, b, c, d, x[ 1], S31, 0xa4beea44); /* 37 */
HH (d, a, b, c, x[ 4], S32, 0x4bdecfa9); /* 38 */
HH (c, d, a, b, x[ 7], S33, 0xf6bb4b60); /* 39 */
HH (b, c, d, a, x[10], S34, 0xbebfbc70); /* 40 */
HH (a, b, c, d, x[13], S31, 0x289b7ec6); /* 41 */
HH (d, a, b, c, x[ 0], S32, 0xeaa127fa); /* 42 */
HH (c, d, a, b, x[ 3], S33, 0xd4ef3085); /* 43 */
HH (b, c, d, a, x[ 6], S34,  0x4881d05); /* 44 */
HH (a, b, c, d, x[ 9], S31, 0xd9d4d039); /* 45 */
HH (d, a, b, c, x[12], S32, 0xe6db99e5); /* 46 */
HH (c, d, a, b, x[15], S33, 0x1fa27cf8); /* 47 */
HH (b, c, d, a, x[ 2], S34, 0xc4ac5665); /* 48 */


/* Round 4 */
II (a, b, c, d, x[ 0], S41, 0xf4292244); /* 49 */
II (d, a, b, c, x[ 7], S42, 0x432aff97); /* 50 */
II (c, d, a, b, x[14], S43, 0xab9423a7); /* 51 */
II (b, c, d, a, x[ 5], S44, 0xfc93a039); /* 52 */
II (a, b, c, d, x[12], S41, 0x655b59c3); /* 53 */
II (d, a, b, c, x[ 3], S42, 0x8f0ccc92); /* 54 */
II (c, d, a, b, x[10], S43, 0xffeff47d); /* 55 */
II (b, c, d, a, x[ 1], S44, 0x85845dd1); /* 56 */
II (a, b, c, d, x[ 8], S41, 0x6fa87e4f); /* 57 */
II (d, a, b, c, x[15], S42, 0xfe2ce6e0); /* 58 */
II (c, d, a, b, x[ 6], S43, 0xa3014314); /* 59 */
II (b, c, d, a, x[13], S44, 0x4e0811a1); /* 60 */
II (a, b, c, d, x[ 4], S41, 0xf7537e82); /* 61 */
II (d, a, b, c, x[11], S42, 0xbd3af235); /* 62 */
II (c, d, a, b, x[ 2], S43, 0x2ad7d2bb); /* 63 */
II (b, c, d, a, x[ 9], S44, 0xeb86d391); /* 64 */


state[0] += a;
state[1] += b;
state[2] += c;
state[3] += d;


/* Zeroize sensitive information.
```

```
*/
  MD5_memset ((POINTER)x, 0, sizeof (x));
}

/* Encodes input (UINT4) into output (unsigned char). Assumes len is a multiple of 4.
 */
static void Encode (output, input, len)
unsigned char *output;
UINT4 *input;
unsigned int len;
{
  unsigned int i, j;

  for (i = 0, j = 0; j < len; i++, j += 4) {
 output[j] = (unsigned char)(input[i] & 0xff);
 output[j+1] = (unsigned char)((input[i] >> 8) & 0xff);
 output[j+2] = (unsigned char)((input[i] >> 16) & 0xff);
 output[j+3] = (unsigned char)((input[i] >> 24) & 0xff);
  }
}

/* Decodes input (unsigned char) into output (UINT4). Assumes len is a multiple of 4.
 */
static void Decode (output, input, len)
UINT4 *output;
unsigned char *input;
unsigned int len;
{
  unsigned int i, j;

  for (i = 0, j = 0; j < len; i++, j += 4)
 output[i] = ((UINT4)input[j]) | (((UINT4)input[j+1]) << 8) |
  (((UINT4)input[j+2]) << 16) | (((UINT4)input[j+3]) << 24);
}

/* Note: Replace "for loop" with standard memcpy if possible.
 */

static void MD5_memcpy (output, input, len)
POINTER output;
```

```
POINTER input;

unsigned int len;

{

  unsigned int i;


  for (i = 0; i < len; i++)

output[i] = input[i];

}


/* Note: Replace "for loop" with standard memset if possible.

 */

static void MD5_memset (output, value, len)

POINTER output;

int value;

unsigned int len;

{

  unsigned int i;


  for (i = 0; i < len; i++)

 ((char *)output)[i] = (char)value;

}
```

A.4 mddriver.c

```
/* MDDRIVER.C - test driver for MD2, MD4 and MD5

 */


/* Copyright (C) 1990-2, RSA Data Security, Inc. Created 1990. All rights reserved.


RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this

software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.


These notices must be retained in any copies of any part of this documentation and/or software.

 */


/* The following makes MD default to MD5 if it has not already been defined with C compiler flags.

 */

#ifndef MD

#define MD MD5

#endif
```

```c
#include <stdio.h>
#include <time.h>
#include <string.h>
#include "global.h"
#if MD == 2
#include "md2.h"
#endif
#if MD == 4
#include "md4.h"
#endif
#if MD == 5
#include "md5.h"
#endif

/* Length of test block, number of test blocks.
 */
#define TEST_BLOCK_LEN 1000
#define TEST_BLOCK_COUNT 1000

static void MDString PROTO_LIST ((char *));
static void MDTimeTrial PROTO_LIST ((void));
static void MDTestSuite PROTO_LIST ((void));
static void MDFile PROTO_LIST ((char *));
static void MDFilter PROTO_LIST ((void));
static void MDPrint PROTO_LIST ((unsigned char [16]));

#if MD == 2
#define MD_CTX MD2_CTX
#define MDInit MD2Init
#define MDUpdate MD2Update
#define MDFinal MD2Final
#endif
#if MD == 4
#define MD_CTX MD4_CTX
#define MDInit MD4Init
#define MDUpdate MD4Update
#define MDFinal MD4Final
#endif
#if MD == 5
#define MD_CTX MD5_CTX
```

```
#define MDInit MD5Init
#define MDUpdate MD5Update
#define MDFinal MD5Final
#endif

/* Main driver.

Arguments (may be any combination):
 -sstring - digests string
 -t       - runs time trial
 -x       - runs test script
 filename - digests file
 (none)   - digests standard input
 */
int main (argc, argv)
int argc;
char *argv[];
{
  int i;

  if (argc > 1)
 for (i = 1; i < argc; i++)
  if (argv[i][0] == '-' && argv[i][1] == 's')
    MDString (argv[i] + 2);
   else if (strcmp (argv[i], "-t") == 0)
    MDTimeTrial ();
   else if (strcmp (argv[i], "-x") == 0)
    MDTestSuite ();
   else
    MDFile (argv[i]);
  else
 MDFilter ();

  return (0);
}

/* Digests a string and prints the result.
 */
static void MDString (string)
char *string;
```

```c
{
  MD_CTX context;
  unsigned char digest[16];
  unsigned int len = strlen (string);

  MDInit (&context);
  MDUpdate (&context, string, len);
  MDFinal (digest, &context);

  printf ("MD%d (\"%s\") = ", MD, string);
  MDPrint (digest);
  printf ("\n");
}

/* Measures the time to digest TEST_BLOCK_COUNT TEST_BLOCK_LEN-byte blocks.
 */
static void MDTimeTrial ()
{
  MD_CTX context;
  time_t endTime, startTime;
  unsigned char block[TEST_BLOCK_LEN], digest[16];
  unsigned int i;
  printf
("MD%d time trial. Digesting %d %d-byte blocks ...", MD,
 TEST_BLOCK_LEN, TEST_BLOCK_COUNT);

  /* Initialize block */
  for (i = 0; i < TEST_BLOCK_LEN; i++)
block[i] = (unsigned char)(i & 0xff);

  /* Start timer */
  time (&startTime);

  /* Digest blocks */
  MDInit (&context);
  for (i = 0; i < TEST_BLOCK_COUNT; i++)
MDUpdate (&context, block, TEST_BLOCK_LEN);
  MDFinal (digest, &context);

  /* Stop timer */
```

```c
  time (&endTime);

  printf (" done\n");
  printf ("Digest = ");
  MDPrint (digest);
  printf ("\nTime = %ld seconds\n", (long)(endTime-startTime));
  printf
("Speed = %ld bytes/second\n",
  (long)TEST_BLOCK_LEN * (long)TEST_BLOCK_COUNT/(endTime-startTime));
}

/* Digests a reference suite of strings and prints the results.
 */
static void MDTestSuite ()
{
  printf ("MD%d test suite:\n", MD);

  MDString ("");
  MDString ("a");
  MDString ("abc");
  MDString ("message digest");
  MDString ("abcdefghijklmnopqrstuvwxyz");
  MDString
("ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789");
  MDString
("1234567890123456789012345678901234567890\
12345678901234567890123456789012345678901234567890");
}

/* Digests a file and prints the result.
*/
static void MDFile (filename)
char *filename;
{
  FILE *file;
  MD_CTX context;
  int len;
  unsigned char buffer[1024], digest[16];

  if ((file = fopen (filename, "rb")) == NULL)
```

```c
      printf ("%s can't be opened\n", filename);

  else {
  MDInit (&context);
  while (len = fread (buffer, 1, 1024, file))
    MDUpdate (&context, buffer, len);
  MDFinal (digest, &context);

  fclose (file);

  printf ("MD%d (%s) = ", MD, filename);
  MDPrint (digest);
  printf ("\n");
   }
}

/* Digests the standard input and prints the result.
 */
static void MDFilter ()
{
  MD_CTX context;
  int len;
  unsigned char buffer[16], digest[16];

  MDInit (&context);
  while (len = fread (buffer, 1, 16, stdin))
  MDUpdate (&context, buffer, len);
  MDFinal (digest, &context);

  MDPrint (digest);
  printf ("\n");
}

/* Prints a message digest in hexadecimal.
 */
static void MDPrint (digest)
unsigned char digest[16];
{
  unsigned int i;
```

```
 for (i = 0; i < 16; i++)
printf ("%02x", digest[i]);
}
```

A.5 Test suite

The MD5 test suite (driver option "-x") should print the following
results:

MD5 test suite:

MD5 ("") = d41d8cd98f00b204e9800998ecf8427e

MD5 ("a") = 0cc175b9c0f1b6a831c399e269772661

MD5 ("abc") = 900150983cd24fb0d6963f7d28e17f72

MD5 ("message digest") = f96b697d7cb7938d525a2f31aaf161d0

MD5 ("abcdefghijklmnopqrstuvwxyz") = c3fcd3d76192e4007dfb496cca67e13b

MD5 ("ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789") =
d174ab98d277d9f5a5611c2c9f419d9f

MD5 ("123456789012345678901234567890123456789012345678901234567890123456
78901234567890") = 57edf4a22be3c955ac49da2e2107b67a

Security Considerations

The level of security discussed in this memo is considered to be sufficient for implementing very high security hybrid digital-
signature schemes based on MD5 and a public-key cryptosystem.

Author's Address

Ronald L. Rivest
Massachusetts Institute of Technology
Laboratory for Computer Science
NE43-324
545 Technology Square
Cambridge, MA 02139-1986

Phone: (617) 253-5880
EMail: *rivest@theory.lcs.mit.edu*

Appendix T – SOFTWARE OPC

OPC Foundation license agreement

The following License Agreements are covered below:

OPC Unified Architecture (UA)

OPC Classic (COM)

OPC .NET 3.0 (Formerly Xi)

==

The Following agreement applies to all UA Specifications:

==

--> AGREEMENT OF USE <--

COPYRIGHT RESTRICTIONS

Copyright © OPC Foundation, Inc.

Any unauthorized use of this specification may violate copyright laws, trademark laws, and communications regulations and statutes. This document contains information which is protected by copyright. All Rights Reserved. No part of this work covered by copyright herein may be reproduced or used in any form or by any means--graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems--without permission of the copyright owner.

OPC Foundation members and non-members are prohibited from copying and redistributing this specification. All copies must be obtained on an individual basis, directly from the OPC Foundation Web site

http://www.opcfoundation.org.

PATENTS

The attention of adopters is directed to the possibility that compliance with or adoption of OPC specifications may require use of an invention covered by patent rights. OPC shall not be responsible for identifying patents for which a license may be required by any OPC specification, or for conducting legal inquiries into the legal validity or scope of those patents that are brought to its attention. OPC specifications are prospective and advisory only. Prospective users are responsible for protecting themselves against liability for infringement of patents.

WARRANTY AND LIABILITY DISCLAIMERS

WHILE THIS PUBLICATION IS BELIEVED TO BE ACCURATE, IT IS PROVIDED "AS IS" AND MAY CONTAIN ERRORS OR MISPRINTS. THE OPC FOUDATION MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, WITH REGARD TO THIS PUBLICATION, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF TITLE OR OWNERSHIP, IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE. IN NO EVENT SHALL THE OPC FOUNDATION BE LIABLE FOR ERRORS CONTAINED HEREIN OR FOR DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, RELIANCE OR COVER DAMAGES, INCLUDING LOSS OF PROFITS, REVENUE, DATA OR USE, INCURRED BY ANY USER OR ANY THIRD PARTY IN CONNECTION WITH THE

FURNISHING, PERFORMANCE, OR USE OF THIS MATERIAL, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

The entire risk as to the quality and performance of software developed using this specification is borne by you.

RESTRICTED RIGHTS LEGEND

This Specification is provided with Restricted Rights. Use, duplication or disclosure by the U.S. government is subject to restrictions as set forth in (a) this Agreement pursuant to DFARs 227.7202-3(a); (b) subparagraph (c)(1)(i) of the Rights in Technical Data and Computer Software clause at DFARs 252.227-7013; or (c) the Commercial Computer Software Restricted Rights clause at FAR 52.227-19 subdivision (c)(1) and (2), as applicable. Contractor / manufacturer are the OPC Foundation,. 16101 N. 82nd Street, Suite 3B, Scottsdale, AZ, 85260-1830

COMPLIANCE

The OPC Foundation shall at all times be the sole entity that may authorize developers, suppliers and sellers of hardware and software to use certification marks, trademarks or other special designations to indicate compliance with these materials. Products developed using this specification may claim compliance or conformance with this specification if and only if the software satisfactorily meets the certification requirements set by the OPC Foundation. Products that do not meet these requirements may claim only that the product was based on this specification and must not claim compliance or conformance with this specification.

TRADEMARKS

Most computer and software brand names have trademarks or registered trademarks. The individual trademarks have not been listed here.

GENERAL PROVISIONS

Should any provision of this Agreement be held to be void, invalid, unenforceable or illegal by a court, the validity and enforceability of the other provisions shall not be affected thereby.

This Agreement shall be governed by and construed under the laws of the State of Minnesota, excluding its choice or law rules.

This Agreement embodies the entire understanding between the parties with respect to, and supersedes any prior understanding or agreement (oral or written) relating to, this specification.

ISSUE REPORTING

The OPC Foundation strives to maintain the highest quality standards for its published specifications, hence they undergo constant review and refinement. Readers are encouraged to report any issues and view any existing errata here:

http://www.opcfoundation.org/errata

===

OPC UA CODE DELIVERABLE LICENSES

===

An overview of the OPC Unified Architecture Licensing scheme can be found here:

http://opcfoundation.org/License

All binaries and documentation files are subject to the term of the "OPC Redistributables License Version 1.00".

The complete license agreement can be found here:
http://opcfoundation.org/License/Redistributables/1.00/

All source files are subject to one of

OPC Foundation MIT License Version 1.00
OPC Reciprocal Community License ("RCL") Version 1.00
OPC Reciprocal Community Binary License ("RCBL") Version 1.00

The complete license agreements can be found here:

http://opcfoundation.org/License/MIT/1.00/
http://opcfoundation.org/License/RCL/1.00/
http://opcfoundation.org/License/RCBL/1.00/

The applicable license agreement is declared at the top of each source file.

If a declaration is missing from a source file then the file is subject to the OPC Reciprocal Community Binary License ("RCBL") Version 1.00.

==
OPC REDISTRIBUTABLES LICENSE 1.00
==

OPC FOUNDATION SOFTWARE LICENSE TERMS

OPC FOUNDATION REDISTRIBUTABLES

These license terms are an agreement between the OPC Foundation and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any OPC Foundation

* updates,

* supplements,

* Internet-based services, and

* support services

for this software, unless other terms accompany those items. If so, those terms apply.

BY USING THE SOFTWARE, YOU ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWARE.

If you comply with these license terms, you have the rights below.

1.   INSTALLATION AND USE RIGHTS.

a.	Installation and Use. You may install and use any number of copies of the software on your devices.

b.	Included OPC Foundation Programs. The software may contains other OPC Foundation programs. The license terms with those programs apply to your use of them.

2.	ADDITIONAL LICENSING REQUIREMENTS AND/OR USE RIGHTS.

a.	Distributable Code. The software contains code that you are permitted to distribute in programs you develop if you comply with the terms below.

i.	Right to Use and Distribute. The code and text files listed below are "Distributable Code."

* REDIST.TXT Files. You may copy and distribute the object code form of code listed in REDIST.TXT files.

* Sample Code. You may modify, copy, and distribute the source and object code form of code marked as "sample", as well as those marked as follows:

[applicable file directories go here]

* Third Party Distribution. You may permit distributors of your programs to copy and distribute the Distributable Code as part of those programs.

ii.	Distribution Requirements. For any Distributable Code you distribute, you must

* add significant primary functionality to it in your programs;

* require distributors and external end users to agree to terms that protect it at least as much as this agreement;

* display your valid copyright notice on your programs; and

* indemnify, defend, and hold harmless the OPC Foundation from any claims, including attorneys' fees, related to the distribution or use of your programs.

iii.	Distribution Restrictions. You may not

* alter any copyright, trademark or patent notice in the Distributable Code;

* use the OPC Foundation's trademarks in your programs' names or in a way that suggests your programs come from or are endorsed by the OPC Foundation;

* include Distributable Code in malicious, deceptive or unlawful programs; or

* modify or distribute the source code of any Distributable Code so that any part of it becomes subject to an Excluded License. An Excluded License is one that requires, as a condition of use, modification or distribution, that

* the code be disclosed or distributed in source code form; or

* others have the right to modify it.

3.	SCOPE OF LICENSE. The software is licensed, not sold. This agreement only gives you some rights to use the software. The OPC Foundation reserves all other rights. Unless applicable law gives you more rights despite this limitation, you may use the software only as expressly permitted in this agreement. In doing so, you must comply with any technical limitations in the software that only allow you to use it in certain ways. You may not

* disclose the results of any benchmark tests of the software to any third party without OPC Foundation's prior written approval;

* work around any technical limitations in the software;

* reverse engineer, decompile or disassemble the software, except and only to the extent that applicable law expressly permits, despite this limitation;

* make more copies of the software than specified in this agreement or allowed by applicable law, despite this limitation;

* publish the software for others to copy;

* rent, lease or lend the software; or

4.	BACKUP COPY. You may make one backup copy of the software. You may use it only to reinstall the software.

5.	DOCUMENTATION. Any person that has valid access to your computer or internal network may copy and use the documentation for your internal, reference purposes.

6.	EXPORT RESTRICTIONS. The software is subject to United States export laws and regulations. You must comply with all domestic and international export laws and regulations that apply to the software. These laws include restrictions on destinations, end users and end use.

7.	SUPPORT SERVICES. Because this software is "as is," we may not provide support services for it.

8.	ENTIRE AGREEMENT. This agreement, and the terms for supplements, updates, Internet-based services and support services that you use, are the entire agreement for the software and support services.

9.	APPLICABLE LAW.

a.	United States. If you acquired the software in the United States, Minnesota state law governs the interpretation of this agreement and applies to claims for breach of it, regardless of conflict of laws principles. The laws of the state where you live govern all other claims, including claims under state consumer protection laws, unfair competition laws, and in tort.

b.	Outside the United States. If you acquired the software in any other country, the laws of that country apply.

10.	LEGAL EFFECT. This agreement describes certain legal rights. You may have other rights under the laws of your country. You may also have rights with respect to the party from whom you acquired the software. This agreement does not change your rights under the laws of your country if the laws of your country do not permit it to do so.

11.	DISCLAIMER OF WARRANTY. THE SOFTWARE IS LICENSED "AS-IS." YOU BEAR THE RISK OF USING IT. THS OPC FOUNDATION GIVES NO EXPRESS WARRANTIES, GUARANTEES OR CONDITIONS. YOU MAY HAVE ADDITIONAL CONSUMER RIGHTS UNDER YOUR LOCAL LAWS WHICH THIS AGREEMENT CANNOT CHANGE. TO THE EXTENT PERMITTED UNDER YOUR LOCAL LAWS, THE OPC FOUNDATION EXCLUDES THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

12.	LIMITATION ON AND EXCLUSION OF REMEDIES AND DAMAGES. YOU CAN RECOVER FROM THE OPC FOUNDATION AND ITS SUPPLIERS ONLY DIRECT DAMAGES UP TO U.S. $5.00. YOU CANNOT RECOVER ANY OTHER DAMAGES, INCLUDING CONSEQUENTIAL, LOST PROFITS, SPECIAL, INDIRECT OR INCIDENTAL DAMAGES.

This limitation applies to

* anything related to the software, services, content (including code) on third party Internet sites, or third party programs; and

* claims for breach of contract, breach of warranty, guarantee or condition, strict liability, negligence, or other tort to the extent permitted by applicable law.

It also applies even if the OPC Foundation knew or should have known about the possibility of the damages. The above limitation or exclusion may not apply to you because your country may not allow the exclusion or limitation of incidental, consequential or other damages.

Please note: As this software is distributed in Quebec, Canada, some of the clauses in this agreement are provided below in French.

Remarque : Ce logiciel étant distribué au Québec, Canada, certaines des clauses dans ce contrat sont fournies ci-dessous en français.

EXONÉRATION DE GARANTIE. Le logiciel visé par une licence est offert « tel quel ». Toute utilisation de ce logiciel est à votre seule risque et péril. OPC Foundation n'accorde aucune autre garantie expresse. Vous pouvez bénéficier de droits additionnels en vertu du droit local sur la protection des consommateurs, que ce contrat ne peut modifier. La ou elles sont permises par le droit locale, les garanties implicites de qualité marchande, d'adéquation à un usage particulier et d'absence de contrefaçon sont exclues.

LIMITATION DES DOMMAGES-INTÉRÊTS ET EXCLUSION DE RESPONSABILITÉ POUR LES DOMMAGES. Vous pouvez obtenir de OPC Foundation et de ses fournisseurs une indemnisation en cas de dommages directs uniquement à hauteur de 5,00 $ US. Vous ne pouvez prétendre à aucune indemnisation pour les autres dommages, y compris les dommages spéciaux, indirects ou accessoires et pertes de bénéfices.

Cette limitation concerne :

* tout ce qui est relié au logiciel, aux services ou au contenu (y compris le code) figurant sur des sites Internet tiers ou dans des programmes tiers ; et

* les réclamations au titre de violation de contrat ou de garantie, ou au titre de responsabilité stricte, de négligence ou d'une autre faute dans la limite autorisée par la loi en vigueur.

Elle s'applique également, même si OPC Foundation connaissait ou devrait connaître l'éventualité d'un tel dommage. Si votre pays n'autorise pas l'exclusion ou la limitation de responsabilité pour les dommages indirects, accessoires ou de quelque nature que ce soit, il se peut que la limitation ou l'exclusion ci-dessus ne s'appliquera pas à votre égard.

EFFET JURIDIQUE. Le présent contrat décrit certains droits juridiques. Vous pourriez avoir d'autres droits prévus par les lois de votre pays. Le présent contrat ne modifie pas les droits que vous confèrent les lois de votre pays si celles-ci ne le permettent pas.

==

RECIPROCAL COMMUNITY LICENSE 1.00 (RCL1.00)

==

Reciprocal Community License (RCL)

Version 1.00, June 24, 2009

Copyright (C) 2008,2009 OPC Foundation, Inc., All Rights Reserved.

PREAMBLE

The Reciprocal Community License (RCL) is based on the concept of reciprocity or, if you prefer, fairness.

The RCL is adapted from the Open Source Reciprocal Public License (RPL) where the "Public" in the Open Source RPL license is replaced by the "Community" in the RCL License. In short, the RPL license grew out of a desire to close loopholes in previous open source licenses, loopholes that allowed parties to acquire open source software and derive financial benefit from it without having to release their improvements or derivatives to the community which enabled them. This occurred any time an entity did not release their application to a "third party". While there is a certain freedom in this model of licensing, it struck the authors of the RPL as being unfair to the open source community at large and to the original authors of the works in particular. After all, bug fixes, extensions, and meaningful and valuable derivatives were not consistently faster, growth and expansion of the overall open source software base.

While you should clearly read and understand the entire license, the essence of the RCL is found in two definitions: "Deploy" and "Required Components".

Regarding deployment, under the RCL your changes, bug fixes, extensions, etc. must be made available to the community when you Deploy in any form -- either internally or to an outside party. Once you start running the software you have to start sharing the software.

Further, under the RCL all derivative work components you author including schemas, scripts, source code, documentation, etc. -- must be shared. You have to share the whole pie, not an isolated slice of it. The authored components you must share are confined to the original module licensed (e.g. SDK, stack, wrapper, proxy, utility, etc.). You do not need to share any additional authored components that you create that utilize the licensed component. This license is meant to be friendly to commercial software vendors that must protect the IP in their code. You are not expected to share your proprietary source code that makes use of the module(s) licensed under this agreement.

The specific terms and conditions of the license are defined in the remainder of this document.

1   LICENSE TERMS

1.1   General; Applicability & Definitions. This Reciprocal Community License Version 1.00 ("License") applies to any programs or other works as well as any and all updates or maintenance releases of said programs or works ("Software") not already covered by this License which the Software copyright holder ("Licensor") makes available containing a License Notice (hereinafter defined) from the Licensor specifying or allowing use or distribution under the terms of this License. As used in this License:

1.2   "Contributor" means any person or entity who created or contributed to the creation of an Extension.

1.3   "Deploy" means to use, Serve, sublicense or distribute Licensed Software other than for Your internal Research and/or Personal Use, and includes without limitation, any and all internal use or distribution of Licensed Software within Your business or organization other than for Research and/or Personal Use, as well as direct or indirect sublicensing or distribution of Licensed Software by You to any third party.

1.4   "Derivative Works" as used in this License is defined under U.S. copyright law.

1.5   "Extensions" means any Modifications, Derivative Works, or Required Components as those terms are defined in this License.

1.6   "License" means this Reciprocal Community License.

1.7   "License Notice" means any notice contained in EXHIBIT A.

1.8   "Licensed Software" means any Software licensed pursuant to this License. Licensed Software also includes all previous Extensions from any Contributor that You receive.

1.9   "Licensor" means the copyright holder of any Software previously not covered by this License who releases the Software under the terms of this License.

1.10   "Modifications" means any additions to or deletions from the substance or structure of (i) a file containing Licensed Software, or (ii) any new file that contains any part of Licensed Software.

1.11   "Original Licensor" means the Licensor that is the copyright holder of the original work. For this license the Original Licensor is always the OPC Foundation.

1.12   "Personal Use" means use of Licensed Software by an individual solely for his or her personal, private and non-commercial purposes. An individual's use of Licensed Software in his or her capacity as an officer, employee, member, independent contractor or agent of a corporation, business or organization (commercial or non-commercial) does not qualify as Personal Use.

1.13   "Required Components" means any text, programs, scripts, schema, interface definitions, control files, or other works created by You which are required by a third party of average skill to successfully install and run Licensed Software containing Your Modifications, or to install and run Your Derivative Works. Required Components by this definition are the supporting works that are necessary to utilize your Modifications and Derivative Works. This does not include your applications and supporting works that utilize the Licensed Software.

1.14   "Research" means investigation or experimentation for the purpose of understanding the nature and limits of the Licensed Software and its potential uses.

1.15   "Serve" means to deliver Licensed Software and/or Your Extensions by means of a computer network to one or more computers for purposes of execution of Licensed Software and/or Your Extensions.

1.16   "Software" means any computer programs or other works as well as any updates or maintenance releases of those programs or works which are distributed publicly by Licensor.

1.17   "Source Code" means the preferred form for making modifications to the Licensed Software and/or Your Extensions, including all modules contained therein, plus any associated text, interface definition files, scripts used to control compilation and installation of an executable program or other components required by a third party of average skill to build a running version of the Licensed Software or Your Extensions.

1.18   "User-Visible Attribution Notice" means any notice contained in EXHIBIT B.

1.19   "You" or "Your" means an individual or a legal entity exercising rights under this License. For legal entities, "You" or "Your" includes any entity which controls, is controlled by, or is under common control with, You, where "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of fifty percent (50%) or more of the outstanding shares or beneficial ownership of such entity.

2.0 Acceptance Of License. You are not required to accept this License since you have not signed it, however nothing else grants you permission to use, copy, distribute, modify, or create derivatives of either the Software or any Extensions created by a Contributor. These actions are prohibited by law if you do not accept this License. Therefore, by performing any of these actions You indicate Your acceptance of this License and Your agreement to be bound by all its terms and conditions. IF YOU DO NOT AGREE WITH ALL THE TERMS AND CONDITIONS OF THIS LICENSE DO NOT USE, MODIFY, CREATE DERIVATIVES, OR DISTRIBUTE THE SOFTWARE. IF IT IS IMPOSSIBLE FOR YOU TO COMPLY WITH ALL THE TERMS AND CONDITIONS OF THIS LICENSE THEN YOU CAN NOT USE, MODIFY, CREATE DERIVATIVES, OR DISTRIBUTE THE SOFTWARE.

3.0 Grant of License From Licensor. Subject to the terms and conditions of this License, Licensor hereby grants You a world-wide, royalty-free, non- exclusive license, subject to Licensor's intellectual property rights, and any third party intellectual property claims derived from the Licensed Software under this License, to do the following:

3.1 Use, reproduce, modify, display, and perform Licensed Software and Your Extensions in both Source Code form or as an executable program. You may also sublicense and distribute Licensed Software and Your Extensions as an executable program. OPC Foundation Corporate Members may also sublicense and distribute Licensed Software and Your Extensions in Source Code form.

3.2 Create Derivative Works (as that term is defined under U.S. copyright law) of Licensed Software.

3.3 Under claims of patents now or hereafter owned or controlled by Licensor, to make, use, have made, and/or otherwise dispose of Licensed Software or portions thereof, but solely to the extent that any such claim is necessary to enable You to make, use, have made, and/or otherwise dispose of Licensed Software or portions thereof.

3.4 Licensor reserves the right to release new versions of the Software with different features, specifications, capabilities, functions, licensing terms, general availability or other characteristics. Title, ownership rights, and intellectual property rights in and to the Licensed Software shall remain in Licensor and/or its Contributors.

4.0 Grant of License From Contributor. By application of the provisions in Section 6 below, each Contributor hereby grants You a world-wide, royalty- free, non-exclusive license, subject to said Contributor's intellectual property rights, and any third party intellectual property claims derived from the Licensed Software under this License, to do the following:

4.1 Use, reproduce, modify, display and perform any Extensions Deployed by such Contributor or portions thereof, in both Source Code form or as an executable program, either on an unmodified basis or as part of Derivative Works. You may also sublicense and distribute Extensions Deployed by such Contributor or portions thereof, as an executable program. OPC Foundation Corporate Members may also sublicense and distribute Extensions Deployed by such Contributor or portions thereof,in Source Code form.

4.2 Under claims of patents now or hereafter owned or controlled by Contributor, to make, use, have made, and/or otherwise dispose of Extensions or portions thereof, but solely to the extent that any such claim is necessary to enable You to make, use, have made, and/or otherwise dispose of Licensed Software or portions thereof.

5.0 Exclusions From License Grant. Nothing in this License shall be deemed to grant any rights to trademarks, copyrights, patents, trade secrets or any other intellectual property of Licensor or any Contributor except as expressly stated herein. Except as expressly stated in Sections 3 and 4, no other patent rights, express or implied, are granted herein. Your Extensions may require additional patent licenses from Licensor or Contributors which each may grant in its sole discretion. No right is granted to the trademarks of Licensor or any Contributor even if such marks are included in the Licensed Software. Nothing in this License shall be interpreted to prohibit Licensor from licensing under different terms from this License any code that Licensor otherwise would have a right to license.

5.1 You expressly acknowledge and agree that although Licensor and each Contributor grants the licenses to their respective portions of the Licensed Software set forth herein, no assurances are provided by Licensor or any Contributor that the Licensed Software does not infringe the patent or other intellectual property rights of any other entity. Licensor and each Contributor disclaim any liability to You for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, You hereby assume sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow You to distribute the Licensed Software, it is Your responsibility to acquire that license before distributing the Licensed Software.

6.0 Your Obligations And Grants. In consideration of, and as an express condition to, the licenses granted to You under this License You hereby agree that any Modifications, Derivative Works, or Required Components (collectively Extensions) that You create or to which You contribute are governed by the terms of this License including, without limitation, Section 4. Any Extensions that You create or to which You contribute must be Deployed under the terms of this License or a future version of this License released under Section 7. You hereby grant to Licensor and all third parties a world-wide, non-exclusive, royalty-free license under those intellectual property rights You own or control to use, reproduce, display, perform, modify, create derivatives, sublicense, and distribute Licensed Software, in any form. Any Extensions You make and Deploy must have a distinct title so as to readily tell any subsequent user or Contributor that the Extensions are by You. You must include a copy of this License or directions on how to obtain a copy with every copy of the Extensions You distribute. You agree not to offer or impose any terms on any Source Code or executable version of the Licensed Software, or its Extensions that alter or restrict the applicable version of this License or the recipients' rights hereunder. Additionally, you herby grant to the Original Licensor the right to use, reproduce, display, perform, modify, create derivatives, sublicense, and distribute Licensed Software, in any form, under the terms of this license and/or any other license terms it sees fit.

6.1 Availability of Source Code. You must make available, under the terms of this License, the Source Code of any Extensions that You Deploy, by uploading the Source Code directly to the website of the Original Licensor. The Source Code for any version that You Deploy must be made available within one (1) month of when you Deploy. You may not charge a fee for any copy of the Source Code

distributed under this Section. At the sole discretion of the Original Licensor, some or all of Your contributed Source Code may be included in a future baseline version released by the Original Licensor.

6.2 Description of Modifications. You must cause any Modifications that You create or to which You contribute to be documented in the Source Code, clearly describing the additions, changes or deletions You made. You must include a prominent statement that the Modifications are derived, directly or indirectly, from the Licensed Software and include the names of the Licensor and any Contributor to the Licensed Software in (i) the Source Code and (ii) in any notice displayed by the Licensed Software You distribute or in related documentation in which You describe the origin or ownership of the Licensed Software. You may not modify or delete any pre-existing copyright notices, change notices or License text in the Licensed Software without written permission of the respective Licensor or Contributor.

6.3 Intellectual Property Matters.

a. Third Party Claims. If You have knowledge that a license to a third party's intellectual property right is required to exercise the rights granted by this License, You must include a human-readable file with Your distribution that describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact.

b. Contributor APIs. If Your Extensions include an application programming interface ("API") and You have knowledge of patent licenses that are reasonably necessary to implement that API, You must also include this information in a human-readable file supplied with Your distribution.

c. Representations. You represent that, except as disclosed pursuant to 6.3(a) above, You believe that any Extensions You distribute are Your original creations and that You have sufficient rights to grant the rights conveyed by this License.

6.4 Required Notices.

a. License Text. You must duplicate this License or instructions on how to acquire a copy in any documentation You provide along with the Source Code of any Extensions You create or to which You contribute, wherever You describe recipients' rights relating to Licensed Software.

b. License Notice. You must duplicate any notice contained in EXHIBIT A (the "License Notice") in each file of the Source Code of any copy You distribute of the Licensed Software and Your Extensions. If You create an Extension, You may add Your name as a Contributor to the Source Code and accompanying documentation along with a description of the contribution. If it is not possible to put the License Notice in a particular Source Code file due to its structure, then You must include such License Notice in a location where a user would be likely to look for such a notice.

c. User-Visible Attribution. You must duplicate any notice contained in EXHIBIT B (the "User-Visible Attribution Notice") in each user-visible display of the Licensed Software and Your Extensions which delineates copyright, ownership, or similar attribution information. If You create an Extension, You may add Your name as a Contributor, and add Your attribution notice, as an equally visible and functional element of any User-Visible Attribution Notice content. To ensure proper attribution, You must also include such User-Visible Attribution Notice in at least one location in the Software documentation where a user would be likely to look for such notice.

6.5 Additional Terms. You may choose to offer, and charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Licensed Software. However, You may do so only on Your own behalf, and not on behalf of the Licensor or any Contributor except as permitted under other agreements between you and Licensor or Contributor. You must make it clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Licensor and every Contributor for any liability plus attorney fees, costs, and related expenses due to any such action or claim incurred by the Licensor or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

6.6 Conflicts With Other Licenses. Where any portion of Your Extensions, by virtue of being Derivative Works of another product or similar circumstance, fall under the terms of another license, the terms of that license should be honored however You must also make Your Extensions available under this License. If the terms of this License continue to conflict with the terms of the other license you may write the Licensor for permission to resolve the conflict in a fashion that remains consistent with the intent of this License. Such permission will be granted at the sole discretion of the Licensor.

7.0 Versions of This License. Licensor may publish from time to time revised versions of the License. Once Licensed Software has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Licensed Software under the terms of any subsequent version of the License published by Licensor. No one other than Licensor has the right to modify the terms applicable to Licensed Software created under this License.

7.1 If You create or use a modified version of this License, which You may do only in order to apply it to software that is not already Licensed Software under this License, You must rename Your license so that it is not confusingly similar to this License, and must make it clear that Your license contains terms that differ from this License. In so naming Your license, You may not use any trademark of Licensor or of any Contributor. Should Your modifications to this License be limited to alteration of a) Section 13.8 solely to modify the legal Jurisdiction or Venue for disputes, b) EXHIBIT A solely to define License Notice text, or c) to EXHIBIT B solely to define a User-Visible Attribution Notice, You may continue to refer to Your License as the Reciprocal Community License or simply the RCL.

8.0 Disclaimer of Warranty. LICENSED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE LICENSED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. FURTHER THERE IS NO WARRANTY MADE AND ALL IMPLIED WARRANTIES ARE DISCLAIMED THAT THE LICENSED SOFTWARE MEETS OR COMPLIES WITH ANY DESCRIPTION OF PERFORMANCE OR OPERATION, SAID COMPATIBILITY AND SUITABILITY BEING YOUR RESPONSIBILITY. LICENSOR DISCLAIMS ANY WARRANTY, IMPLIED OR EXPRESSED, THAT ANY CONTRIBUTOR'S EXTENSIONS MEET ANY STANDARD OF COMPATIBILITY OR DESCRIPTION OF PERFORMANCE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LICENSED SOFTWARE IS WITH YOU. SHOULD LICENSED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (AND NOT THE LICENSOR OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. UNDER THE TERMS OF THIS LICENSOR WILL NOT SUPPORT THIS SOFTWARE AND IS UNDER NO OBLIGATION TO ISSUE UPDATES TO THIS SOFTWARE. LICENSOR HAS NO KNOWLEDGE OF ERRANT CODE OR VIRUS IN THIS SOFTWARE, BUT DOES NOT WARRANT THAT THE SOFTWARE IS FREE FROM SUCH ERRORS OR VIRUSES. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF LICENSED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

9.0 Limitation of Liability. UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL THE LICENSOR, ANY CONTRIBUTOR, OR ANY DISTRIBUTOR OF LICENSED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

10.0 Restricted Rights Legend. This Specification is provided with Restricted Rights. Use, duplication or disclosure by the U.S. government is subject to restrictions as set forth in (a) this Agreement pursuant to DFARs 227.7202-3(a); (b) subparagraph (c)(1)(i) of the Rights in Technical Data and Computer Software clause at DFARs 252.227-7013; or (c) the Commercial Computer Software Restricted Rights clause at FAR 52.227-19 subdivision (c)(1) and (2), as applicable. Contractor / manufacturer are the OPC Foundation,. 16101 N. 82nd Street, Suite 3B, Scottsdale, AZ, 85260-1830

11.0 Responsibility for Claims. As between Licensor and Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License which specifically disclaims warranties and limits any liability of the Licensor. This paragraph is to be used in conjunction with and controlled by the Disclaimer Of Warranties of Section 8, the Limitation Of Damages in Section 9, and the disclaimer against use for High Risk Activities in Section 10. The Licensor has thereby disclaimed all warranties and limited any damages that it is or may be liable for. You agree to work with Licensor and Contributors to distribute such responsibility on an equitable basis consistent with the terms of this License including Sections 8, 9, and 10. Nothing herein is intended or shall be deemed to constitute any admission of liability.

12.0 Termination. This License and all rights granted hereunder will terminate immediately in the event of the circumstances described in Section 13.6 or if applicable law prohibits or restricts You from fully and or specifically complying with Sections 3, 4 and/or 6, or prevents the enforceability of any of those Sections, and You must immediately discontinue any use of Licensed Software.

12.1 Automatic Termination Upon Breach. This License and the rights granted hereunder will terminate automatically if You fail to comply with the terms herein and fail to cure such breach within thirty (30) days of becoming aware of the breach. All sublicenses to

the Licensed Software that are properly granted shall survive any termination of this License. Provisions that, by their nature, must remain in effect beyond the termination of this License, shall survive.

12.2 Termination Upon Assertion of Patent Infringement. If You initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against Licensor or a Contributor (Licensor or Contributor against whom You file such an action is referred to herein as "Respondent") alleging that Licensed Software directly or indirectly infringes any patent, then any and all rights granted by such Respondent to You under Sections 3 or 4 of this License shall terminate prospectively upon sixty (60) days notice from Respondent (the "Notice Period") unless within that Notice Period You either agree in writing (i) to pay Respondent a mutually agreeable reasonably royalty for Your past or future use of Licensed Software made by such Respondent, or (ii) withdraw Your litigation claim with respect to Licensed Software against such Respondent. If within said Notice Period a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Licensor to You under Sections 3 and 4 automatically terminate at the expiration of said Notice Period.

12.3 Reasonable Value of This License. If You assert a patent infringement claim against Respondent alleging that Licensed Software directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by said Respondent under Sections 3 and 4 shall be taken into account in determining the amount or value of any payment or license.

12.4 No Retroactive Effect of Termination. In the event of termination under this Section all end user license agreements (excluding licenses to distributors and resellers) that have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

13.0 Miscellaneous.

13.1 U.S. Government End Users. The Licensed Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Licensed Software with only those rights set forth herein.

13.2 Relationship of Parties. This License will not be construed as creating an agency, partnership, joint venture, or any other form of legal association between or among You, Licensor, or any Contributor, and You will not represent to the contrary, whether expressly, by implication, appearance, or otherwise.

13.3 Independent Development. Nothing in this License will impair Licensor's right to acquire, license, develop, subcontract, market, or distribute technology or products that perform the same or similar functions as, or otherwise compete with, Extensions that You may develop, produce, market, or distribute.

13.4 Consent To Breach Not Waiver. Failure by Licensor or Contributor to enforce any provision of this License will not be deemed a waiver of future enforcement of that or any other provision.

13.5 Severability. This License represents the complete agreement concerning the subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable.

13.6 Inability to Comply Due to Statute or Regulation. If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Licensed Software due to statute, judicial order, or regulation, then You cannot use, modify, or distribute the software.

13.7 Export Restrictions. You may be restricted with respect to downloading or otherwise acquiring, exporting, or reexporting the Licensed Software or any underlying information or technology by United States and other applicable laws and regulations. By downloading or by otherwise obtaining the Licensed Software, You are agreeing to be responsible for compliance with all applicable laws and regulations.

13.8 Arbitration, Jurisdiction & Venue. This License shall be governed by Minnesota law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. You expressly agree that any dispute relating to this License shall be submitted to binding arbitration under the rules then prevailing of the American Arbitration Association. You further agree that Minnesota USA is proper venue and grant such arbitration proceeding jurisdiction as may be appropriate for purposes of resolving any dispute under this License. Judgment upon any award made in arbitration may be entered and enforced in any court of competent jurisdiction. The arbitrator shall award attorney's fees and costs of arbitration to the prevailing party. Should either party find it necessary to enforce its arbitration award or seek specific performance of such award in a civil court of competent jurisdiction, the prevailing party shall be entitled to reasonable attorney's fees and costs. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. You and Licensor expressly waive any rights to a jury trial in any

litigation concerning Licensed Software or this License. Any law or regulation that provides that the language of a contract shall be construed against the drafter shall not apply to this License.

13.9 Entire Agreement. This License constitutes the entire agreement between the parties with respect to the subject matter hereof.

EXHIBIT A

The License Notice below must appear in each file of the Source Code of any copy You distribute of the Licensed Software or any Extensions thereto:

Unless explicitly acquired and licensed from Licensor under another license, the contents of this file are subject to the Reciprocal Community License ("RCL") Version 0.9, or subsequent versions as allowed by the RCL, and You may not copy or use this file in either source code or executable form, except in compliance with the terms and conditions of the RCL.

All software distributed under the RCL is provided strictly on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, AND LICENSOR HEREBY DISCLAIMS ALL SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, OR NON-INFRINGEMENT. See the RCL for specific language governing rights and limitations under the RCL.

EXHIBIT B

The User-Visible Attribution Notice below, when provided, must appear in each user-visible display as defined in Section 6.4 (c):

"Portions copyright © by OPC Foundation, Inc. and licensed under the Reciprocal Community License (RCL)"

===

RECIPROCAL COMMUNITY BINARY LICENSE 1.00 (RCBL1.00)

===

Reciprocal Community Binary License (RCBL)

Version 1.00, March 26, 2009

Copyright (C) 2008, 2009 OPC Foundation, Inc., All Rights Reserved.

PREAMBLE

The Reciprocal Community Binary License (RCBL) is based on the concept of reciprocity or, if you prefer, fairness.

The RCBL is similar to the Reciprocal Community License with the added restriction that only the Original Licensor may distribute Source Code. All other Licensors may only distribute the licensed components in compiled binary form, including any Contributed code authored directly by the Licensor.

While you should clearly read and understand the entire license, the essence of the RCBL is found in two definitions: "Deploy" and "Required Components".

Regarding deployment, under the RCBL your changes, bug fixes, extensions, etc. must be made available to the community when you Deploy in any form -- either internally or to an outside party. Once you start running the software you have to start sharing the software.

Further, under the RCBL all derivative work components you author including schemas, scripts, source code, documentation, etc. -- must be shared. You have to share the whole pie, not an isolated slice of it. The authored components you must share are confined to the original module licensed (e.g. SDK, stack, wrapper, proxy, utility, etc.). You do not need to share any additional authored components that you create that utilize the licensed component. This license is meant to be friendly to commercial software vendors that must protect the IP in their code. You are not expected to share your proprietary source code that makes use of the module(s) licensed under this agreement.

The specific terms and conditions of the license are defined in the remainder of this document.

2   LICENSE TERMS

2.1   General; Applicability & Definitions. This Reciprocal Community Binary License Version 1.00 ("License") applies to any programs or other works as well as any and all updates or maintenance releases of said programs or works ("Software") not already covered by this License which the Software copyright holder ("Licensor") makes available containing a License Notice (hereinafter

defined) from the Licensor specifying or allowing use or distribution under the terms of this License. As used in this License:

2.2   "Contributor" means any person or entity who created or contributed to the creation of an Extension.

2.3   "Deploy" means to use, Serve, sublicense or distribute Licensed Software other than for Your internal Research and/or Personal Use, and includes without limitation, any and all internal use or distribution of Licensed Software within Your business or organization other than for Research and/or Personal Use, as well as direct or indirect sublicensing or distribution of Licensed Software by You to any third party.

2.4   "Derivative Works" as used in this License is defined under U.S. copyright law.

2.5   "Extensions" means any Modifications, Derivative Works, or Required Components as those terms are defined in this License.

2.6   "License" means this Reciprocal Community Binary License.

2.7   "License Notice" means any notice contained in EXHIBIT A.

2.8   "Licensed Software" means any Software licensed pursuant to this License. Licensed Software also includes all previous Extensions from any Contributor that You receive.

2.9   "Licensor" means the copyright holder of any Software previously not covered by this License who releases the Software under the terms of this License.

2.10   "Modifications" means any additions to or deletions from the substance or structure of (i) a file containing Licensed Software, or (ii) any new file that contains any part of Licensed Software.

2.11   "Original Licensor" means the Licensor that is the copyright holder of the original work. For this license the Original Licensor is always the OPC Foundation.

2.12   "Personal Use" means use of Licensed Software by an individual solely for his or her personal, private and non-commercial purposes. An individual's use of Licensed Software in his or her capacity as an officer, employee, member, independent contractor or agent of a corporation, business or organization (commercial or non-commercial) does not qualify as Personal Use.

2.13   "Required Components" means any text, programs, scripts, schema, interface definitions, control files, or other works created by You which are required by a third party of average skill to successfully install and run Licensed Software containing Your Modifications, or to install and run Your Derivative Works. Required Components by this definition are the supporting works that are necessary to utilize your Modifications and Derivative Works. This does not include your applications and supporting works that utilize the Licensed Software.

2.14   "Research" means investigation or experimentation for the purpose of understanding the nature and limits of the Licensed Software and its potential uses.

2.15   "Serve" means to deliver Licensed Software and/or Your Extensions by means of a computer network to one or more computers for purposes of execution of Licensed Software and/or Your Extensions.

2.16   "Software" means any computer programs or other works as well as any updates or maintenance releases of those programs or works which are distributed publicly by Licensor.

2.17   "Source Code" means the preferred form for making modifications to the Licensed Software and/or Your Extensions, including all modules contained therein, plus any associated text, interface definition files, scripts used to control compilation and installation of an executable program or other components required by a third party of average skill to build a running version of the Licensed Software or Your Extensions.

2.18   "User-Visible Attribution Notice" means any notice contained in EXHIBIT B.

2.19   "You" or "Your" means an individual or a legal entity exercising rights under this License. For legal entities, "You" or "Your" includes any entity which controls, is controlled by, or is under common control with, You, where "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of fifty percent (50%) or more of the outstanding shares or beneficial ownership of such entity.

2.0 Acceptance Of License. You are not required to accept this License since you have not signed it, however nothing else grants you permission to use, copy, distribute, modify, or create derivatives of either the Software or any Extensions created by a Contributor. These actions are prohibited by law if you do not accept this License. Therefore, by performing any of these actions You indicate Your acceptance of this License and Your agreement to be bound by all its terms and conditions. IF YOU DO NOT AGREE WITH

ALL THE TERMS AND CONDITIONS OF THIS LICENSE DO NOT USE, MODIFY, CREATE DERIVATIVES, OR DISTRIBUTE THE SOFTWARE. IF IT IS IMPOSSIBLE FOR YOU TO COMPLY WITH ALL THE TERMS AND CONDITIONS OF THIS LICENSE THEN YOU CAN NOT USE, MODIFY, CREATE DERIVATIVES, OR DISTRIBUTE THE SOFTWARE.

3.0 Grant of License From Licensor. Subject to the terms and conditions of this License, Licensor hereby grants You a world-wide, royalty-free, non- exclusive license, subject to Licensor's intellectual property rights, and any third party intellectual property claims derived from the Licensed Software under this License, to do the following:

3.1 Use, reproduce, modify, display, perform, sublicense and distribute Licensed Software and Your Extensions in binary form only (e.g. as an executable program). UNDER NO CIRCUMSTANCES SHALL THE ORIGINAL WORK OR EXTENSIONS BE SUBLICENSED OR DISTRIBUTED IN SOURCE CODE FORM.

3.2 Create Derivative Works (as that term is defined under U.S. copyright law) of Licensed Software.

3.3 Under claims of patents now or hereafter owned or controlled by Licensor, to make, use, have made, and/or otherwise dispose of Licensed Software or portions thereof, but solely to the extent that any such claim is necessary to enable You to make, use, have made, and/or otherwise dispose of Licensed Software or portions thereof.

3.4 Licensor reserves the right to release new versions of the Software with different features, specifications, capabilities, functions, licensing terms, general availability or other characteristics. Title, ownership rights, and intellectual property rights in and to the Licensed Software shall remain in Licensor and/or its Contributors.

4.0 Grant of License From Contributor. By application of the provisions in Section 6 below, each Contributor hereby grants You a world-wide, royalty- free, non-exclusive license, subject to said Contributor's intellectual property rights, and any third party intellectual property claims derived from the Licensed Software under this License, to do the following:

4.1 Use, reproduce, modify, display, perform, sublicense and distribute any Extensions Deployed by such Contributor or portions thereof, in both Source Code form or as an executable program, either on an unmodified basis or as part of Derivative Works.

4.2 Under claims of patents now or hereafter owned or controlled by Contributor, to make, use, have made, and/or otherwise dispose of Extensions or portions thereof, but solely to the extent that any such claim is necessary to enable You to make, use, have made, and/or otherwise dispose of Licensed Software or portions thereof.

5.0 Exclusions From License Grant. Nothing in this License shall be deemed to grant any rights to trademarks, copyrights, patents, trade secrets or any other intellectual property of Licensor or any Contributor except as expressly stated herein. Except as expressly stated in Sections 3 and 4, no other patent rights, express or implied, are granted herein. Your Extensions may require additional patent licenses from Licensor or Contributors which each may grant in its sole discretion. No right is granted to the trademarks of Licensor or any Contributor even if such marks are included in the Licensed Software. Nothing in this License shall be interpreted to prohibit Licensor from licensing under different terms from this License any code that Licensor otherwise would have a right to license.

5.1 You expressly acknowledge and agree that although Licensor and each Contributor grants the licenses to their respective portions of the Licensed Software set forth herein, no assurances are provided by Licensor or any Contributor that the Licensed Software does not infringe the patent or other intellectual property rights of any other entity. Licensor and each Contributor disclaim any liability to You for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, You hereby assume sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow You to distribute the Licensed Software, it is Your responsibility to acquire that license before distributing the Licensed Software.

6.0 Your Obligations And Grants. In consideration of, and as an express condition to, the licenses granted to You under this License You hereby agree that any Modifications, Derivative Works, or Required Components (collectively Extensions) that You create or to which You contribute are governed by the terms of this License including, without limitation, Section 4. Any Extensions that You create or to which You contribute must be Deployed under the terms of this License or a future version of this License released under Section 7. You hereby grant to Licensor and all third parties a world-wide, non-exclusive, royalty-free license under those intellectual property rights You own or control to use, reproduce, display, perform, modify, create derivatives, sublicense, and distribute Licensed Software, in any form. Any Extensions You make and Deploy must have a distinct title so as to readily tell any subsequent user or Contributor that the Extensions are by You. You must include a copy of this License or directions on how to obtain a copy with every copy of the Extensions You distribute. You agree not to offer or impose any terms on any Source Code or executable version of the Licensed Software, or its Extensions that alter or restrict the applicable version of this License or the recipients' rights hereunder.

Additionally, you herby grant to the Original Licensor the right to use, reproduce, display, perform, modify, create derivatives, sublicense, and distribute Licensed Software, in any form, under the terms of this license and/or any other license terms it sees fit.

6.1 Availability of Source Code. You must make available, under the terms of this License, the Source Code of any Extensions that You Deploy, by uploading the Source Code directly to the website of the Original Licensor. The Source Code for any version that You Deploy must be made available within one (1) month of when you Deploy. You may not charge a fee for any copy of the Source Code distributed under this Section. At the sole discretion of the Original Licensor, some or all of Your contributed Source Code may be included in a future baseline version released by the Original Licensor.

6.2 Description of Modifications. You must cause any Modifications that You create or to which You contribute to be documented in the Source Code, clearly describing the additions, changes or deletions You made. You must include a prominent statement that the Modifications are derived, directly or indirectly, from the Licensed Software and include the names of the Licensor and any Contributor to the Licensed Software in (i) the Source Code and (ii) in any notice displayed by the Licensed Software You distribute or in related documentation in which You describe the origin or ownership of the Licensed Software. You may not modify or delete any pre-existing copyright notices, change notices or License text in the Licensed Software without written permission of the respective Licensor or Contributor.

6.3 Intellectual Property Matters.

a. Third Party Claims. If You have knowledge that a license to a third party's intellectual property right is required to exercise the rights granted by this License, You must include a human-readable file with Your distribution that describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact.

b. Contributor APIs. If Your Extensions include an application programming interface ("API") and You have knowledge of patent licenses that are reasonably necessary to implement that API, You must also include this information in a human-readable file supplied with Your distribution.

c. Representations. You represent that, except as disclosed pursuant to 6.3(a) above, You believe that any Extensions You distribute are Your original creations and that You have sufficient rights to grant the rights conveyed by this License.

6.4 Required Notices.

a. License Text. You must duplicate this License or instructions on how to acquire a copy in any documentation You provide along with the Source Code of any Extensions You create or to which You contribute, wherever You describe recipients' rights relating to Licensed Software.

b. License Notice. You must duplicate any notice contained in EXHIBIT A (the "License Notice") in each file of the Source Code of any copy You distribute of the Licensed Software and Your Extensions. If You create an Extension, You may add Your name as a Contributor to the Source Code and accompanying documentation along with a description of the contribution. If it is not possible to put the License Notice in a particular Source Code file due to its structure, then You must include such License Notice in a location where a user would be likely to look for such a notice.

c. User-Visible Attribution. You must duplicate any notice contained in EXHIBIT B (the "User-Visible Attribution Notice") in each user-visible display of the Licensed Software and Your Extensions which delineates copyright, ownership, or similar attribution information. If You create an Extension, You may add Your name as a Contributor, and add Your attribution notice, as an equally visible and functional element of any User-Visible Attribution Notice content. To ensure proper attribution, You must also include such User-Visible Attribution Notice in at least one location in the Software documentation where a user would be likely to look for such notice.

6.5 Additional Terms. You may choose to offer, and charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Licensed Software. However, You may do so only on Your own behalf, and not on behalf of the Licensor or any Contributor except as permitted under other agreements between you and Licensor or Contributor. You must make it clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Licensor and every Contributor for any liability plus attorney fees, costs, and related expenses due to any such action or claim incurred by the Licensor or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

6.6 Conflicts With Other Licenses. Where any portion of Your Extensions, by virtue of being Derivative Works of another product or similar circumstance, fall under the terms of another license, the terms of that license should be honored however You must also make Your Extensions available under this License. If the terms of this License continue to conflict with the terms of the other license you may write the Licensor for permission to resolve the conflict in a fashion that remains consistent with the intent of this License. Such permission will be granted at the sole discretion of the Licensor.

7.0 Versions of This License. Licensor may publish from time to time revised versions of the License. Once Licensed Software has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Licensed Software under the terms of any subsequent version of the License published by Licensor. No one other than Licensor has the right to modify the terms applicable to Licensed Software created under this License.

7.1 If You create or use a modified version of this License, which You may do only in order to apply it to software that is not already Licensed Software under this License, You must rename Your license so that it is not confusingly similar to this License, and must make it clear that Your license contains terms that differ from this License. In so naming Your license, You may not use any trademark of Licensor or of any Contributor. Should Your modifications to this License be limited to alteration of a) Section 13.8 solely to modify the legal Jurisdiction or Venue for disputes, b) EXHIBIT A solely to define License Notice text, or c) to EXHIBIT B solely to define a User-Visible Attribution Notice, You may continue to refer to Your License as the Reciprocal Community Binary License or simply the RCBL.

8.0 Disclaimer of Warranty. LICENSED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE LICENSED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. FURTHER THERE IS NO WARRANTY MADE AND ALL IMPLIED WARRANTIES ARE DISCLAIMED THAT THE LICENSED SOFTWARE MEETS OR COMPLIES WITH ANY DESCRIPTION OF PERFORMANCE OR OPERATION, SAID COMPATIBILITY AND SUITABILITY BEING YOUR RESPONSIBILITY. LICENSOR DISCLAIMS ANY WARRANTY, IMPLIED OR EXPRESSED, THAT ANY CONTRIBUTOR'S EXTENSIONS MEET ANY STANDARD OF COMPATIBILITY OR DESCRIPTION OF PERFORMANCE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LICENSED SOFTWARE IS WITH YOU. SHOULD LICENSED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (AND NOT THE LICENSOR OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. UNDER THE TERMS OF THIS LICENSOR WILL NOT SUPPORT THIS SOFTWARE AND IS UNDER NO OBLIGATION TO ISSUE UPDATES TO THIS SOFTWARE. LICENSOR HAS NO KNOWLEDGE OF ERRANT CODE OR VIRUS IN THIS SOFTWARE, BUT DOES NOT WARRANT THAT THE SOFTWARE IS FREE FROM SUCH ERRORS OR VIRUSES. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF LICENSED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

9.0 Limitation of Liability. UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL THE LICENSOR, ANY CONTRIBUTOR, OR ANY DISTRIBUTOR OF LICENSED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

10.0 Restricted Rights Legend. This Specification is provided with Restricted Rights. Use, duplication or disclosure by the U.S. government is subject to restrictions as set forth in (a) this Agreement pursuant to DFARs 227.7202-3(a); (b) subparagraph (c)(1)(i) of the Rights in Technical Data and Computer Software clause at DFARs 252.227-7013; or (c) the Commercial Computer Software Restricted Rights clause at FAR 52.227-19 subdivision (c)(1) and (2), as applicable. Contractor / manufacturer are the OPC Foundation,. 16101 N. 82nd Street, Suite 3B, Scottsdale, AZ, 85260-1830

11.0 Responsibility for Claims. As between Licensor and Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License which specifically disclaims warranties and limits any liability of the Licensor. This paragraph is to be used in conjunction with and controlled by the Disclaimer Of Warranties of Section 8, the Limitation Of Damages in Section 9, and the disclaimer against use for High Risk Activities in Section 10. The Licensor has thereby disclaimed all warranties and limited any damages that it is or may be liable for. You agree to work with Licensor and Contributors to distribute such responsibility on an equitable basis consistent with the terms of this License including Sections 8, 9, and 10. Nothing herein is intended or shall be deemed to constitute any admission of liability.

12.0 Termination. This License and all rights granted hereunder will terminate immediately in the event of the circumstances described in Section 13.6 or if applicable law prohibits or restricts You from fully and or specifically complying with Sections 3, 4 and/or 6, or prevents the enforceability of any of those Sections, and You must immediately discontinue any use of Licensed Software.

12.1 Automatic Termination Upon Breach. This License and the rights granted hereunder will terminate automatically if You fail to comply with the terms herein and fail to cure such breach within thirty (30) days of becoming aware of the breach. All sublicenses to the Licensed Software that are properly granted shall survive any termination of this License. Provisions that, by their nature, must remain in effect beyond the termination of this License, shall survive.

12.2 Termination Upon Assertion of Patent Infringement. If You initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against Licensor or a Contributor (Licensor or Contributor against whom You file such an action is referred to herein as "Respondent") alleging that Licensed Software directly or indirectly infringes any patent, then any and all rights granted by such Respondent to You under Sections 3 or 4 of this License shall terminate prospectively upon sixty (60) days notice from Respondent (the "Notice Period") unless within that Notice Period You either agree in writing (i) to pay Respondent a mutually agreeable reasonably royalty for Your past or future use of Licensed Software made by such Respondent, or (ii) withdraw Your litigation claim with respect to Licensed Software against such Respondent. If within said Notice Period a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Licensor to You under Sections 3 and 4 automatically terminate at the expiration of said Notice Period.

12.3 Reasonable Value of This License. If You assert a patent infringement claim against Respondent alleging that Licensed Software directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by said Respondent under Sections 3 and 4 shall be taken into account in determining the amount or value of any payment or license.

12.4 No Retroactive Effect of Termination. In the event of termination under this Section all end user license agreements (excluding licenses to distributors and resellers) that have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

13.0 Miscellaneous.

13.1 U.S. Government End Users. The Licensed Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Licensed Software with only those rights set forth herein.

13.2 Relationship of Parties. This License will not be construed as creating an agency, partnership, joint venture, or any other form of legal association between or among You, Licensor, or any Contributor, and You will not represent to the contrary, whether expressly, by implication, appearance, or otherwise.

13.3 Independent Development. Nothing in this License will impair Licensor's right to acquire, license, develop, subcontract, market, or distribute technology or products that perform the same or similar functions as, or otherwise compete with, Extensions that You may develop, produce, market, or distribute.

13.4 Consent To Breach Not Waiver. Failure by Licensor or Contributor to enforce any provision of this License will not be deemed a waiver of future enforcement of that or any other provision.

13.5 Severability. This License represents the complete agreement concerning the subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable.

13.6 Inability to Comply Due to Statute or Regulation. If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Licensed Software due to statute, judicial order, or regulation, then You cannot use, modify, or distribute the software.

13.7 Export Restrictions. You may be restricted with respect to downloading or otherwise acquiring, exporting, or reexporting the Licensed Software or any underlying information or technology by United States and other applicable laws and regulations. By downloading or by otherwise obtaining the Licensed Software, You are agreeing to be responsible for compliance with all applicable laws and regulations.

13.8 Arbitration, Jurisdiction & Venue. This License shall be governed by Minnesota law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. You expressly agree that any dispute relating to this License shall be submitted to binding arbitration under the rules then prevailing of the American Arbitration Association. You further agree that Minnesota USA is proper venue and grant such arbitration proceeding jurisdiction as may be appropriate for purposes of resolving

any dispute under this License. Judgment upon any award made in arbitration may be entered and enforced in any court of competent jurisdiction. The arbitrator shall award attorney's fees and costs of arbitration to the prevailing party. Should either party find it necessary to enforce its arbitration award or seek specific performance of such award in a civil court of competent jurisdiction, the prevailing party shall be entitled to reasonable attorney's fees and costs. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. You and Licensor expressly waive any rights to a jury trial in any litigation concerning Licensed Software or this License. Any law or regulation that provides that the language of a contract shall be construed against the drafter shall not apply to this License.

13.9 Entire Agreement. This License constitutes the entire agreement between the parties with respect to the subject matter hereof.

EXHIBIT A

The License Notice below must appear in each file of the Source Code of any copy You distribute of the Licensed Software or any Extensions thereto:

Unless explicitly acquired and licensed from Licensor under another license, the contents of this file are subject to the Reciprocal Community Binary License ("RCBL") Version 1.00, or subsequent versions as allowed by the RCBL, and You may not copy or use this file in either source code or executable form, except in compliance with the terms and conditions of the RCBL.

All software distributed under the RCBL is provided strictly on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, AND LICENSOR HEREBY DISCLAIMS ALL SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, OR NON-INFRINGEMENT. See the RCBL for specific language governing rights and limitations under the RCBL.

EXHIBIT B

The User-Visible Attribution Notice below, when provided, must appear in each user-visible display as defined in Section 6.4 (c):

==

 OPC FOUNDATION MIT LICENSE 1.00

==

OPC Foundation MIT License 1.00

Copyright (c) 2008,2009 OPC Foundation, Inc.

Permission is hereby granted, free of charge, to any person

obtaining a copy of this software and associated documentation

files (the "Software"), to deal in the Software without

restriction, including without limitation the rights to use,

copy, modify, merge, publish, distribute, sublicense, and/or sell

copies of the Software, and to permit persons to whom the

Software is furnished to do so, subject to the following

conditions:

The above copyright notice and this permission notice shall be

included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,

EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES

OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT
HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,
WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR
OTHER DEALINGS IN THE SOFTWARE.

===
The following license applies to all OPC .NET 3.0 deliverables
===

Express Interface (Xi) Public License (Xi-PL)

--> AGREEMENT OF USE <--

This license governs use of the accompanying OPC Express Interface software. No right or license is granted whatsoever if this
license is not accepted. Any use of the software will be deemed as an acceptance of the terms of this license. If you do not accept the
license, do not use the Express Interface software.

1. Definitions
The terms "reproduce," "reproduction," "derivative works," and "distribution" have the same meaning here as under U.S. copyright
law.

A "contribution" shall include the original Express Interface software (source code and/or object code) and any additions or changes
to the Express Interface software. This Express Interface software shall also include the interface contracts and the Express Interface
software used to support the development of clients and servers that use this interface.

A "contributor" is any person that distributes its contribution under this license.

"Licensed patents" are a contributor's patent claims that read directly on its contribution.

2. Grant of Rights
(A) Copyright Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor
grants you a non-exclusive, worldwide, royalty-free copyright license to reproduce its contribution, prepare derivative works of its
contribution, and distribute its contribution or any derivative works that you create.

This license grants you a copyright license to make unlimited copies of the Express Interface software in source or object code form,
as well as to create derivative works (as that term is defined under US copyright law). This means that in addition to making unlimited
copies of the Express Interface software, you have a copyright license to modify the Express Interface software and to use all or part
of the Express Interface software to create a derivative work that implements or uses the Express Interface software.

This license expressly prohibits using the Express Interface software or any derivatives of it outside its intended use. In other words,
no right or license is granted for the use of the Express Interface software or its derivatives outside the use of implementing the
communications between a client and a server over a network or using it to implement the Express Interface client or server. Further,
all contributions must maintain the existing interface contracts interoperability with the Express Interface.

3. Conditions and Limitations
(A) No Trademark License - This license does not grant you rights to use any contributors' name, logo, or trademarks.

(B) If you bring an action of infringement under a patent claim against any contributor for the use or implementation of the Express Interface software, any and all rights granted under this License Agreement may be subject to termination.

(C) If you distribute any portion of the Express Interface software, you must retain all copyright, patent, trademark, and attribution notices that are present in the Express Interface software.

(D) If you distribute any portion of the Express Interface software in source code form, you may do so only under this license and by including a complete copy of this license with your distribution. If you distribute any portion of the Express Interface software in compiled or object code form, you may only do so under a license that complies with this license.

(E) The Express Interface software is licensed "as-is." You bear the risk of using it. The contributors give no express warranties, guarantees or conditions. You may have additional consumer rights under your local laws which this license cannot change. To the extent permitted under your local laws, the contributors exclude the implied warranties of merchantability, fitness for a particular purpose and non-infringement.

(F) Security Mechanisms are defined explicitly for Express Interface implementations only.

==
The Following agreement applies to all other deliverables (Classic COM):
==

NON-EXCLUSIVE LICENSE AGREEMENT

The OPC Foundation, a non-profit corporation (the "OPC Foundation"), has established a set of specifications intended to foster greater interoperability between automation/control applications, field systems/devices, and business/office applications in the process control industry.

The OPC specifications define standard interfaces, objects, methods, and properties for servers of real-time information like distributed process systems, programmable logic controllers, smart field devices and analyzers. The OPC Foundation distributes specifications, prototype software examples and related documentation (collectively, the "OPC Materials") to its members in order to facilitate the development of OPC compliant applications.

The OPC Foundation will grant to you (the "User"), whether an individual or legal entity, a license to use, and provide User with a copy of, the current version of the OPC Materials so long as User abides by the terms contained in this Non-Exclusive License Agreement ("Agreement"). If User does not agree to the terms and conditions contained in this Agreement, the OPC Materials may not be used, and all copies (in all formats) of such materials in User's possession must either be destroyed or returned to the OPC Foundation. By using the OPC Materials, User (including any employees and agents of User) agrees to be bound by the terms of this Agreement.

All OPC Materials, unless explicitly designated otherwise, are only available to currently registered members of the OPC Foundation (an "Active Member"). If the User is not an employee or agent of an Active Member then the User is prohibited from using the OPC Materials and all copies (in all formats) of such materials in User's possession must either be destroyed or returned to the OPC Foundation.

LICENSE GRANT:

Subject to the terms and conditions of this Agreement, the OPC Foundation hereby grants to User a non-exclusive, royalty-free, limited license to use, copy, display and distribute the OPC Materials in order to make, use, sell or otherwise distribute any products and/or product literature that are compliant with the standards included in the OPC Materials. User may not distribute OPC Materials outside of the Active Member organization to which User belongs unless the OPC Foundation has explicitly designated the OPC Material for public use.

All copies of the OPC Materials made and/or distributed by User must include all copyright and other proprietary rights notices included on or in the copy of such materials provided to User by the OPC Foundation.

The OPC Foundation shall retain all right, title and interest (including, without limitation, the copyrights) in the OPC Materials, subject to the limited license granted to User under this Agreement.

The following additional restrictions apply to all OPC Materials that are software source code, libraries or executables:

1) User is requested to acknowledge the use of the OPC Materials and provide a link to the OPC Foundation home page www.opcfoundation.org from the About box of the User's or Active Member's application(s).

2) User may include the source code, modified source code, built binaries or modified built binaries within User's own applications for either personal or commercial use. However, the source code, modified source code, built binaries or modified built binaries cannot be sold as is, either individually or together.

In other words, User may use OPC Foundation software to enhance the User's applications and to ensure compliance with the various OPC specifications. User is prohibited from gaining commercially from the OPC software itself.

PUBLIC USE DECLARATION:

The public is granted non-exclusive, royalty-free, limited license to download, use and redistribute the following deliverables. (The OPC Foundation retains ownership and full copyright)

"OPC Core Components x.xx SDK"
"OPC Core Components x.xx Redistributable"
"OPC COM ProxyStub Merge Module"
"OPC .NET API x.xx Redistributables (x86)"
"OPC .NET API x.xx Merge Module (x86)"

CORPORATE MEMBER USE DECLARATION:

OPC Foundation Corporate Members are granted non-exclusive, royalty-free, limited license to download, use and redistribute the following deliverables. (The OPC Foundation retains ownership and full copyright)

"OPC DA x.xx Sample Binaries"
"OPC XMLDA x.xx Sample Binaries"
"OPC HDA x.xx Sample Binaries"

"OPC AE x.xx Sample Binaries"

"OPC DX x.xx Sample Binaries"

"OPC DX x.xx Sample Binaries"

"OPC .NET API x.xx Source Code"

"OPC .NET API x.xx Source Code"

"OPC DA Auto 2.02 Source Code"

WARRANTY AND LIABILITY DISCLAIMERS:

User acknowledges that the OPC Foundation has provided the OPC Materials for informational purposes only in order to help User understand the relevant OPC specifications. THE OPC MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. USER BEARS ALL RISK RELATING TO QUALITY, DESIGN, USE AND PERFORMANCE OF THE OPC MATERIALS. The OPC Foundation and its members do not warrant that the OPC Materials, their design or their use will meet User's requirements, operate without interruption or be error free.

IN NO EVENT SHALL THE OPC FOUNDATION, ITS MEMBERS, OR ANY THIRD PARTY BE LIABLE FOR ANY COSTS, EXPENSES, LOSSES, DAMAGES (INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES) OR INJURIES INCURRED BY USER OR ANY THIRD PARTY AS A RESULT OF THIS AGREEMENT OR ANY USE OF THE OPC MATERIALS.

GENERAL PROVISIONS:

This Agreement and User's license to the OPC Materials shall be terminated (a) by User ceasing all use of the OPC Materials, (b) by User obtaining a superseding version of the OPC Materials, or (c) by the OPC Foundation, at its option, if User commits a material breach hereof. Upon any termination of this Agreement, User shall immediately cease all use of the OPC Materials, destroy all copies thereof then in its possession and take such other actions as the OPC Foundation may reasonably request to ensure that no copies of the OPC Materials licensed under this Agreement remain in its possession.

User shall not export or re-export the OPC Materials or any product produced directly by the use thereof to any person or destination that is not authorized to receive them under the export control laws and regulations of the United States.

The Software and Documentation are provided with Restricted Rights. Use, duplication or disclosure by the U.S. government is subject to restrictions as set forth in (a) this Agreement pursuant to DFARs 227.7202-3(a); (b) subparagraph (c)(1)(i) of the Rights in Technical Data and Computer Software clause at DFARs 252.227-7013; or (c) the Commercial Computer Software Restricted Rights clause at FAR 52.227-19 subdivision (c)(1) and (2), as applicable. Contractor/ manufacturer is the OPC Foundation, 16101 N. 82nd Street, Suite 3B, Scottsdale, AZ 85260-1830, USA.

Should any provision of this Agreement be held to be void, invalid, unenforceable or illegal by a court, the validity and enforceability of the other provisions shall not be affected thereby.

This Agreement shall be governed by and construed under the laws of the State of Minnesota, excluding its choice or law rules.

This Agreement embodies the entire understanding between the parties with respect to, and supersedes any prior understanding or agreement (oral or written) relating to, the OPC Materials.

Appendix U – SUN PUBLIC LICENSE Version 1.0

SUN PUBLIC LICENSE Version 1.0

1. Definitions.

1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.

1.1. "Contributor" means each entity that creates or contributes to the creation of Modifications.

1.2. "Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made y that particular Contributor.

1.3. "Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof and corresponding documentation released with the source code.

1.4. "Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. "Executable" means Covered Code in any form other than Source Code.

1.6. "Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.

1.7. "Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.

1.8. "License" means this document.

1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means any addition to or deletion from the substance or structure of either the Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:

      A. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.

      B. Any new file that contains any part of the Original Code or previous Modifications.

1.10. "Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.

1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.11. "Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated documentation, interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. Source Code License.

2.1 The Initial Developer Grant.

The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof).

(c) the licenses granted in this Section 2.1(a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted:

1) for code that You delete from the Original Code;

2) separate from the Original Code; or

3) for infringements caused by:

      i) the modification of the Original Code or

      ii) the combination of the Original Code with other software or devices.

2.2. Contributor Grant.

Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) the licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first makes Commercial Use of the Covered Code.

(d) notwithstanding Section 2.2(b) above, no patent license is granted:

1) for any code that Contributor has deleted from the Contributor Version;

2) separate from the Contributor Version;

3) for infringements caused by:

      i) third party modifications of Contributor Version or

      ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or

4) under Patent Claims infringed by Covered Code in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Application of License.

The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

3.2. Availability of Source Code.

Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

3.3. Description of Modifications.

You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

3.4. Intellectual Property Matters.

(a) Third Party Claims.

If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

(b) Contributor APIs.

If Contributor's Modifications include an application programming interface ("API") and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the LEGAL file.

(c) Representations.

Contributor represents that, except as disclosed pursuant to Section 3.4(a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

3.5. Required Notices.

You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear than any such warranty, support,

indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.6. Distribution of Executable Versions.

You may distribute Covered Code in Executable form only if the requirements of Section 3.1-3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.7. Larger Works.

You may create a Larger Work by combining Covered Code with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

6. Versions of the License.

6.1. New Versions.

Sun Microsystems, Inc. ("Sun") may publish revised and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

6.2. Effect of New Versions.

Once Covered Code has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Sun. No one other than Sun has the right to modify the terms applicable to Covered Code created under this License.

6.3. Derivative Works.

If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must: (a) rename Your license so that the phrases "Sun," "Sun Public License," or

"SPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Sun Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

8. TERMINATION.

8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

8.2. If You initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:

(a) such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days' notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: (i) agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

(b) any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.

8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT

APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

10. U.S. GOVERNMENT END USERS.

The Covered Code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

11. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

12. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

13. MULTIPLE-LICENSED CODE.

Initial Developer may designate portions of the Covered Code as ?Multiple-Licensed?. ?Multiple-Licensed? means that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

Exhibit A -Sun Public License Notice.

The contents of this file are subject to the Sun Public License Version 1.0 (the "License"); you may not use this file except in compliance with the License. A copy of the License is available at http://www.sun.com/

The Original Code is _____. The Initial Developer of the Original Code is _____. Portions created by _____ are Copyright (C)_____. All Rights Reserved.

Contributor(s): _____.

Alternatively, the contents of this file may be used under the terms of the _____ license (the ?[___] License?), in which case the provisions of [_____] License are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the [____] License and not to allow others to use your version of this file under the SPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the [___] License. If you do not delete the provisions above, a recipient may use your version of this file under either the SPL or the [___] License."

[NOTE: The text of this Exhibit A may differ slightly from the text of the notices in the Source Code files of the Original Code. You should use the text of this Exhibit A rather than the text found in the Original Code Source Code for Your Modifications.]