

PTC Technical Specialists E-Newsletter

Date: May 31, 2005



FC Product Focus: A) <u>Injection Mold Design in Pro/ENGINEER</u>

B) FlexPDM F/A (Footwear / Apparel)

Tips of the Week:

A) View Manager includes Sectioning

B) FlexPDM Server Side Plugins

Announcements: Most Recent Announcements

Upcoming Events & Training Schedule: Events & Training Schedule

PTC Product Focus

Injection Mold Design in Pro/ENGINEER

Click Here To View

Back To Top

PTC Product Focus

FlexPDM F/A (Footwear / Apparel)

FlexPDM F/A (Footwear/Apparel) is a vertical application targeting the Product Lifecycle Management (PLM) business and operational requirements of the Footwear and Apparel industry. Key to providing a successful PLM solution to the F/A industry is delivering a product that can be provided as an out-of-box solution, while allowing companies to buy what they need and evolve the solution as their business needs warrants.

Capabilities Overview

FlexPDM provides several fundamental capabilities for the Retail, Footwear, and Apparel vertical. Each capabilities addresses the unique requirements in this vertical.

- Flexible Object and Data Model Definition Interactive pages to define and change the object models, relationships, and attributes at any time.
- Seasonal Line Definition Capture the Season goals, themes, and ideas while developing the relationships to Styles and SKUs.
- Style and SKU Definition Provides ability to create and manage Styles and associated SKUs in a phased approach.
- Bill of Materials Ability to fully detail the Bill of Materials of a Style and their associated SKUs.
- Materials Library Develop and manage a central library of Materials for use in Style and SKU definitions.



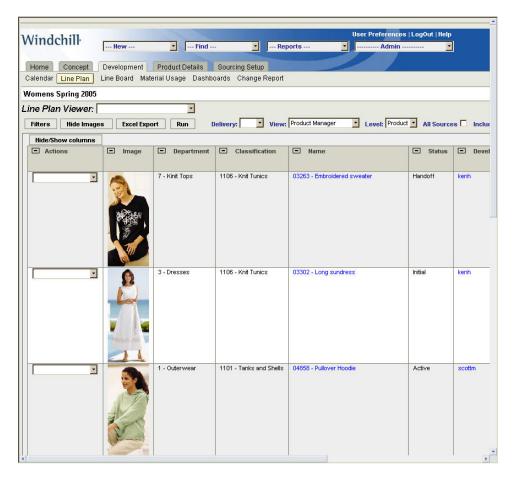
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 Interactive Reports - Each interactive views or reports allows individuals to review the evolving state of a given Season.

The following sections provide more detail of the functional areas that addressed by the FlexPDM solution.

Line Planning

The FlexPDM F/A Line Plan Viewer provides the gathering place for all the contributors to your line development effort, reaching across brands, departments, and business units in real time to enable a true collaborative process. Products are represented with detailed information including images, fabrics, and development status. Users can easily configure the Line Plan view based upon their role or responsibility in the organization.



Color Management

FlexPDM F/A allows companies to define colors using your preferred color system including pantone, NRF, RGB definition or freeform.

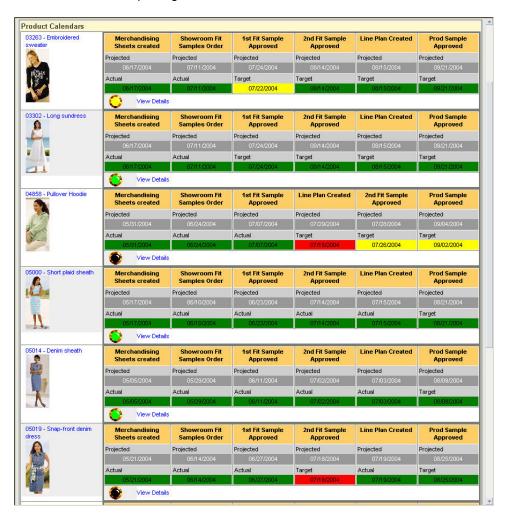
- Integrates with Spectrophotometer technology
- Automated Lab Dip management
- Color Palette control
- Formula and testing management



Seasonal Calendar Management

FlexPDM F/A provides the definition and management of Seasonal Product Lines that are created and maintained from an interactive Webbased Line Plan view.

- Forecasting by Product Categories
- Seasonal Calendar/Timelines
- Add Drop Management
- Executive Dashboard Reporting



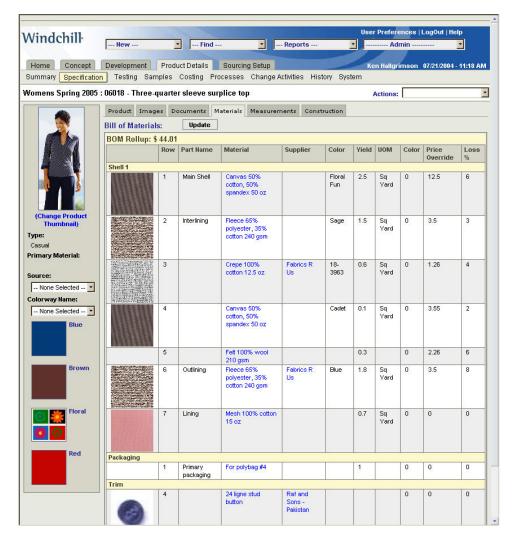
Product Data Management

FlexPDM F/A supports Product Data Management definitions including image capture, construction details, points of measure and automated graded measurements based on Product/SKU size runs, providing the ability to create and manage every aspect of your product development infrastructure

- Web Based Product Specifications
- Quick costing
- Real time image markup and collaboration capability
- · Configurable forms, fields, security and user interface
- Proven global deployment ensures a rapid return on investment

Bill of Materials (BOM)

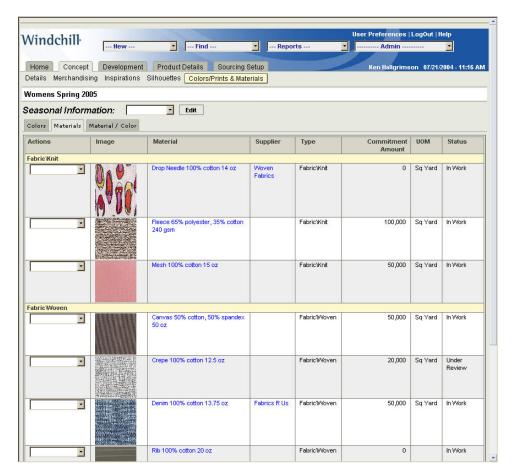
FlexPDM F/A provides the ability to fully detail the BOM of a Product/SKU, including detailed Materials costing. Ability to fully detail the BOM of a Style and its associated SKUs, as well as size specific support. Easy to use interactive interface for defining BOM and referencing Materials Library. Include specifics on suppliers, associated color, and source/factory specific BOM details



Material and Supplier Management

FlexPDM F/A is capable of defining and managing a central library of Fabric and Trim (Materials) for use in Product and SKU definitions. Formalize supplier selection based on price, lead-time, or quality.

- Enables designers, technical specialists, and purchasing to develop and manage a central library of Fabric and Trim (Materials) for use in Style and SKU definitions.
- Ability to collaborate and visually mark up images, prints and graphics in real time.
- Each Material can be associated to one or more Colors and one or more suppliers. Includes the ability to establish supplier specific reference numbers, pricing, approval status, as well as when prices are effective.



Back To Top

Tips of the Week

View Manager includes Sectioning

Click Here To View

Back To Top

Tips of the Week

FlexPDM Server Side Plugins

Introduction

Many times in a FlexPDM customization, new business logic may need to be implemented which requires more than a simple GUI customization. Attribute values may need to be derived in complex ways, objects may need to be created, updated, or deleted as a side effect of some other logic, or a complex access control rule might need to be enforced. This business logic would often require custom code that would be integrated with the core Windchill or FlexPDM code and could not be upgraded with new versions easily.

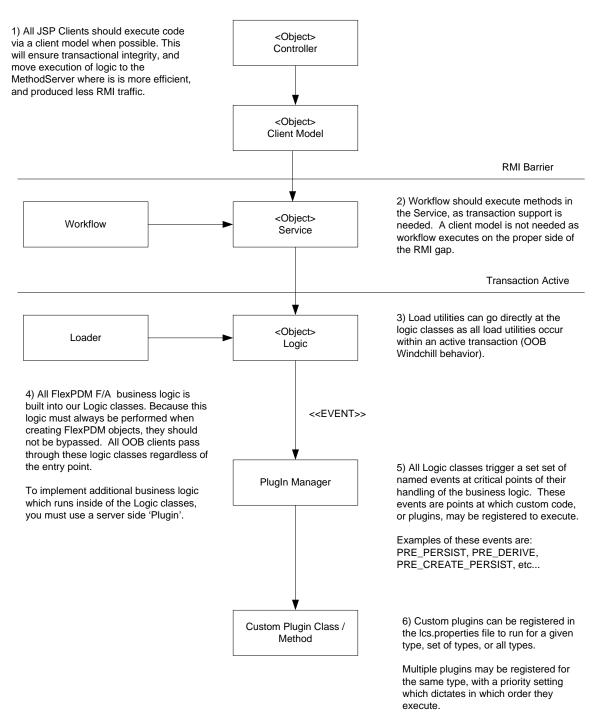
A Server Side Plug-in is a custom, static, java class that is used to perform, or implement, business logic via, and during, the FlexPDM persistence mechanism. The plug-in provides a mechanism to add custom business logic to any object and event on these objects without effecting the code classes. Each plug-in is registered in a properties file and is executed based on the registration criteria, thus allowing a company too add as many new methods to capture their specific business logic without effecting upgradeability.

Architecture

These plug-ins occur on the server, rather than embedded within a GUI component to increate performance and portability. Good programming practices indicate that business logic should not be located in the GUI to ensure that the logic is universal and executed regardless of the interface used.

The custom code for the plug-in is placed in a location such that all clients of an action can take advantage of the custom code. Whether it be a JSP, InfoEngine task, workflow, or loader, if the code is inserted into the server side logic, then it will be executed.

The following diagram indicates when the plug-ins are executed relative to a standard Windchill persistantance call.



Creating Server Side Plug-ins

Adding server side plugins to FlexPDM is a simple two step process. First you must create the plug-in class and method, and then you must register the plugin with the FlexPDM PluginManager so that knows when it should execute the plugin.

Step1: Creating the Plugin Class

A server side plugin is fairly simple to create. It can be any java method in any class as long as it meets the following criteria:

1. The method must be static.

2. The method must take one parameter: a WTObject which is the object that the plug-in is registered.

Step 2: Registering the Plugin

Once your plugin test is created, you must register it with the FlexPDM PluginManager. To do this you simply add a line to the custom.lcs.properties file (followed by a MethodServer restart).

In the format above the words surrounded by < > should be replaced with the proper values. Each value is described below:

- <entryNumber>: This is a unique number or sequence for the entry in the properties file.
 Each plugin that you register should have a different entry number. The number has no importance other than to make the entry unique.
- <targetType>: This is the full path of the type of object you would like the plugin to run on as defined by your Type Manager classification hierarchy. An example might be "Product\Apparel\Sourced'(insure that double backslash is used as a type seperator), or "Material". If a type is used with is a parent of other types, then the plugin will be run for all child types as well. By using 'Color' as a type, you would be saying that you want the plugin to run for all colors in the system.
- < targetClass > : This is the fully qualified path to the Object which the event is occurring
 for. An example might be: com.lcs.wc.product.LCSProduct
- <pluginClass>: This is the class name which holds your plugin method. In the code example above, the class name would be 'com.test .PluginTest'
- <pluginMethod>: This is the static method with one WTObject parameter inside of your plugin class. In the above code example it would be 'handleEvent'
- <event>: This is the event which you want the plugin to run. An example might be
 'PRE_PERSIST' which would say you want the plugin to run before each object is saved to the
 database (create or update). See next section for details about different events.

After attribute values are derived, FlexPDM executes its OOB business logic. Associations are built, products are iterated, placeholders are made, etc. This is the logic that is inherent to how FlexPDM functions. Once this logic is completed, business objects are saved to the database, in other words persisted. A persist can be either a create or an update.

Back To Top

Announcements

Educational Resource Library

Learn things you always wanted to do - but didn't know you could.

This one stop educational resource library will help you learn more about PTC Solutions and provide you with technical materials developed by the product experts to help you become more productive.

Get tutorials, how-to videos and expert advice for:

- Pro/ENGINEER
 - Conceptual and Industrial Design
 - Detailed Design
 - Simulation/Analysis
 - Production
 - Design Collaboration
- Windchill PDMLink
- Windchill ProjectLink
- Pro/INTRALINK
- PTC Online Tools

Check out the Educational Resource Library today.

Live Instructor-Lead Virtual PTC Training Courses

PTC will be offering a series of Virtual Classrooms this quarter for you looking to save money (15% off ILT prices) and cut down on travel.

Virtual Classrooms provide interactive learning with a trained PTC instructor in convenient and manageable sessions that last approximately 4 hours over a series of days. It's easy to join a class right from your desk using a phone or voice-over IP technology.

Sessions are performed just like a traditional ILT (including interactive exercises where you and the instructor can work on lab exercises together) and feature some of our most popular ILT courses. These sessions cover the exact same material as the traditional ILT in-center courses. Also look for some of our most frequently requested mini-topics delivered in the same format that are only an hour - two hours in duration.

If you have any questions about these sessions or would like to see getting other courses, not on this list, on the schedule please feel free to contact me for more details. They are a great way to bring training to you without you having to worry about location or being out from work for long stretches.

You can register for these sessions just as you would for any normal ILT class either by:

1. calling order admin at http://www.ptc.com/services/edserv/training/registra.htm or

2. you can go to PTC University directly at http://www.ptc.com/learning and submit a registration request directly. All you have to do is search the catalog by typing in "virtual" in the search field and you will see a listing.

PTC Tips & Techniques Newsletter Archives

Miss an issue! Can't find that awesome technique you read about? Fear not, you can click on the link below and go through our Customer PTC E-Newsletter archives.

Click Here To Access

It's better than finding the Covenant of the Ark!

PTC Tips & Techniques Webcasts: Work Smarter. Not Harder.

Click below to see regularly scheduled Tips & Techniques technical Webcasts that are designed to provide you with the most popular time-saving tricks that Pro/ENGINEER users of all skill levels will find useful. Get more out of your maintenance dollars!

Tips & Techniques: Work Smarter Not Harder!

Thinking About Pro/ENGINEER Wildfire? Check this out.



http://www.ptc.com/go/engineering/index.htm

E-PROFILES IS HERE!!

We have been eagerly anticipating the debut of the new electronic version of Profiles Magazine and now it is here! This new web site will supplement the print edition of the magazine and will provide new useful features not feasible with paper media. e-Profiles will provide you with 24x7, worldwide access to key information previously available exclusively in the print version. "Tips & Tricks," a popular feature pioneered by Pro/USER, has also moved to the web and will be expanded as the site matures.

Please take a few minutes to check out this new web site. We don't think you will be disappointed.

http://profilesmagazine.com/

Back To Top

Upcoming Events & Training Class Schedules

Upcoming, 2005 Your local Pro/Engineer User Groups

http://www.ptcuser.org/rugs/

June 5 - 8, 2005 Orlando, FL

PTC/USER International Conference

http://www.ptcuser.org/

Events

Our seminars and conferences seek to provide you with relevant information regarding product development trends in your industry as well as innovative software learning experiences. Think of them as a constructive day off where you can share experiences and swap ideas with your peers.

If you can't manage to get away, we'll bring it to you. Check back often for regularly scheduled live webcast events.

You're Invited to Attend...

Please visit the <u>PTC Education Services</u> website for the latest training information including course descriptions, schedules, locations, and pricing.

 Attend a course at any PTC Center and receive a free copy of Pro/ENGINEER Wildfire Student Edition!

http://www.ptc.com/services/edserv/index.htm

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PTC

Note: This PTC E-Newsletter will continue to be used for the following:

- 1) Inform you on events related to PTC products (user groups, conferences, training schedules, etc.)
- 2) Educate you on solutions that are available at PTC
- 3) Tips & Techniques using PTC Products

Note: These messages are compiled in the local PTC office and will be distributed via e-mail.

Back To Top