Teamcenter 10.1

Product Master Management Release Bulletin

PLM00107 • 10.1.6
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Chapter 1: Obsolescence announcements

With enhancements in Product Master Management, some features are made obsolete. These features are either removed from Product Master Management or may be removed without further notice.

Obsolete features

• Order Builder is obsolete

  Instead of Order Builder, use the Variant Configuration view to specify a particular model of an automobile and a combination of variant options used to define a particular configuration.

Obsolete web services

<table>
<thead>
<tr>
<th>Obsolete version</th>
<th>Latest version</th>
</tr>
</thead>
<tbody>
<tr>
<td>addWIPItemsToPackage from PackageManager201106Service</td>
<td>addWIPItemsToPackage from PackageManager201305Service.</td>
</tr>
<tr>
<td>movePackagedItemsToWIP from PackageManager201106Service.</td>
<td>movePackagedItemsToWIP from PackageManager201305Service.</td>
</tr>
<tr>
<td>login from LoginManager2006</td>
<td>SSOLogin from LoginManager2006 service.</td>
</tr>
<tr>
<td>genericQuery from Query2006</td>
<td>GenericQuery from the Query201410 service.</td>
</tr>
</tbody>
</table>
Chapter 2: System requirements

Software requirements

The third-party software requirements for the hosts in the Product Master Management system are as follows:

• Teamcenter server host and Product Master Management server hosts
  o One of the following operating systems:
    ■ IBM AIX
    ■ Microsoft Windows Server
    ■ Oracle Solaris
    ■ SUSE Linux Enterprise Server
  o Java Runtime Environment (JRE)

• Database server host
  o Oracle Database

• Teamcenter rich client hosts
  o Microsoft Windows
  o JRE

• Web application server hosts
  o Oracle WebLogic
  o JBoss

For current information about the software versions supported by Product Master Management for your platform, see the Teamcenter Software Certification.

The Teamcenter Software Certification supersedes the software requirements listed in the Product Master Management technical documentation.

Oracle database requirements

The 10.1.5 release of Product Master Management supports Oracle 11g 11.2.0.4 and Oracle 12c 12.1.0.2 with patch 19509982.

Product Master Management requires specific patch versions of the Oracle database for each operating system:

• SUSE Linux (64-bit) - Patch 14275621: Database Patch Set Update Oracle 11g 1.2.0.4 with the latest patch and Oracle 12c 12.1.0.2 with patch 19509982
• IBM AIX - Patch 13343424: Database Patch Set Update Oracle 11g 11.2.0.4 with the latest patch and Oracle 12c 12.1.0.2 with patch 19509982

• Microsoft Windows (32-bit) - Patch 12914925: Oracle 11g 11.2.0.4 with the latest patch and Oracle 12c 12.1.0.2 with patch 19509982

• Microsoft Windows x64 (64-bit) - Patch 13038788: Oracle 11g 11.2.0.4 with the latest patch and Oracle 12c 12.1.0.2 with patch 19509982

• Oracle Solaris- Patch 13343244: CPUJAN2012 DATABASE Oracle 11g 11.2.0.4 with the latest patch and Oracle 12c 12.1.0.2 with patch 19509982

Product Master Management uses the Unicode UTF-8 character set to exchange data between servers that are configured for different locales. Hence, for the database instance for Product Master Management, you must set both the database character set and the national character to UTF-8.

Before importing any data into Product Master Management, you must convert it to UTF-8 format. All data from Product Master Management is exported in UTF-8 format.

**Teamcenter Visualization requirements**

Product Master Management uses Teamcenter Visualization for visualizing parts and products. The current release of Product Master Management supports Teamcenter Visualization 10.1.5 only. Teamcenter Visualization 11.x is not supported.

**License requirements**

You must set the `SPLM_LICENSE_SERVER` environment variable to point to the license server that contains your Product Master Management licenses; this environment variable must include the host and port values of the server.

For more information about installing corporate licenses, see Teamcenter *UNIX and Linux Server Installation* or *Windows Server Installation*.

Product Master Management uses a named user licensing system. You purchase the number of **Author** and **Consumer** licenses necessary to support the maximum number of concurrent users who will log on to the system. These named user licenses are not compatible or interchangeable with the named user licenses that are installed on the Teamcenter system.

When the administrator creates a new Product Master Management user, the system checks the total number of active users and compares this value with the maximum number of **Author** and **Consumer** licenses available. If the maximum number of licenses is reached, the new user is not created and the system displays an error message indicating that more licenses must be obtained or some existing user accounts must be deactivated. The administrator can optionally configure a warning message to be displayed when a specified number of licenses is still available; by default, this message appears when only 20 licenses are available.
Chapter 3: What's new in 10.1.6?

Using the Variant Configuration view

You (as a BOM analyst or BOM reviewer) can use the order string or the Variant Configuration view to specify a particular model (LX, VX, or sport) of an automobile and a combination of variant options used to define a particular configuration. Variant options may include options such as body type (sedan, coupe, or hatchback), engine type (1.4L, 1.6L, or 2.0L), and fuel type (gasoline or diesel).

In 10.1.6, the Variant Configuration view is available from Engineering Solve, Plant Solve, Market Solve, Spatial Search, and Line Of Usage Carryover views.

After you successfully perform a solve, the saved variant rule persists the complete expression and you can use it later for a solve or any other solve-related operation. When you select a variant rule from the Variant Rule list, the expression associated with the selected variant rule is automatically populated in the Order String field.

The Variant Configuration view cannot read an expression associated with an existing tracking model that is defined in the previous release. Therefore, if you load a tracking model defined in the previous release, the associated expression is not opened in the Variant Configuration view.

For more information, see Managing Your Product Master.

Creating multiple color parts and color LOUs using a single color rule

You can now simultaneously create several color parts or color lines of usage (LOUs), using a single color rule. You can create color rules independent of the Less Finish parts and add (or remove) multiple Less Finish parts later. You can perform the following tasks:

- Associate Less Finish parts to a color rule.
- Disassociate Less Finish parts from a color rule.
- View color rule attributes such as associated Less Finish parts, color parts, and color LOUs.
- Create multiple color parts and color LOUs.

For more information, see Managing Your Product Master.

Customizing revision rules for product validations

When a BOM engineer authors data, for example, creates or updates a LOU using variant options, Product Configurator validates whether the variant options are valid or invalid. This is based on the variant options used to define a particular configuration and the revision rule values.
These values are defined in the **RevisionRulesForOperationsNVList** name-value list of the **conditions.xml** file in Product Master Management. The default values for the revision rules are as follows:

<table>
<thead>
<tr>
<th>Revision rules</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create, Update, BOMSolve, TransferCorp Group, and SpatialSearch</td>
<td>Any Status; Working</td>
</tr>
<tr>
<td>PackageCommit, PackageCommit DryRun, Carryover, and LouSolution Query OrSolve</td>
<td>Any Status; No Working</td>
</tr>
</tbody>
</table>

**Note**

Product Master Management supports only **Any Status; Working**, **Any Status; No Working**, and **Working; Any Status** revision rule status.

You (as a customizer) can customize the **RevisionRulesForOperationsNVList** name-value list in the **conditions.xml** file to include custom revision rules.

Example:

<table>
<thead>
<tr>
<th>Model and status</th>
<th>Existing parts and status</th>
<th>Existing LOUs and status</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1 Model1 Public</td>
<td>W19 19&quot; Wheel Public</td>
<td>LOU1 Part1 M1 and W19 Public</td>
</tr>
<tr>
<td>M2 Model2 Public</td>
<td>W20 20&quot; Wheel Public</td>
<td>LOU2 Part2 M2 and W20 Public</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model and status</th>
<th>New part and status</th>
<th>New LOU and status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>W21 21&quot; Wheel WIP</td>
<td>LOU3 Part3 M2 and W21 WIP</td>
</tr>
</tbody>
</table>

The BOM engineer uses Product Configurator to validate LOU1 and LOU2 with the **Public** status using the **Any status; not working** revision rule.

Let us assume that a new 21-inch wheel is introduced in the wheel option family with the status as **WIP**. Once informed of the new wheel solution, the BOM engineer creates **Part3** and authors LOU3 for **Model2**. Since the new wheel has a **WIP** status, the BOM engineer can validate this new LOU by launching a BOM solve and performing a solve for **Model2** using the **Any status; working** revision rule.

For more information, see *Configuring and Customizing Product Master Management*.

### Updating BOM items to previous or future dates

BOM items such as parts, LOUs, LOAs, and LOFs and administration items such as EWO, CODPWO, and ASRCODWO are referred to as BOM items. The condition **IsPastDateUpdateAllowedForBomItems**, which is site specific, allows engineers, procurement personnel, and aftersales engineers to create or update these BOM items with a previous or future date.
Let us assume a scenario where the procurement personnel receives a PWO and creates a CODPWO with a changeover date (COD) of Jan 01, 2017 for creating procurement records. The plant user exports this CODPWO on Jan 10, 2017. Due to some inventory constraints, this plant can use some parts only from Jan 15, 2017. The system does not allow the user to update a COD on a CODPWO if the date has passed. In such a scenario, if the IsPastDateUpdateAllowedForBomItems condition is enabled, the plant user can run a bulk update (if authorized) and update all the procurement records for the plant to start using the parts with the new date. For this, the plant user specifies the current effective date as Jan 01, 2017, and the new effective date as Jan 15, 2017, in the bulk update operation.

By default, the IsPastDateUpdateAllowedForBomItems condition in the tcbom_server\bin\perpetualaddon\conditions.xml file is enabled to allow users to create BOM items with previous or future dates.

For more information, see Configuring and Customizing Product Master Management.

### Customizing part numbers and part names for Color parts

In Product Master Manager, when you create a Color part based on a Less Finish part, the system automatically assigns the part number and the part name of the Less Finish part to the Color part you are creating.

By default, the part number for the Color part is a combination of the Part Number value from the Less Finish Part view and the Group Name value from the Color Matrix view. Similarly, the part name for the Color part is a combination of the Part Name value from the Less Finish Part view and the Group Name value from the Color Matrix view, separated by a hyphen.

For example, for the part name T00001-AS, T00001 is the part number, - (hyphen) is the separator, and AS is the group name for aftersales.

You can customize the Color part number or part name by adding attributes from the Less Finish Part, Color Matrix, or Color Appearance views.

For more information, see Configuring and Customizing Product Master Management.

### Migrating color BOM data

Use the colorbom_migration utility to migrate color BOM data from a version prior to Product Master Management 10.1.6 to the latest major version.

Run this utility after you migrate Teamcenter and Product Master Management data and after you rebuild the Product Master Management metadata.

For more information, see Installing and Upgrading Product Master Management.
Chapter 4: Product release notes

Server and database issues

This section contains release notes pertaining to the installation, administration, and configuration of the servers and database in Product Master Management.

• The Product Master Management server crashes when a multiedit operation is attempted on large datasets

When a multiedit operation is performed on large datasets, the Product Master Management server crashes.

How to Work Around or Avoid

As the scale of the data increases, the memory usage increases, affecting system performance. Therefore, reduce the size of the dataset and perform the multiedit operation.

• System responds slowly

Users may sometimes observe that the system is responding slowly.

How to Work Around or Avoid

To resolve such problems, the site administrator should perform either of the following:

o Contact the database administrator for a detailed analysis and resolution of the problem.

o Run the Compute_Histograms.sql script to enable the Oracle cost-based optimizer and gather statistics of data distribution for each table. These statistics enable the cost-based optimizer to create the optimal execution plan for database requests. This script is supplied with Product Master Management. It should be run periodically, after any upgrade, and after a significant number of updates such as carryover operations.

o Ensure that the logs are written either to a local disk or a storage device and not to NFS drive locations on other systems.

• Unable to encrypt the TcBOM string error message

The following error message is displayed while installing Product Master Management:

General Exception
Description
Unable to encrypt TcBOM string

How to Work Around or Avoid

Ensure that the Oracle instant client is installed. Add it in the path to the tencrypt executable as follows, in a command window:

1. Change to the path of the Product Master Management server installation:

    cd path-to-usage-server-installation\install
2. Set the path of the Oracle instant client:
   
   path=path to Product Master Management server installation\oracle_client\client;%path%

3. Enter the following:

   tem.bat

   Teamcenter Environment Manager (TEM) should resume the installation from the point it terminated.

   • **Oracle error 11799331 (timeout error) causes a BOM solve to take a long time**

   Oracle error 11799331 may cause a BOM solve to take a long time, resulting in a timeout error when using the Teamcenter rich client. The user may not get any results at the end of the solve.

   **How to Work Around or Avoid**

   1. Log on to the database as a system user.

   2. Run the following SQL query to check the current value of the `_gby_hash_aggregation_enabled` parameter.

      SQL>select value from v$parameter where name='&_gby_hash_aggregation_enabled';

   3. Run the following SQL command to set the `_gby_hash_aggregation_enabled` parameter:

      SQL>alter system set "&_gby_hash_aggregation_enabled"=false;
      SQL>alter session set "&_gby_hash_aggregation_enabled" = FALSE;
      SQL>commit;

      You may not see any result at the end of the above SQL command. To confirm that the SQL command executed correctly, run the following command:

      SQL>select value from v$parameter where name='&_gby_hash_aggregation_enabled';

      __________________________________________

      VALUE

      __________________________________________

      FALSE

**Installation issues**

• **Product Master Management 10.1.3.1 to 10.1.6 upgrade is completed with an Oracle unique constraint error**

   The issue is because **ColorAddOn.sql** file is called in the upgrade process even though the current Product Master Management version has the color BOM solution installed. This file is called to set the coloraddon mode in the database. If this mode is already set, the system displays this error.

   **How to Work Around or Avoid**

   None. Calling the **ColorAddOn.sql** file more than once has no adverse effect on the database or the product.
• Teamcenter Integration Framework is not available in the kit specific to the AIX platform

Teamcenter Integration Framework is not available in the kit specific to the AIX platforms. However, you can install Teamcenter Integration Framework using the Linux or Solaris binaries since they are compatible with the AIX platforms.

How to Work Around or Avoid

1. Open the Teamcenter CD contents for either Linux or Solaris.

2. Navigate to the /tc directory.

3. Copy TcIntegrationFramework.zip to your local HPUX or AIX host.

4. To install Product Master Management, copy TclFPMMBundle.zip from the /tc directory to your local host.

5. Extract the contents of the TcIntegrationFramework.zip and TclFPMMBundle.zip files to the install location.

6. Open the file available at TCIF_unzipped_location/tcif/container/bin/tcenv and set the JAVA_HOME location to the location of a supported version of Java.

   ```bash
   #!/bin/sh
   export JAVA_HOME="<location of supported JAVA version>"
   ```

   It is preferable to use jdk.1.7.0_17 because Java 8 is not supported for Teamcenter Integration Framework.

7. Locate ITClF_unzipped_location/tcif/container/bin/trun and run trun to start Teamcenter Integration Framework.

• Set the SPLM_LICENSE_SERVER variable during installation

If the user’s $HOME/.profile or $HOME/.login files are not readable, these files are not updated. On some systems, if the user’s home directory is located on a mount point, the Java virtual machine may not consider the file readable, depending on its mount characteristics. In these cases, these files are not updated.

How to Work Around or Avoid

Edit $HOME/.profile and/or $HOME/.login and set the SPLM_LICENSE_SERVER environment variable.

Customization issues

• The condition to validate the value of a subobject attribute specified for a default part property is not being processed

This condition is not processed while creating, updating, or deleting the subobject.

How to Work Around or Avoid

You must add the following entry to the LessFinishTableNVList name-value list present in the perpetualaddon/conditions.xml file:
Though the name-value list is currently non-customizable, you can modify the list.

- **Perform customization for owning corporate group check**

  To configure an owning corporate group check for parts, LOUs, LOAs, LOFs and their procurement records by using business rules in the system, perform customization for the following actions:
  - Create
  - Update
  - Package Commit
  - Package Commit Dry Run
  - Copy New Version
  - Continue

  Refer to the `conditions.xml` file for the syntax to be used for the various actions that are supported in the system.

  **Sample customization for the Copy New Version action:**

  ```xml
  <MetaNVList MemberName="PartMasterInfo::PartSpecification" Value="LessFinishPartMasterVersionNVList" Action="Add"/>
  
  <MetaNVList MemberName="BusinessConditionMap" Action="Modify">
    <MetaNVListMember Name="LineOfAssemblyInfo::CopyNewVersion" Value="LOA_CopyNewVersion_All_Maturity_CondList_DT" Action="Add"/>
  </MetaNVList>

  <ConditionList ConditionListName="LOA_CopyNewVersion_All_Maturity_CondList_1" AndOrOr="A" Description="A list of conditions for LOA CopyNewVersion action." Published="TRUE" Action="Add">
    <Condition ConditionName="OwningCorpGroupForLOA" Action="Add"/>
  </ConditionList>
  ```
Administration issues

• **An error occurs while performing a solution group usage (SGU) procurement search**

  If you are using Oracle 12.1.0.2 as the database for Product Master Management 10.1.5, an error occurs while performing a solution group usage (SGU) procurement search using a line of usage (LOU) or the part number.

  **How to Work Around or Avoid**

  1. Stop all Product Master Management servers.

  2. Log on with SQL Plus to Oracle server as follows:

     sqlplus system/<password>@//<oracle server machine>/<oracle instance name>

  3. Execute the following SQL command:

     alter system set "_push_join_predicate" = false;

  4. Execute the COMMIT statement to end the current transaction.

  5. Log off SQL Plus and restart the Product Master Management servers.

• **Organizational unit-specific attributes on a lower part in WIP cannot be updated**

  You can define security rules that restrict access to business items that belong to different Organizational Units (OUs) for users. You can also relax these rules under specific conditions. For example, a user may be granted access to a part that belongs to a different OU if the user creates an LOF that references the part.

  Therefore, a user may be unable to update a part that belongs to a different OU if the user's LOF is included in a package for review or is in a state denoting that the LOF is publicly available.

  **How to Work Around or Avoid**

  Make the LOF editable before updating a part that belongs to a different OU.

• **Commit actions for a large number of lines do not proceed**

  The administrator cannot limit the maximum number of LOU or LOA lines that can be committed in a single operation. If the number of lines exceeds the capacity of the server, it may crash.

  By default, commit actions with more than 300 lines for interactive operations or 900 lines for noninteractive operations do not proceed. The user sees a message on the Product Master Manager that the selection exceeds the maximum permissible limit.

  **How to Work Around or Avoid**

  If your site has sufficient hardware capacity to process additional lines, the administrator can configure limits for each WIP action type separately, as follows:

  1. In the server installation, locate the conditions.xml file.

  2. To configure the limits for interactive actions, edit the `ClassAltem_Commit_Maximum_List_Interactive` tag. This tag contains values that specify limits for lines having a WIP action (Add, Cpy, Cre, Rmv, and Del). For example, to specify a limit for the Cpy action, edit the following value:
3. To configure the limits for noninteractive actions, edit the `ClassAltem_Commit_Maximum_List_NonInteractive` tag. This tag contains values that specify limits for lines having a WIP action (Add, Cpy, Cre, Rmv, and Del), as described in the previous step.

4. Run the `metadatarebuild` utility as described in *Installing and Upgrading Product Master Management* and restart the Product Master Management server.

**Product partition issues**

- **The error message displayed while releasing a package's contents to Public does not specify the exact cause of the error**

  While performing the Package Commit action to release a line of usage (LOU) to Public, an error can occur if:

  - the LOU is inactive.
  - the partition to which the LOU belongs, is not released.
  - the LOU expression does not fulfill the variant condition.

  However, the error message displayed is generic and does not specify the cause of the error.

  *How to Work Around or Avoid*

  - Ensure that the partition is released and realized for the product architecture model.
  - Ensure that the partition is in the **Active** state.
  - Ensure that the LOU expression fulfills the variant condition specified for the partition.

- **Updating a partition in the partition template does not reflect the updates in the product architecture model using that partition**

  Consider that a partition template hierarchy with partition A is released. A product architecture mode (PAM) using partition A is also released. Now, perform the following:

  1. Update partition A in the partition template and add child partitions to it.
  3. Go to PAM and select partition A, right-click and choose **Update Partition from Partition Template**.
  4. Select the revision rule and click **OK**.

  After updating the partition from the partition template, the child partitions are retrieved in the PAM but the parent partition (partition A) continues to display the older revision and the revision flag. When you select the PAM and click **Refresh**, it is not refreshed either.
How to Work Around or Avoid
Select PAM and press F5. The parent partition displays the correct revision, and the revision flag is not displayed. However, the child partitions are collapsed.

- **Product Master Management sync warning message in rich client**
  The following warning message is displayed in Teamcenter rich client during Product Master Management sync:
  
  The initial action was successful, but a subsequent task in the workflow may have failed

  *How to Work Around or Avoid*
  Ignore the warning message if the action completes successfully.

Engineering product master issues

- **The Type field of the Details view displays the item revision icon and the Relation field displays the value as -1 for an item with a dataset in My Teamcenter**
  This issue occurs when the Product Master Management and CAD-BOM Alignment applications are installed.

  *How to Work Around of Avoid*
  Uninstall the Product Master Management and CAD-BOM Alignment applications.

- **The mass of a part is rounded off to the nearest value when displayed on the user interface**
  The mass of a part is rounded off to the nearest value when displayed on the user interface. In some cases, the mass is displayed with trailing zeros. This is because, some of the default attribute values are stored as double data type. Due to a limitation of this data type, large precision values are either rounded off to the nearest value or appended with trailing zeros when displayed on the user interface. However, the values are correctly stored in the database. For example, if the value you enter is 666666.7777, the value is displayed as 666666.7777000001. However, the value saved in the database is 666666.7777.

- **A color rule can be released without associating a color expression to it**
  *How to Work Around or Avoid*
  You must create your own workflows and perform additional validations, as required.

- **Attribute compare and structure compare features are not supported for color product master**
  Attribute compare and structure compare features are not supported for color BOM constructs.

- **Multi-select families are not supported**
  The summary families are marked as multi-select families by default. However, Product Master Management does not support multi-select families.

  *How to Work Around or Avoid*
  While creating a summary family in Product Configurator, select **Multi-select as No.**
• **A newly selected column is sent to the available columns list while trying to move the column to a higher position**
  1. In a grid result, right-click a column and click **Choose Columns**.
  2. In the **Choose Columns** dialog box, select a column from **Available Columns** and move it to **Selected Columns**.
  3. In **Selected Columns**, select the newly added column along with a few other columns and click **Move up**.
    The newly added column is moved back to **Available Columns**.

*How to Work Around or Avoid*

This issue occurs only for the first time when **Default Column Configuration** is set. Once the selected column is moved back to **Available Columns** and you add it again to **Selected Columns**, the column moves up to a higher position in the list correctly.

• **Clearing check boxes while visualizing an assembly component tree responds incorrectly**

While visualizing an engineering part breakdown result, clearing the checkboxes corresponding to the leaf nodes of a structure with a single subassembly does not work correctly. Clearing the checkboxes does not remove the corresponding CAD from the viewer. However, this issue does not occur if there are multiple subassemblies in the structure.

*How to Work Around or Avoid*

Select the CAD that you do not want to visualize in the viewer, right-click, and select **Turn Off**.

• **Wrong result is displayed on updating the expression in a usage authoring matrix**

In a usage authoring matrix (UAM), if you update the expression of a line of usage (LOU) for a split line, the matrix does not display the updated expression.

*How to Work Around or Avoid*

Although the UAM does not display the updated expression, the logical expression displayed in the matrix is correct.

• **An error is displayed while updating the engineering work order of WIP data**

While updating the engineering work order (EWO) of the WIP data, an error is displayed if you update the EWO of the line of usage (LOU), line of assembly (LOA), and line of fabrication (LOF) before updating the EWO of the part.

*How to Work Around or Avoid*

Update the EWO of the part before updating the EWO of the LOU, LOA, and LOF.

• **A blank error message is displayed on session timeout**

In the SSO mode configuration of the Product Master Management server, if a session times out while the Product Master Management application is open in the Teamcenter client, and you log on to Teamcenter again, a blank error message is displayed.

*How to Work Around or Avoid*

No workaround is available.
• **Specifying just the first name in the User extended find dialog box does not return results**
  
  While adding a User Distribution Code to parts, on the User extended find dialog box, if the search criterion specified is only the user’s first name, the search results are not returned. The person assigning the distribution code may not know the UserID but does know the user’s first name and last name.

  *How to Work Around or Avoid*

  In the conditions.xml file, the WildCardAttrListsForUser metaVVlist contains a list of user attributes, any of which can be used for search. You can customize this list. For example, to search for a user based on just the first or the last name or both, add entries in the WildCardAttrListsForUser list as follows:

  ```xml
  <MetaVVList MetaVVListName="WildCardAttrListsForUser"
  Description="....." Published="TRUE">
  <MetaVVListMember Value="UUser.UserFirstName" />
  <MetaVVListMember Value="UUser.UserTUID" />
  <MetaVVListMember Value="UUser.UserFirstName" />
  <MetaVVListMember Value="UUser.UserLastName" />
  </MetaVVList>
  ```

• **Changing the Edit style of a column changes the background color of a WIP/package line to white**

  In the search results view, if there are WIP and package lines and you right-click the column headings, select *Edit style*, and select *OK* without changing any settings in the dialog box, the background color of that column is set to white.

  *How to Work Around or Avoid*

  To revert, right-click the column header, choose *Edit style*, and select *Clear*.

• **The attributes of a custom part type cannot be updated in the Search Results tab**

  If you search for All Parts in the PartType list on the Search Part toolbar, you can update only the common attributes through the search results tab and the part number tab. If you double-click a part record of a part that belongs to a custom Part Type, the part number tab does not display any attributes specific to the Part Type. It displays only the attributes that are common to all parts.

  *How to Work Around or Avoid*

  To update attributes of a part that belongs to a custom Part Type, search for that Part Type through the PartType list on the Search tab. You can view and update the modifiable attributes from the Search Results tab.

• **The corporate group for items in WIP cannot be changed**

  When you create an item in your WIP, Product Master Management does not allow you to change its corporate group.

  *How to Work Around or Avoid*

  Purge the newly created item and recreate it with the correct corporate group.

• **Searches fail to find numeric values**

  Searches in numeric fields may fail to find data, even though valid data is available.

  *How to Work Around or Avoid*
Search criteria for data in numeric fields must be formatted exactly as displayed on the Product Master Manager user interface. This ensures that the search criteria match the format of the data as stored in the database. For example, when searching for the value 0.001, you must enter the criteria as .001.

- **Changed column positions are displayed in the original position in the Color Rule Matrix view**
  1. Select any color rule.
  2. Right-click and choose **Column**.
  3. Select any parameter such as **Less finish** part number or **Group** name and move it upwards and then click **Done**.
  4. Open the **Color Rule Matrix** view or apply filters.
  5. Verify the column sequence.
     - The column is displayed in the original position and not as per the newly applied position.

  *How to Work Around or Avoid*
  None

- **Refresh From PMM gives error after the Part is continued**
  When a discontinued Part is continued and you perform a **Refresh from PMM** operation on the recipe node of an existing BVR, the correct BVR is generated despite the **Invalid Tag NULL** error message.

  *How to Work Around or Avoid*
  Close the **MPP** perspective and reload the BVR structure.

- **The Variant Configuration view title is displayed in English irrespective of the locale**
  The **Variant Configuration** view title is displayed in English irrespective of the locale in which rich client is launched.

  *How to Work Around or Avoid*
  None

- **Tracking models do not load option values after upgrading to a newer version**
  The tracking models do not load option values after upgrading to a newer version.

  *How to Work Around or Avoid*
  You can manually copy the option string and append it with the model designator, using the & separator; OR
  You can manually create the saved variant rule (SVR) for the complete expression, that is, model and options, and then save the SVR with the tracking model.

- **History records are wrongly displayed in the Less Finish Part grid of the color rule**
  History records are wrongly displayed in the **Less Finish Part** grid of the color rule.
How to Work Around or Avoid

None

Procurement coding issues

- **An error is displayed if a normal procurement work order is used for updating procurement records**

  If you use a normal procurement work order (PWO or PWOCOD) for making independent updates to procurement records, an error is displayed in a few scenarios. Independent updates refer to those updates which are not because of a change in the engineering data. Consider that there are two versions of an engineering part and one procurement record is created for one version of the engineering part. You want to discontinue the procurement record. To discontinue, if you use a normal procurement work order, an error is displayed.

  *How to Work Around or Avoid*

  Use standalone procurement work orders for independent updates to procurement records.

- **Procurement search views do not have the EWO field in the Attributes section**

  In procurement search views such as Search Part Procurement view, Search LOA Procurement view, Search LOU Procurement view, and Search LOF Procurement view, there is no EWO field in which an EWO value can be specified to search for procurement records.

  *How to Work Around or Avoid*

  Search for a PWO related to an EWO by specifying the EWO from the Product Master Manager Administration application, and run the PWO Where Used report for the obtained PWO to obtain the desired records.

Aftersales product master issues

- **An aftersales part cannot be derived by searching for all parts**

  You can derive an aftersales part from an existing aftersales part in Public. However, if you perform the **Object Derive** action from the **Part Master Results** view, the **Derive a Part** dialog box does not list the part number type and corporate group information related to the aftersales part.

  *How to Work Around or Avoid*

  Search for aftersales parts and perform the **Object Derive** action from the **Aftersales Part Results** view.

- **An error is displayed if normal a aftersales work order is used for updating aftersales records**

  If you use a normal aftersales work order (ASRWO or ASRCODWO) for making independent updates to aftersales records, an error is displayed in few scenarios. Independent updates are those updates which are not because of a change in the engineering data. Consider that there are two versions of an engineering part and one aftersales record is created for one version of
the engineering part. You want to discontinue the aftersales record. To discontinue, if you use a normal aftersales work order, an error is displayed.

*How to Work Around or Avoid*

Use standalone aftersales work orders for independent updates to aftersales records.

**CAD-BOM alignment issues**

- The accountability check to compare the updated layout with the original installation assembly does not display the differences between the source and target CAD occurrence

*How to Work Around or Avoid*

Perform an accountability check and update the original assembly with the modified CAD occurrence using Teamcenter Multi-Structure Manager or Manufacturing Process Planner. To do so:

1. In My Teamcenter, search for the layout that has the updated CAD. Expand the layout item revision, right-click the layout CAD structure, and choose *Send To* → *Teamcenter Multi-Structure Manager* or *Manufacturing Process Planner*.

2. In My Teamcenter, search for the version of the CAD you want to compare the updated CAD with. Expand the CAD item revision, right-click the CAD structure, and choose *Send To* → *Teamcenter Multi-Structure Manager* or *Manufacturing Process Planner*.

3. Select the layout and click *Tools* → *Accountability Check* → *Accountability Check*. The layout is added as the source object in the *Accountability Check* dialog box.

4. Select the CAD structure and in the *Accountability Check* dialog box, click *Set/Add current selection* in the *Target objects* section.

5. Click *OK*. The comparison results are displayed in the *Accountability Check Results* view.

6. In this view, select the CAD occurrence from the target object that you want to update, right-click and choose *Propagate*. The CAD updates are passed along from the layout to the target structure. To view the updated structure, select the CAD installation assembly and click *Open in NX*. 
• Certain arguments of the PMMBOMWRITER utility are not supported

The following arguments of the PMMBOMWRITER utility are not supported:

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-g=&lt;group name&gt;]</td>
<td>Specifies the group associated with [-u=&lt;user id&gt;].</td>
</tr>
<tr>
<td>[-pmmscoitem=&lt;pmmsco-item-name&gt;]</td>
<td>Specifies the item ID of the Product Master Management structure context object (PMMSCO). This argument is mutually exclusive of <code>-pmmsco_key</code> and <code>-bomsolvef</code> arguments.</td>
</tr>
<tr>
<td>[-pmmscokey=&lt;item-key&gt;]</td>
<td>Specifies the string used for identifying a PMMSCO. This argument is used instead of the [-item] and [-rev] arguments to specify the PMMSCO.</td>
</tr>
<tr>
<td>[-pmmscorev=&lt;revision&gt;]</td>
<td>Specifies the item revision for the PMMSCO.</td>
</tr>
<tr>
<td>[-pmmscotype=STATIC</td>
<td>dynamic]</td>
</tr>
</tbody>
</table>

• A CAD occurrence cannot be realigned to a line of assembly version

A CAD occurrence can be shared across multiple version of a line of assembly (LOA). If you unalign the CAD occurrence from an LOA version, you are cannot realign the same CAD occurrence to the LOA. However, you can align a different CAD occurrence to that LOA.

How to Work Around or Avoid

1. Logically delete the LOA version to which you want to realign the CAD occurrence.

2. Select the previous version of the logically deleted LOA, right-click, and select Copy Version.

3. In the Copy Version of Line Of Assembly dialog box, enter the effective in date of the logically deleted LOA version in Engineering Effective In Date and enter the End Of Time (EOT) date in Engineering Effective Out Date.

• A wrong result is displayed on updating the expression in a solution authoring matrix

In a solution authoring matrix (SAM), if you update the solution expression on a split line, the matrix does not display the updated expression.

How to Work Around or Avoid

Although the SAM does not display the updated expression, the logical expression displayed in the matrix is correct.

• Revision rule not working in the BOM View of CAD-BOM Alignment

1. Create a CAD structure and release it, for example, Rev A.

2. Create an ACT structure and align it with the CAD structure.

3. Revise the CAD structure, for example, Rev B.
4. In CAD-BOM Alignment, use the **ACT Breakdown** view to find the aligned CAD structure.

5. Open the CAD structure in the **BOM View**.

The top assembly shows **Rev A** and other revised parts show **Rev B**. If you try to set the revision rule as **Latest Released**, it doesn't work.

**How to Work Around or Avoid**

None

- **Correct results are not shown for ACT breakdown or while refreshing the ACT lines in some cases**

Correct results are not shown for ACT breakdown or while refreshing the ACT lines in some cases.

**How to Work Around or Avoid**

Product Master Management data is cached for performance reasons. Due to this, you have to perform the ACT breakdown again or refresh the ACT lines again to see the correct results.

- **Quantity update issue when you carryover an ACT structure**

  1. Create an ACT structure (source structure) with no CAD alignment.

  2. Carryover the source ACT structure to a target structure.

  3. After carryover, update the quantity in WIP, and then commit the LOAs.

  4. In CAD-BOM Alignment, perform the ACT breakdown of the target ACT structure.

The updated quantity is not reflected in the target ACT structure. After you unpack the structure, it shows the incorrect occurrence quantity. In addition, if the source ACT structure is aligned with the CAD structure, then the updated quantity on the target ACT structure is reflected in **Quantity** column, but not in the **Assembly Component Tree Line** column display value. Moreover, in this case, you cannot unpack the structure.

**How to Work Around or Avoid**

None

- **Changes made to CAD occurrence in Layout are not propagated to main installation assembly**

  1. Perform **Spatial Search** after selecting **Add to Layout**.

     The spatial search results show the layout and the background CAD occurrences.

  2. Select the top item in the layout and click **Open in NX**.

  3. In NX, move any part and click **Save**.

  4. In CAD-BOM Alignment, select the top item in the layout and choose **Tools → Accountability Check → Accountability Check**.

  5. Select the top item in the CAD installation assembly as target and click **OK**.
The **Accountability Check Results** view displays the differences between the source and the target.

6. Select the target line and right-click to choose **Propagate**.
   
   No error message is displayed.

7. Select the CAD installation assembly and click **Open in NX**.

   The changes made to the CAD occurrence in the layout are not propagated to the main installation assembly.

   **How to Work Around or Avoid**

   Perform the accountability check and propagate the CAD occurrence from the layout to the main installation assembly from Multi-Structure Manager or Manufacturing Process Planner.

   The procedure is as follows:

   1. In CAD-BOM Alignment, select the top item in the layout and send to Multi-Structure Manager or Manufacturing Process Planner.

   2. Select the main top item in the installation assembly and send to Multi-Structure Manager or Manufacturing Process Planner.

   3. Select the top item in the layout and choose **Tools → Accountability Check → Accountability Check/Advance Accountability Check**.

   4. In the **Accountability Check** window, select the top item in the CAD installation assembly and click **OK**.
      
      The **Accountability Check Results** view displays the differences between the source and the target.

   5. Select the target line and right-click to choose **Propagate**.

   6. Select the CAD installation assembly and click **Open in NX**.

   • **LOU carryover fails if the configurator data is not released**
      
      LOU carryover fails if the configurator data is not released.

      **How to Work Around or Avoid**

      Release the configurator data along with all allocations and availability. You can carryover only released data.

**Visualization issues**

• **Visualization issue due to incorrect configuration of multisite**

   If you have an incorrect configuration of Multi-Site, the first attempt to publish displays the correct error message, while the second attempt displays the **Publish Successful** box.

   **How to Work Around or Avoid**
If you cannot visualize the aligned CAD (CAD structure) object on other sites, manually remote export the CAD data to other sites in the Multi-Site configuration.

- **ACT visualization CAD subassembly to ACT node under subassembly alignment issue**
  1. Select a CAD subassembly aligned to an ACT node under an ACT subassembly and perform an ACT visualization.
     
     The CAD JT is visible in the Graphics view.
  2. Uncheck the root node of the ACT structure.

Issues are as follows:

1. The ACT Node to which the subassembly is aligned is not unchecked in the ACT tree structure.

2. In the viewer tree panel, the viewable node of the ACT node to which the CAD subassembly is aligned is visible under the root node instead of the same tree hierarchy as that of ACT structure.

*How to Work Around or Avoid*

There is no work around for the first issue. For the second issue, use the following procedure:

1. Select a CAD subassembly aligned to an ACT node under an ACT subassembly and perform an ACT visualization.

   The CAD JT is visible in the Graphics view.

2. In the Graphics view, right-click and choose Blank All.

**Localization issues**

This section contains release notes pertaining to issues that occur after localizing the Product Master Manager, Product Master Manager Administration, and CAD-BOM Alignment applications.

- **A UTF-8 encoded file cannot be created by using the Byte Order Mark alone**

You cannot create a UTF-8 encoded file by using the Byte Order Mark alone.

Localized UTF-8 encoded metadata XML files can be validated using

`http://<host>[:<port>]/metadatarebuild?validatexml`

The `metadatarebuild?validatexml` option does not work if you write a UTF-8-encoded file using just the Byte Order Mark.

*How to Work Around or Avoid*

Create a UTF-8 encoded file without the Byte Order Mark or with the Byte Order Mark and an XML Header (`<?xml version="1.0" encoding="utf-8" ?>`).
The following issues have been resolved since the 10.1.6 version of Product Master Management was released.

<table>
<thead>
<tr>
<th>Problem report number</th>
<th>Short description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7446881</td>
<td>Unable to make an attribute non-editable in the Product Master Management graphical user interface (GUI).</td>
</tr>
<tr>
<td>7477516</td>
<td>The Assembly Component Tree Line (ACT) alignment from the ACTLine context menu displays an error.</td>
</tr>
<tr>
<td>7494011</td>
<td>The CAD-BOM/Product Master Management ACT alignment operation fails when aligned in context.</td>
</tr>
<tr>
<td>7514376</td>
<td>On search pages, clicking <strong>Clear</strong> should clear all the fields.</td>
</tr>
<tr>
<td>7548686</td>
<td>Not able to create or import multiple custom subobjects in Product Master Management.</td>
</tr>
<tr>
<td>7576289</td>
<td>The <strong>Undo</strong> schema script converts floating data type to number data type.</td>
</tr>
<tr>
<td>8503354</td>
<td>Some characters in the product context ID/rev cause Solve Expression save failure.</td>
</tr>
<tr>
<td>8506313</td>
<td>Press <strong>Enter</strong> to perform search is not allowed in color/gloss/texture/color specification.</td>
</tr>
<tr>
<td>8508911</td>
<td>The <strong>Custom Part Type</strong> grid displays an error while showing search results.</td>
</tr>
<tr>
<td>8513890</td>
<td>The COD of COWPWO cannot be updated after the date of COD has passed.</td>
</tr>
</tbody>
</table>

For details about the resolution of these issues, refer to the TAC database.
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Additional steps for customizing the business rule validation on subobjects

You (as a customizer) can create a subobject in the context of a main object and add a relationship between the main object and the subobject. For example, you can create an engineer or note as a subobject to a main object such as an LOA, LOU, or LOF. This relationship is represented, using a column in both database tables, and both database tables have a column with the same value that represents this relationship.

After you create subobjects and add relationships to main objects, you can configure business rules to validate the subobjects. For example, you can create a custom business validation rule that makes it mandatory for an engineer (subobject) to be active or belong to a master corporate group when a LOU (main object) containing the subobject is committed.

The `BusinessConditionSubObjNVMap` list is a mandatory meta name-value list in the default `conditions.xml` file that maps admin object actions (create or update) to the business rule condition map for subobjects. If you modify the `BusinessConditionSubObjNVMap` list to add business rules validation for subobjects, you must add these subobjects to the relevant main object meta name-value lists as well. Let us assume that you have added subobjects such as LOUEngineer, PartNOTE, LOANote, or LOFNote to the `BusinessConditionSubObjNVMap` list. In such cases, you must add these subobjects to the main object meta name-value lists, including `PartVersionAndTableNVList`, `LessFinishLOUTableNVList`, `LessFinishTableNVList`, and `AsmLessFinishTableNVList` respectively.

An example of `BusinessConditionSubObjNVMap` list in `conditions.xml` file with entries for LOUEngineer, PartNOTE, LOANote, and LOFNote:

```xml
<MetaNVList MetaNVListName="BusinessConditionSubObjNVMap" Action="Modify"
    Description="The List contains adminobject::action vs business rules condition map for subobjects.">
    <MetaNVListMember Name="LineOfUsageInfo::LOUEngineer::Update"
        Value="LineOfUsageLOUEngineerCond" Action="Add"/>
    <MetaNVListMember Name="PartMasterInfo::PartNote::Update"
        Value="PartMasterInfoPartNoteUpdateCond" Action="Add"/>
    <MetaNVListMember Name="LineOfAssemblyInfo::LOANote::Update"
        Value="LineOfAssemblyLOANoteCond1" Action="Add"/>
    <MetaNVListMember Name="LineOfFabricationInfo::LOFNOTE::Update"
        Value="LineOfFabricationLOFNoteCond1" Action="Add"/>
</MetaNVList>
```

Given below are examples of main object lists that you must modify.

**PartVersionAndTableNVList list:**

```xml
<MetaNVList MetaNVListName="PartVersionAndTableNVList"
    Description="This map contains Main table name and context NV list.">
    <MetaNVListMember Name="LINEOFUSAGEINFO::LOUENGINEER"
        Value="LOUInfoPartVersionNVList"/>
    <MetaNVListMember Name="LINEOFASSEMBLYINFO::LOANOTE"
        Value="AsmLessFinishPartMasterVersionNVList"/>
    <MetaNVListMember Name="LineOfFabricationInfo::LOFNOTE"/>
</MetaNVList>
```
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Value="AsmLessFinishPartToUpperPartMasterVersionNVList" />
</MetaNVList>

**LessFinishLOUTableNVList list:**

<MetaNVList MetaNVListName="LessFinishLOUTableNVList"
Description="This map contains Main table name and context NV list.">
   <MetaNVListMember Name="LineOfUsageInfo::LOUENGINEER"
   Value="LessFinishLOUVersionNVList" />
</MetaNVList>

**LessFinishTableNVList list:**

<MetaNVList MetaNVListName="LessFinishTableNVList"
Description="This map contains Main table name and context NV list.">
   <MetaNVListMember Name="PartMasterInfo::PARTNOTE"
   Value="LessFinishPartMasterVersionNVList" />
   <MetaNVListMember Name="LineOfUsageInfo::LOUENGINEER"
   Value="LessFinishPartMasterVersionNVList" />
   <MetaNVListMember Name="LineOfAssemblyInfo::LOANOTE"
   Value="LessFinishPartMasterVersionNVList" />
   <MetaNVListMember Name="LineOfFabricationInfo::LOFNOTE"
   Value="LessFinishPartMasterVersionNVList" />
</MetaNVList>

**AsmLessFinishTableNVList list:**

<MetaNVList MetaNVListName="AsmLessFinishTableNVList"
Description="This map contains Main table name and context NV list.">
   <MetaNVListMember Name="LINEOFASSEMBLYINFO::LOANOTE"
   Value="AsmLessFinishPartMasterVersionNVList" />
   <MetaNVListMember Name="LineOfFabricationInfo::LOFNOTE"
   Value="AsmLessFinishPartMasterVersionNVList" />
</MetaNVList>
Chapter 7: Accessing Product Master Management documentation

Product Master Management documentation is available in Teamcenter help.
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