



**Creo Elements/Direct
Drafting VRML Translator**
Creo Elements/Direct Drafting 20.2.4.0

Copyright © 2021 PTC Inc. and/or Its Subsidiary Companies. All Rights Reserved.

User and training guides and related documentation from PTC Inc. and its subsidiary companies (collectively "PTC") are subject to the copyright laws of the United States and other countries and are provided under a license agreement that restricts copying, disclosure, and use of such documentation. PTC hereby grants to the licensed software user the right to make copies in printed form of this documentation if provided on software media, but only for internal/personal use and in accordance with the license agreement under which the applicable software is licensed. Any copy made shall include the PTC copyright notice and any other proprietary notice provided by PTC. Training materials may not be copied without the express written consent of PTC. This documentation may not be disclosed, transferred, modified, or reduced to any form, including electronic media, or transmitted or made publicly available by any means without the prior written consent of PTC and no authorization is granted to make copies for such purposes. Information described herein is furnished for general information only, is subject to change without notice, and should not be construed as a warranty or commitment by PTC. PTC assumes no responsibility or liability for any errors or inaccuracies that may appear in this document.

The software described in this document is provided under written license agreement, contains valuable trade secrets and proprietary information, and is protected by the copyright laws of the United States and other countries. It may not be copied or distributed in any form or medium, disclosed to third parties, or used in any manner not provided for in the software licenses agreement except with written prior approval from PTC.

UNAUTHORIZED USE OF SOFTWARE OR ITS DOCUMENTATION CAN RESULT IN CIVIL DAMAGES AND CRIMINAL PROSECUTION.

PTC regards software piracy as the crime it is, and we view offenders accordingly. We do not tolerate the piracy of PTC software products, and we pursue (both civilly and criminally) those who do so using all legal means available, including public and private surveillance resources. As part of these efforts, PTC uses data monitoring and scouring technologies to obtain and transmit data on users of illegal copies of our software. This data collection is not performed on users of legally licensed software from PTC and its authorized distributors. If you are using an illegal copy of our software and do not consent to the collection and transmission of such data (including to the United States), cease using the illegal version, and contact PTC to obtain a legally licensed copy.

Important Copyright, Trademark, Patent, and Licensing Information: See the About Box, or copyright notice, of your PTC software.

UNITED STATES GOVERNMENT RIGHTS

PTC software products and software documentation are "commercial items" as that term is defined at 48 C.F.R. 2.101. Pursuant to Federal Acquisition Regulation (FAR) 12.212 (a)-(b) (Computer Software) (MAY 2014) for civilian agencies or the Defense Federal Acquisition Regulation Supplement (DFARS) at 227.7202-1(a) (Policy) and 227.7202-3 (a) (Rights in commercial computer software or commercial computer software documentation) (FEB 2014) for the Department of Defense, PTC software products and software documentation are provided to the U.S. Government under the PTC commercial license agreement. Use, duplication or disclosure by the U.S. Government is subject solely to the terms and conditions set forth in the applicable PTC software license agreement.

PTC Inc., 121 Seaport Blvd, Boston, MA 02210 USA

Contents

About this Manual	4
About the VRML Translator	5
VRML Translator Fileset	6
Using the VRML Translator	7
Conversion Rules	8
Before You Translate	8
Running the VRML Translator	8
Selecting Options from the VRML Translator Menu	9
Configuration File	11
Introduction	12
Translation Parameters	12
Index	15



About this Manual

This manual discusses the operation of the VRML Translator on systems running Microsoft Windows.

About the VRML Translator

VRML Translator Fileset.....	6
------------------------------	---

The VRML Translator enables you to translate MI version 2.8 (or earlier) files to VRML (Virtual Reality Modeling Language) 97 files so that these files can be viewed in a VRML browser.

The VRML Translator is supported on Microsoft Windows platforms.

VRML Translator Fileset

The VRML Translator is automatically installed when you install Creo Elements/Direct Drafting. No separate installation procedure is required. When you install Creo Elements/Direct Drafting, the following VRML Translator files are installed in the `vrml` subdirectory of the Creo Elements/Direct Drafting installation directory:

<code>vrml.exe</code>	Executable code for the translator
<code>vrml.con</code>	Configuration file
<code>vrml.ms</code>	Message file for the translator

2

Using the VRML Translator

Conversion Rules	8
Before You Translate	8
Running the VRML Translator.....	8
Selecting Options from the VRML Translator Menu	9

The VRML Translator converts MI files to VRML files in either single-file or batch mode.

Conversion Rules

- The default source and destination directory is your current directory.
- The default source and destination directories can be changed by editing the configuration file. Refer to [Translation Parameters on page 12](#) for more information.
- You also can specify the path for the source, destination and log files. In this case the default directories are ignored, and the absolute path is used for both the destination and log files.

Before You Translate

1. Convert splines to lines and arcs before you translate the MI file.
2. Make sure the files to be translated and the VRML Translator are on the same system.
3. During translation, several minor warnings may appear. You can suppress these warnings with the `TRANSLATOR_WARNING` function. See `TRANSLATOR_WARNING` in the Programming Reference Guide for details.
4. Make sure the parameters in the appropriate configuration file are set correctly for your translation. Refer to [Configuration File on page 11](#) for information on setting the parameters. If you need to edit a file, use an editor that saves files in ASCII format.
5. To translate in batch mode, you must first create the required batch file. Refer to [Creating a Batch File on page 10](#) for guidance.

Running the VRML Translator

To run the Translator:

1. You must have already started your Windows operating system before you can start the VRML Translator.
2. Click: **Start ► All Programs ► PTC ► Creo Elements Direct Drafting [version] ► Creo Elements Direct Drafting VRML Translator [version]**.
3. The VRML Translator start-up screen is displayed. Press `[Enter]` to display the VRML translator menu.

Selecting Options from the VRML Translator Menu

To choose an option from the VRML Translator menu, enter the corresponding number via the keyboard, press [Enter], and follow the prompt. If you inadvertently select the wrong option, simply keep pressing [Enter] until the VRML Translator menu reappears.

Exit Program (0)

This option terminates the program.

Translate MI to VRML (1)

This option translates a single MI file to VRML format. Proceed as follows:

1. In the VRML Translator menu, select option # 1.
2. Enter the name of the source file and press [Enter].
3. Optionally, enter the name of the destination file. If you press [Enter] to use the default, the destination filename will be the name of the source file followed by the `.wrl` suffix.
4. Optionally, enter the name of the log file. If you press [Enter] to use the default, the logfile name will be the name of the source file followed by the `.log` suffix.
5. When you have entered the appropriate filename(s), press [Enter] again to perform the translation.

Batch Translate MI to VRML (2)

This option translates multiple MI files to VRML format. Proceed as follows:

1. In the VRML Translator menu, select option # 2.
2. Enter the name of the batch file for MI to VRML conversion. Each line in the batch file must be a valid response to the `Enter source [dest [log] file name (s)]` prompt that appears in the Translate MI to VRML screen. Refer to [Creating a Batch File on page 10](#) for instructions on creating the batch file.
3. Press the [Enter] key. The Translator produces a destination (output) file in VRML format and a log file for each file specified in the batch file.
4. Check the batch log file for the result of the translation.

Creating a Batch File

Create your batch file by means of any text editor. Each line of the batch file must contain a source filename, and optionally, destination and log filenames. Specify the names as follows (filenames in brackets are optional):

```
source_filename [destination_filename] [log_filename]
```

You cannot specify the log filename unless you first specify the destination filename.

The format of the entries in your batch file is the same as the format used to respond to the prompt that comes up when you select the appropriate option from the VRML Translator's menu. Read these sections for further explanation of the format used to enter filenames.

An example of the contents of an MI to VRML batch translation file is shown below.

```
cylh1.mi cylh1.wrl cylh1.log  
cylh2.mi headg.wrl head.log  
motor_br.mi  
jibmount.mi cranel45.wrl jib.log
```

3

Configuration File

Introduction.....	12
Translation Parameters.....	12

Introduction

The configuration file `vrml.con` controls the translation process and the mapping of configurable entities in the VRML Translator. The configuration file comes with default settings which you can edit as required.

Translation Parameters

Source directory path

This parameter specifies a directory path name from which the input file for the translation is read. The specified path name is prefixed to the input filename unless an absolute path name is specified.

The default directory name is `[.]` which means the current directory.

Note

Do not forget to include the terminating backslash in the directory name.

Destination directory path

This parameter specifies a directory path name to which the output file from the translation is written. The specified path name is prefixed to all output filenames unless an absolute path name is specified.

The default directory name is `[.]` which means the current directory.

Note

Do not forget to include the terminating backslash in the directory name.

Verbose

This parameter specifies whether the warning messages generated during translation are to be printed into the log file. `ON` means warning messages are printed: `OFF` means they are not. The default is `ON`.

Error limit

This parameter specifies the number of errors tolerated before the MI to VRML translation process is aborted. The default is 0, implying that the VRML translator will not generate a VRML file if errors are encountered.

OverWrite

This parameter specifies whether or not an existing file with the same name as the output file is to be overwritten by the output file. ON means overwriting is allowed: OFF means no overwriting. The default is OFF.

Strip suffix

This parameter specifies whether or not the .mi suffix will be removed automatically. For example, if your MI file is named `myfile.mi` and this parameter is set to OFF, the resulting output file would be named `myfile.mi.wrl`. The default is ON, implying that the `mi` suffix is stripped before the `wrl` or `log` suffix is appended. This setting is mandatory for DOS.

MI suffix

This parameter specifies the suffix for the MI filename. The VRML translator expects to find this filename suffix when translating an MI file. The default is `.mi`.

VRML suffix

This parameter specifies the suffix for the VRML filename. This suffix will be appended to the VRML output filename. The default is `.wrl`.

Log suffix

This parameter specifies the suffix to the translation log filename. The default is `.log`.

Kanji translation

This parameter specifies whether or not the translation of Kanji characters will be enabled. ON means Kanji characters will be translated. OFF means Kanji characters will not be translated. The default is OFF.

Accuracy

This parameter specifies the accuracy of the VRML translation as an integer. The default is 32 bits of accuracy.

Border

This parameter specifies whether or not a border will be drawn around the VRML output. The default is ON implying that a border is added.

Creo Elements/Direct Drafting Path

This parameter specifies the Creo Elements/Direct Drafting installation path.

Index

A

Accuracy, 14

B

Batch file
 creating, 10
Batch translate
 MI to VRML, 9
Before you translate, 8
Border, 14

C

Configuration file, 12
Creo Elements/Direct Drafting path, 14

D

Destination directory path, 12
Directory
 destination, 12
 source, 12

E

Error limit, 13
Exit program, 9

F

Fileset, 6

K

Kanji translation, 13

L

Log suffix, 13

M

MI suffix, 13
MI to VRML
 batch translate, 9
 translate, 9

O

Options
 selecting, 9
OverWrite, 13

P

Parameters, 12
Path
 destination directory, 12
 source directory, 12
Product overview, 5

S

Source directory path, 12
Starting the VRML Translator, 8
Strip suffix, 13
Suffix
 log, 13
 MI, 13
 VRML, 13

T

Translate

before you translate, 8
MI to VRML, 9
MI to VRML (batch), 9

U

Using the VRML Translator, 7

V

Verbose, 12
VRML suffix, 13
VRML Translator
 exiting, 9
 running, 8