

MechworksPDM R23

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Behavior Changes

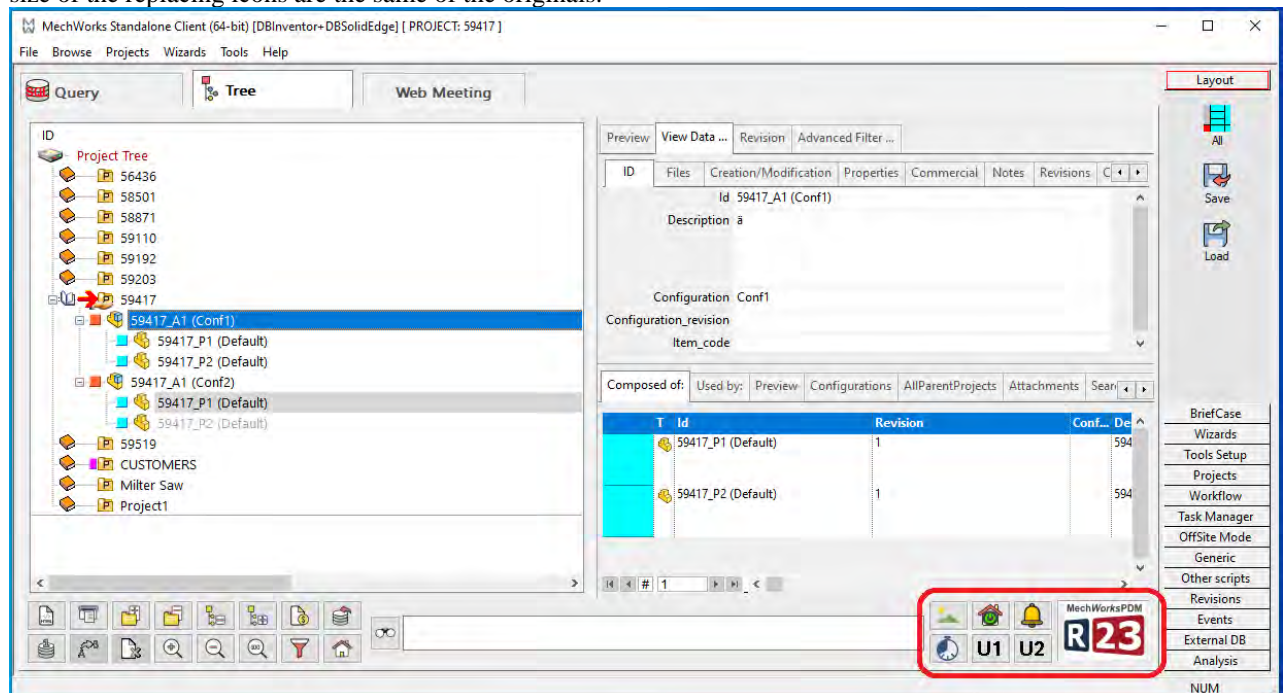
User Interface

Tree Page Menu Buttons

Six new Buttons have been introduced in the interface of the Tree Page:

- External Full Preview Button -> See chapter "External Full Preview"
- OffSite Mode Button -> When clicked enable/disable the OffSite Mode. It has the same behaviour of the "Toggle OffSite Mode" in the Shortcut Bar
- Notifications Button -> See chapter "Notification System"
- Task Executer Button -> When clicked start/stop the Task Executer window (enables the option User Options -> [X] Act As Task Executer). If the option User Options -> Act As Task Executer -> [X] Start Play automatically it will start executing the tasks.
- Custom User Button 1 -> When clicked it will fire the script GPP\LST\OnButtonBrowserCU1.lst (if exists) completely customizable by the users.
- Custom User Button 2 -> When clicked it will fire the script GPP\LST\OnButtonBrowserCU2.lst (if exists) completely customizable by the users.

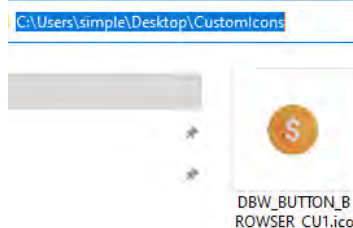
It is possible to customize the icons of Custom User Button 1 and 2 by replacing the file GPP\schema\IMG\DBW_BUTTON_BROWSER_CU1.ICO and GPP\schema\IMG\DBW_BUTTON_BROWSER_CU2.ICO with the desired ones. It is important that dimension and size of the replacing icons are the same of the originals.



Please note that after each PDM installation, the above icons in GPP\schema\IMG are overwritten by default, therefore to keep the custom icons it is required to perform just 2 steps.

As an example, suppose that an user wants to customize icon DBW_BUTTON_BROWSER_CU1.ICO, he/she needs to:

- 1) Save the icon in an external folder (e.g., C:\Users\simple\Desktop\CustomIcons)



- 2) Change the GPP/Schema/DBWUserDefinedPaths.txt with the path of the custom icon as follows

```

1 ;=====
2 ; DBWUserDefinedPaths.TXT
3 ;
4 ; Add an entry like in the example to load the file from custom location
5 ;
6 ;=====
7 ;
8 ;ALTPREVIEW.TXT = C:\ALTPREVIEW.TXT
9 ;DBW_BUTTON_BROWSER_CU1.ico = Z:\FILES\ICONS\celltower_48.ico
10
11

```

After an installation upgrade,



the customization won't be removed since the custom icon is saved externally.

Shortcut bar

Improved Shortcut bar tolerance to fault. It is now required the file dbwscbarXX_LARGE.bmp (in addition to the file dbwscbarXX.bmp already required) in order to properly load a custom bitmap for the Shortcut bar.

Registration Wizard

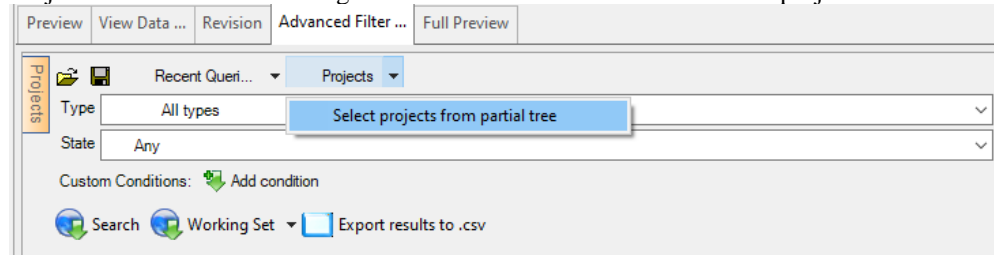
The option to check for duplicate documents has been hidden as checks were always taking place, as expected

Admin Tools

In Data Form fields management tools, fields set as locked by DBWorks (i.e. CONFIGURATION) cannot be set lower or upper case automatically

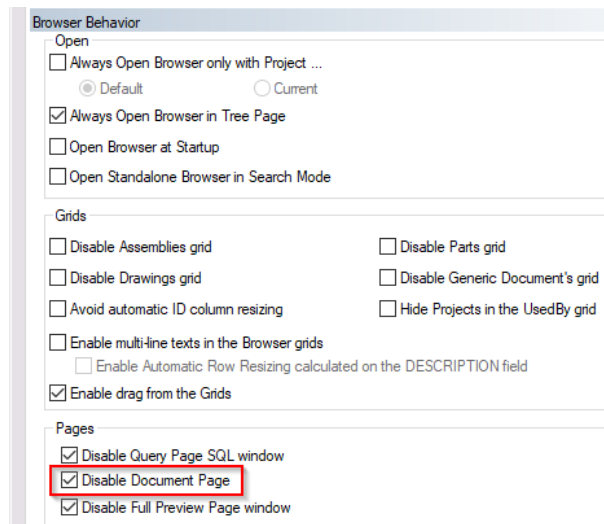
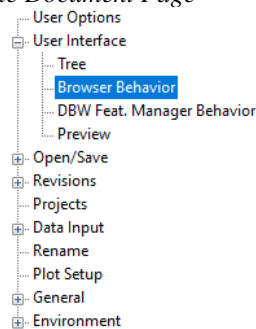
Advanced Filter

Projects can be selected loading the selection from the current set in the projects tree of the browser:

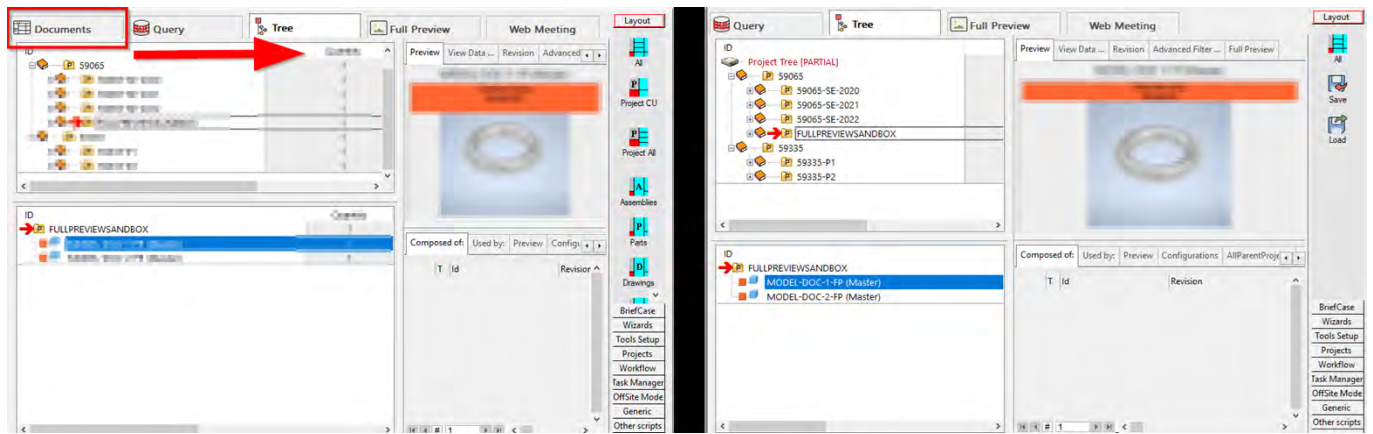


Document Page

If the user doesn't need to use the Document Page, by selecting option [x]User Interface->Browser Behaviour->Pages->Disable Document Page

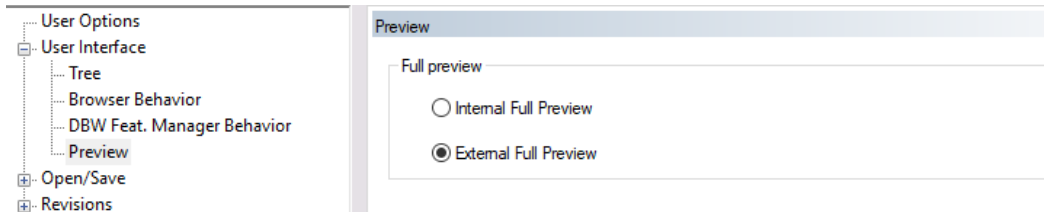


the Document Page will be no more visible and it won't be loaded at all.

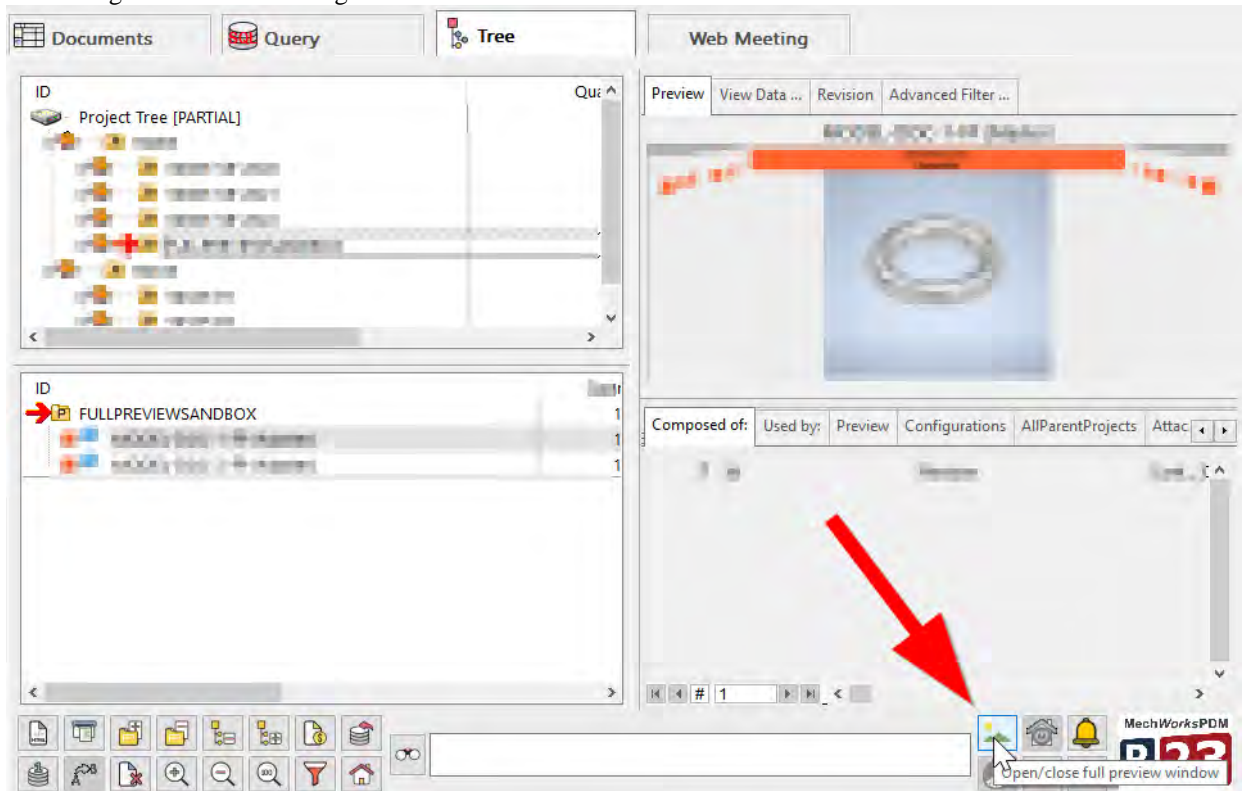


External Full Preview

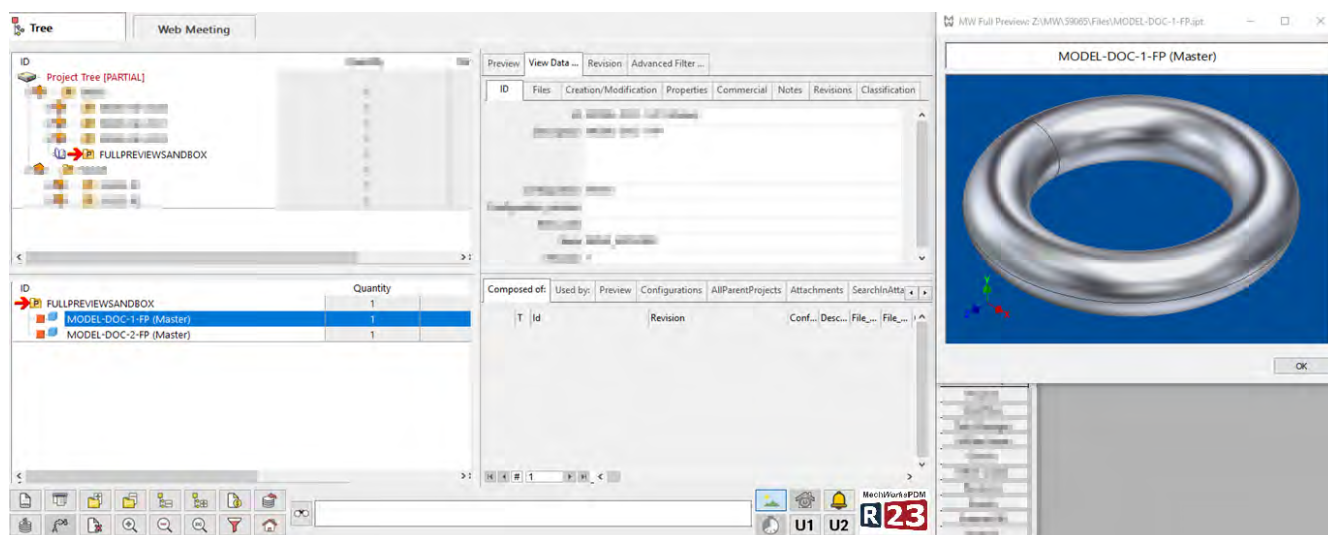
To move the full preview visualization in a preferred position, it is now possible to view documents' Full Preview through an external window. By selecting the new option *User Interface->Preview->Full Preview* radio button value *External Full Preview*



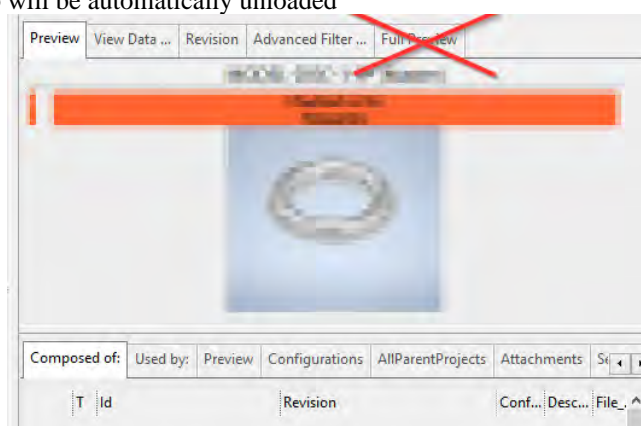
and clicking on the new Tree Page Menu Button



the full preview for the selected document will be displayed externally.

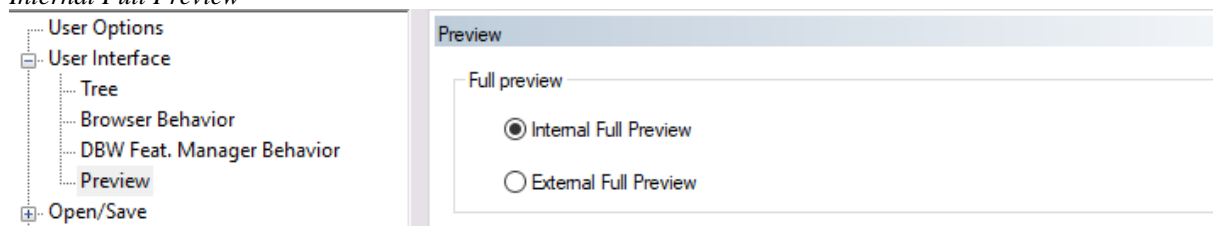


Moreover, the Tree Tab will be automatically unloaded

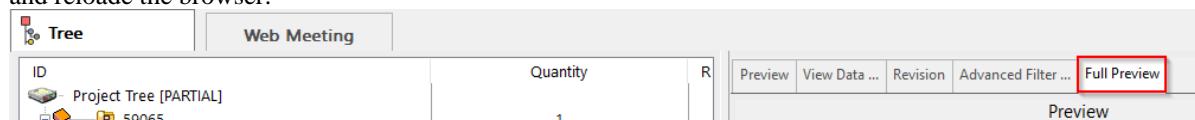


Please note that the external Full Preview is an operating system separated process, so this mode makes the MechworksPDM more reliable against system delays or failures.

To restore the usual Tree Tab Full Preview just select *User Interface->Preview->Full Preview* radio button value *Internal Full Preview*

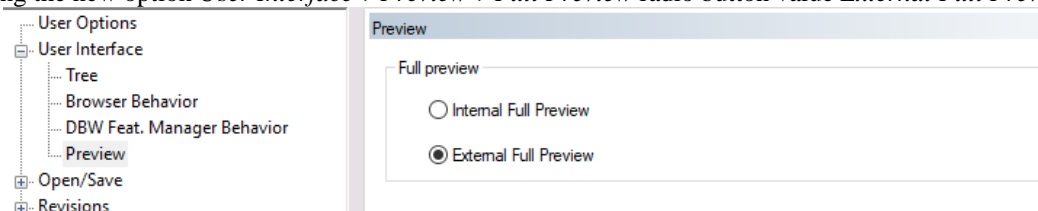


and reload the browser.

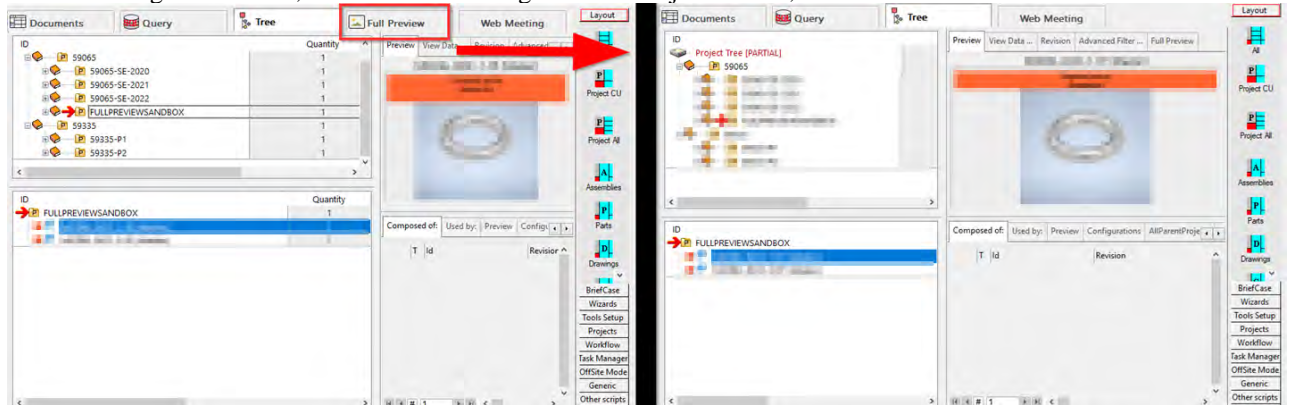


Full Preview Page

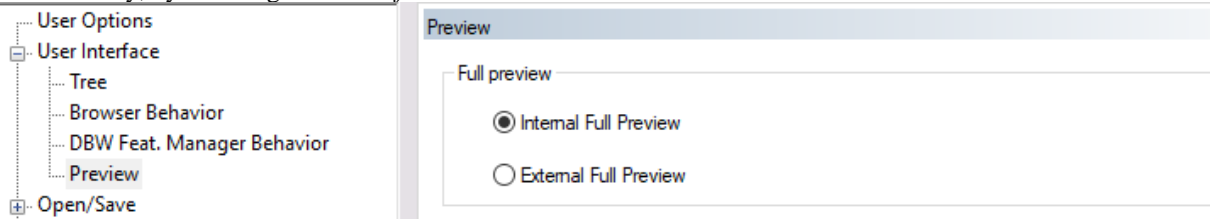
By selecting the new option *User Interface->Preview->Full Preview* radio button value *External Full Preview* value



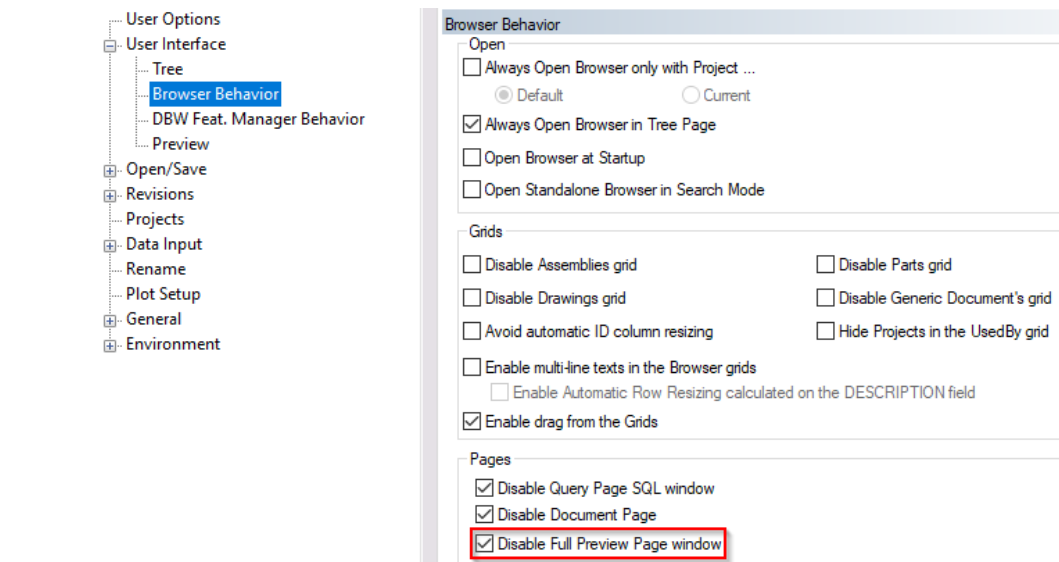
after reloading the browser, the Full Preview Page will be not just hidden, it won't be loaded at all.



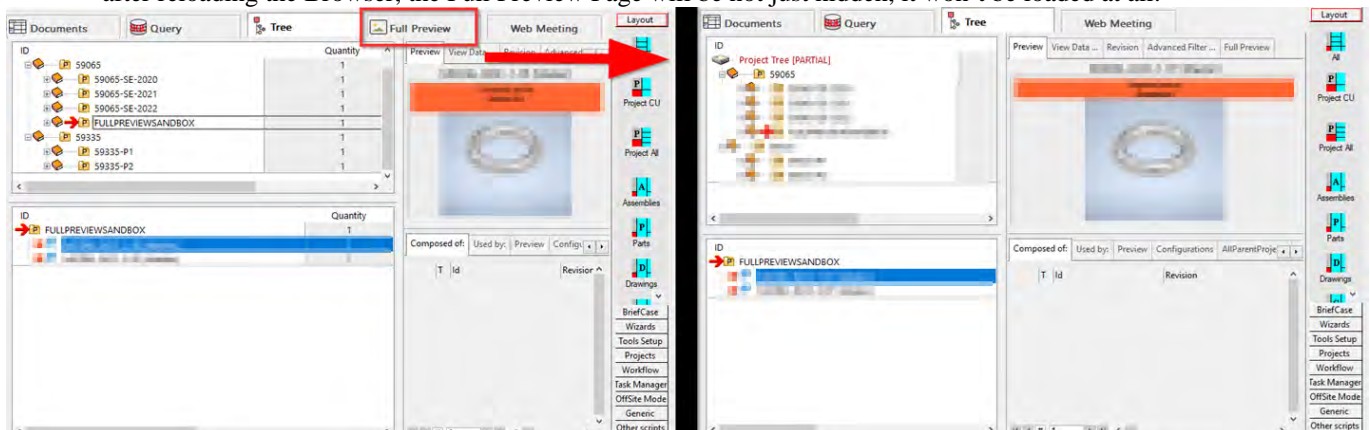
Alternatively, by selecting *User Interface->Preview->Full Preview* radio button value *Internal Full Preview*



and by disabling the Full Preview Page through the new option [x]*User Interface->Browser Behaviour->Pages->Disable Full Preview Page window*

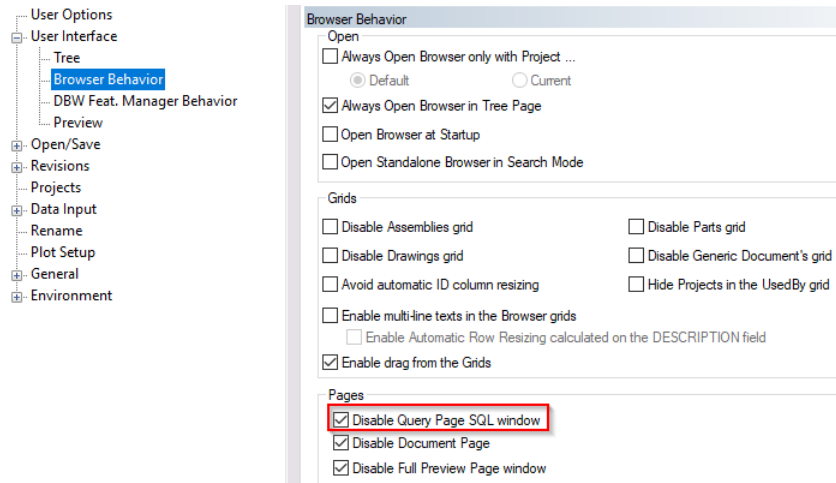


after reloading the Browser, the Full Preview Page will be not just hidden, it won't be loaded at all.

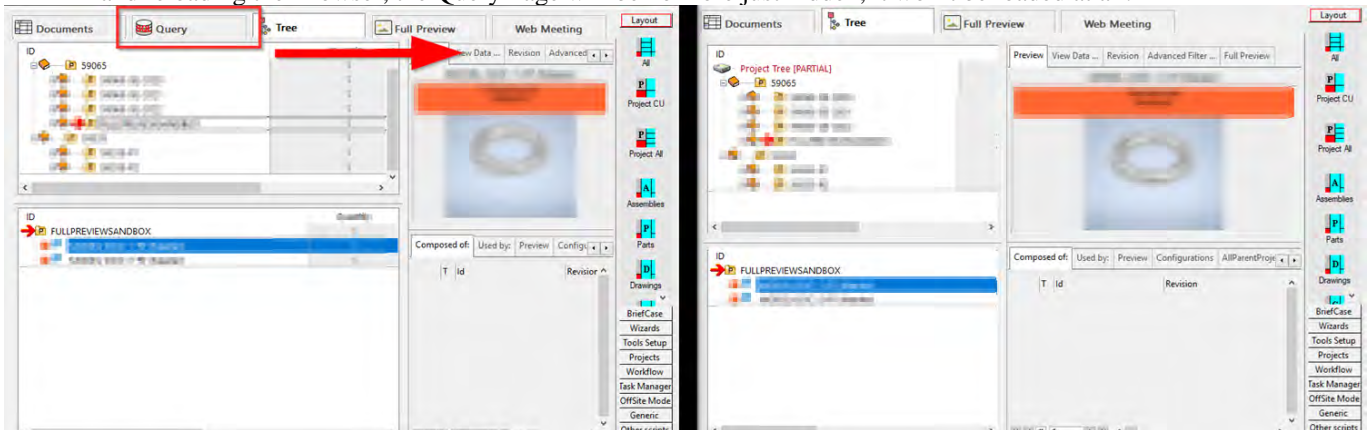


Query Page

The existing option [x]*User Interface->Browser Behaviour->Pages->Disable Query Page SQL window* has been improved so that if a user doesn't need to use the *Document Page*, by selecting the option

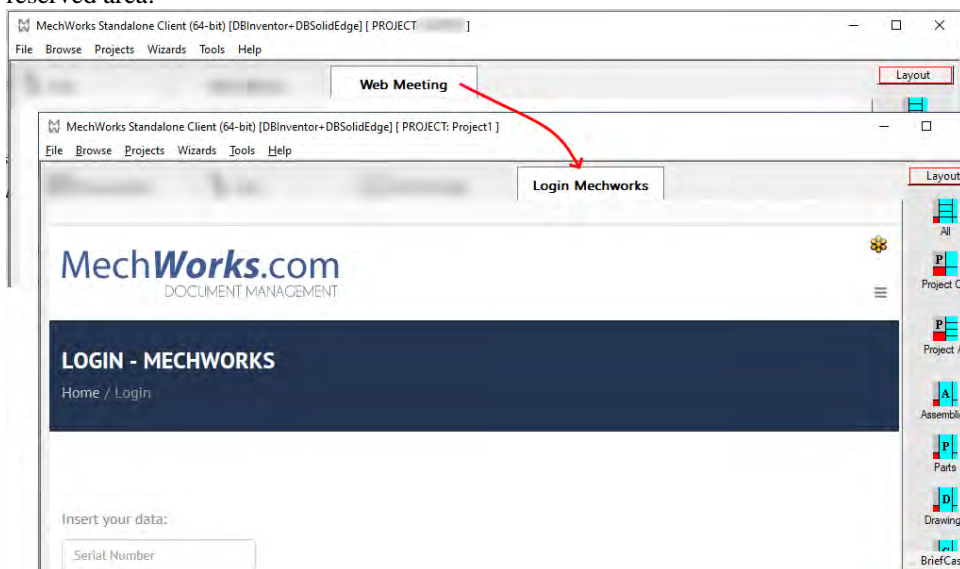


and reloading the Browser, the Query Page will be no more just hidden, it won't be loaded at all.



Web Meeting Page

The tab *Web Meeting* has been replaced by the tab *Login Mechworks* that allows to login on the Mechworks website reserved area:



Grids

Tree Page: Used By

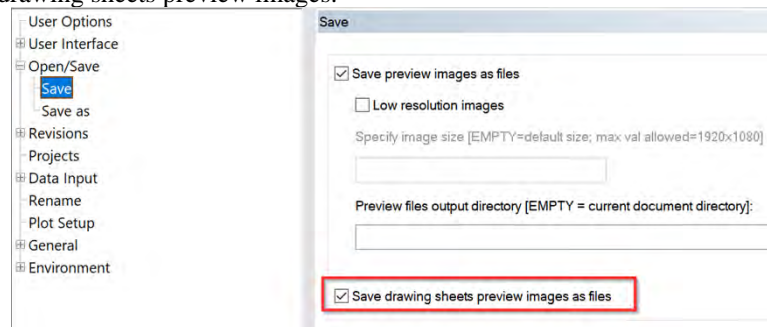
The reliability of the Used By grids has been improved. Except for an Admin, a DBWARM User can see only parents' documents that belong to the list of the User's visible projects as defined in DBW_PROJECT_USER table.

Tree Page: Enhanced readability as switching from one grid tab to another

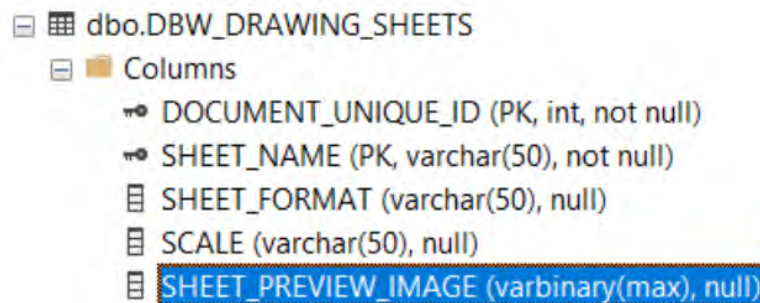
When the row height in a grid tab is manually changed during a user session, the row height value is no longer modified when switching to another grid tab and going back to the changed tab again.

Tree Page: Sheets Grid preview support through new option

A new option *Open/Save->Save->Save drawing sheets preview images as files* has been defined to save drawing sheets preview images.



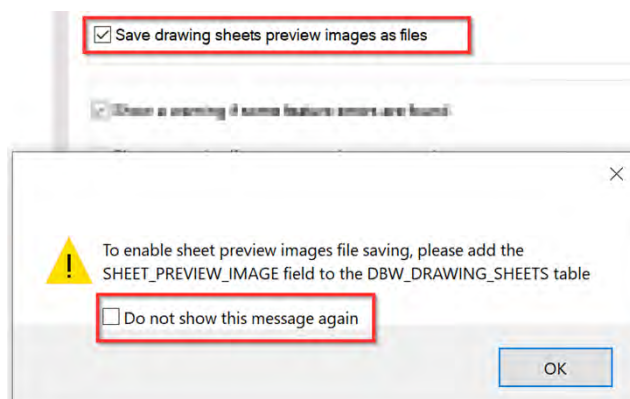
With this option enabled, if the DBW_DRAWING_SHEETS table has defined the new internal field SHEET_PREVIEW_IMAGE,



during the saving of a drawing, the PDM will store the preview image for each drawing sheet as .jpg file into the table. Therefore, by clicking the drawing sheet record in the sheets grid, PDM will retrieve and preview the saved sheet image.

Please note:

the option is enabled by default. If the SHEET_PREVIEW_IMAGE field is not existing and the option is active, when the page Option->Open/Save->Save opens, user will see a warning message. If this reminder is unwanted, click "Do not show this message again".



For Solid Edge users:

in case of a drawing saved before enabling this feature, to see updated sheets preview images on the Sheet's grid, save the document again and then click the sheet in the sheets grid. In this way, PDM will be able to retrieve the updated sheet image from database.

For Inventor users:

in case of a drawing saved before enabling this feature, to see updated sheets preview images on the Sheet's grid, save the document again and then click the sheet in the sheets grid. In this way, PDM will be able to retrieve the updated sheet image from database.

For SolidWorks users:

Drawing sheets preview was already available for SolidWorks drawings. By enabling this option, the PDM will save the updated sheet images as .jpg files to database when the corresponding sheets records are selected in the sheets grid.

Options

Global Documents Filter

Setting a Global Document Filter via the USER option will not replace the global options defined filter but will be put in OR with it, so that a user can add filters to the global options defined one but not replace it.

If the user options defined GDF is blank only the global options GDF will be applied and vice versa.

Example:

Global options GDF: T='P'

User options GDF: T='A'

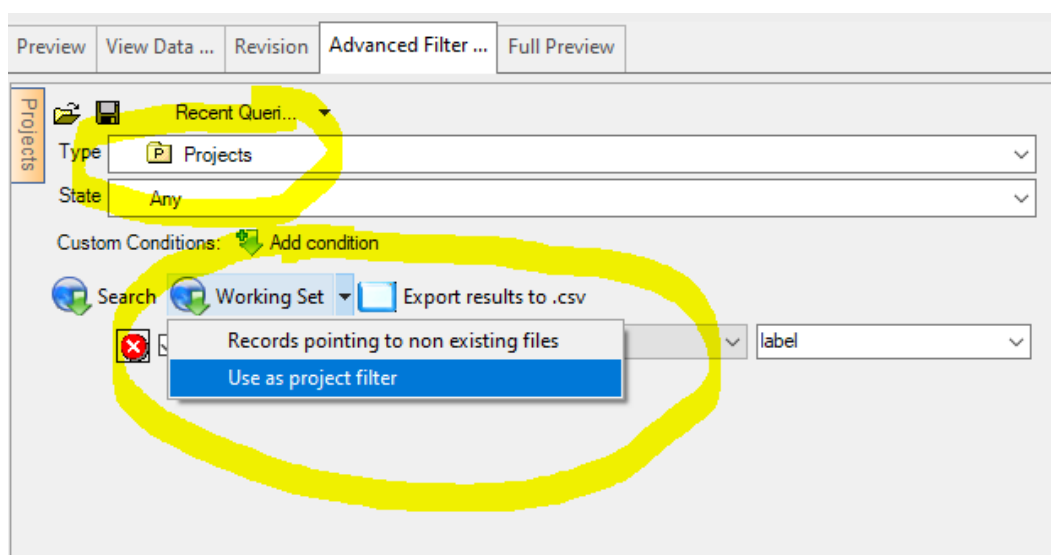
→ Applied filter: T='P' OR T='A'

Enhancements

Advanced Filter

Use the filter to select the projects to be used for filtering

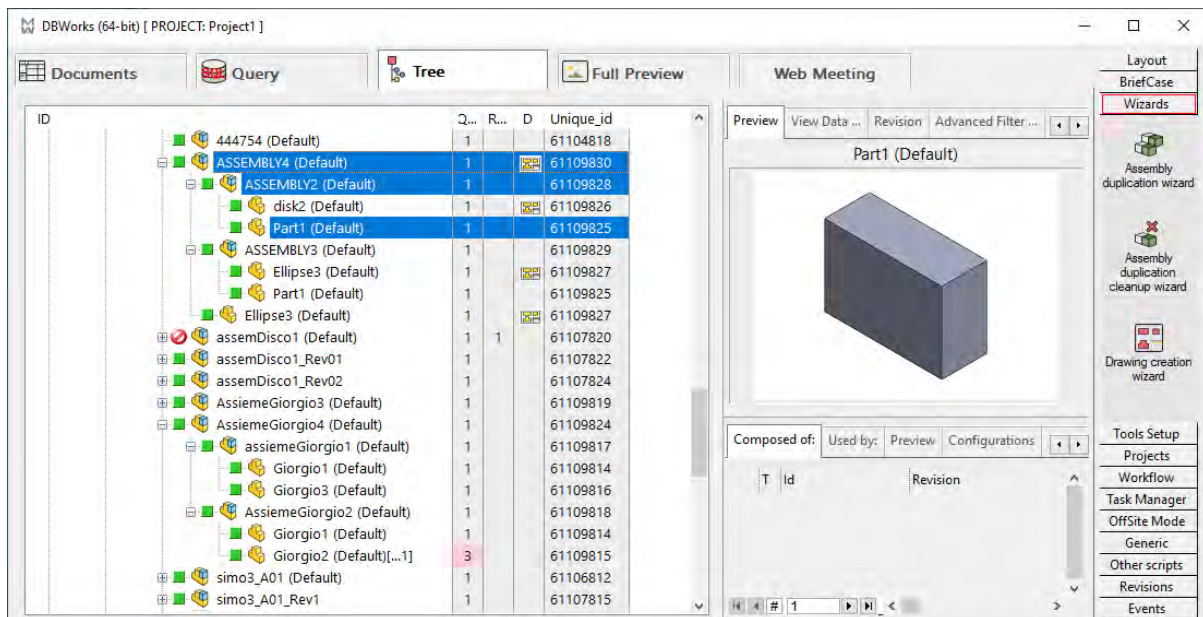
If you want to select the projects used for filtering, you can use the filter itself instead of clicking the projects in the tree. To do so, in the drop-down lists of type, select project. Then set the conditions to select the projects as usual, and to apply the filter select the entry 'use as Projects Filter' from the drop-down menu beside the Working Set button.



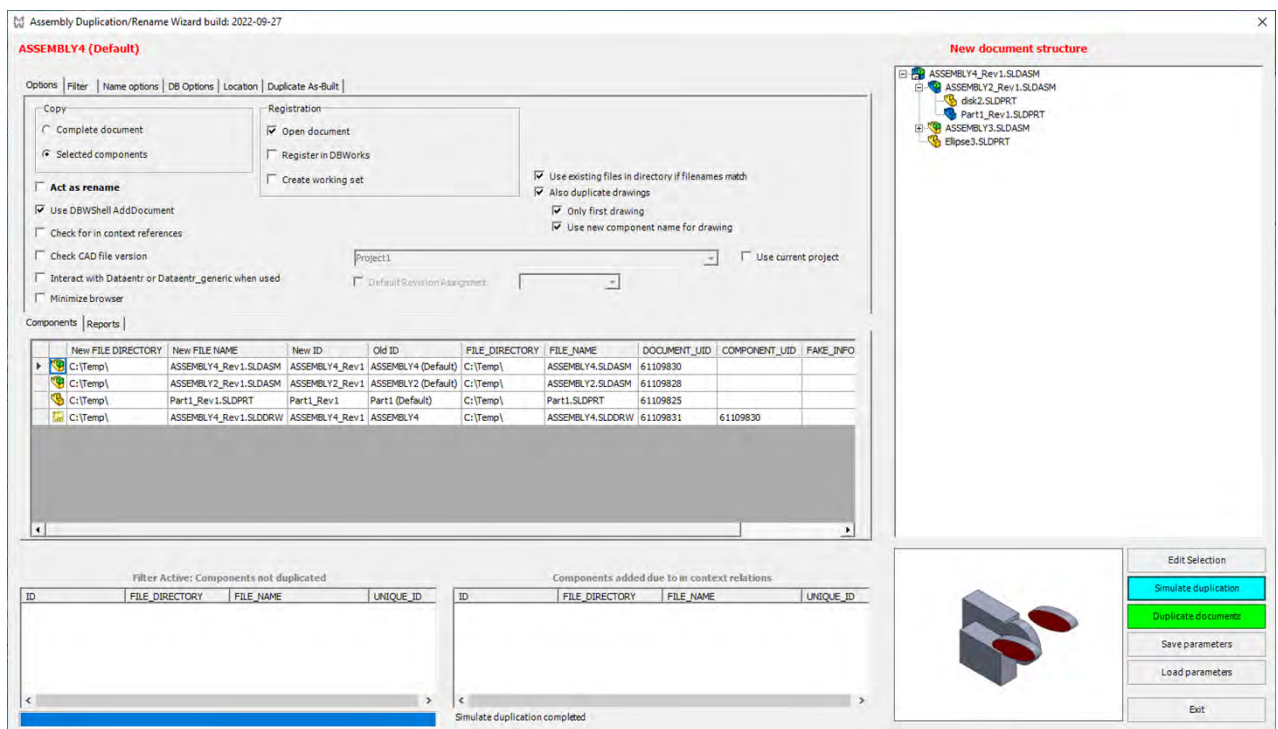
Assembly Duplication Wizard

Improvements in speed and GUI

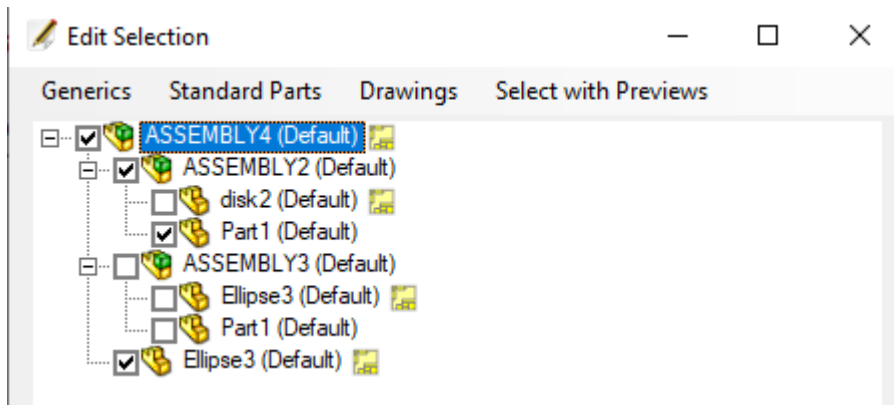
In order to duplicate an Assembly we select the main assembly and a few items in the projects tree and click the 'AssemblyDuplication Wizard' (ADW for the sake of brevity) button on the right.



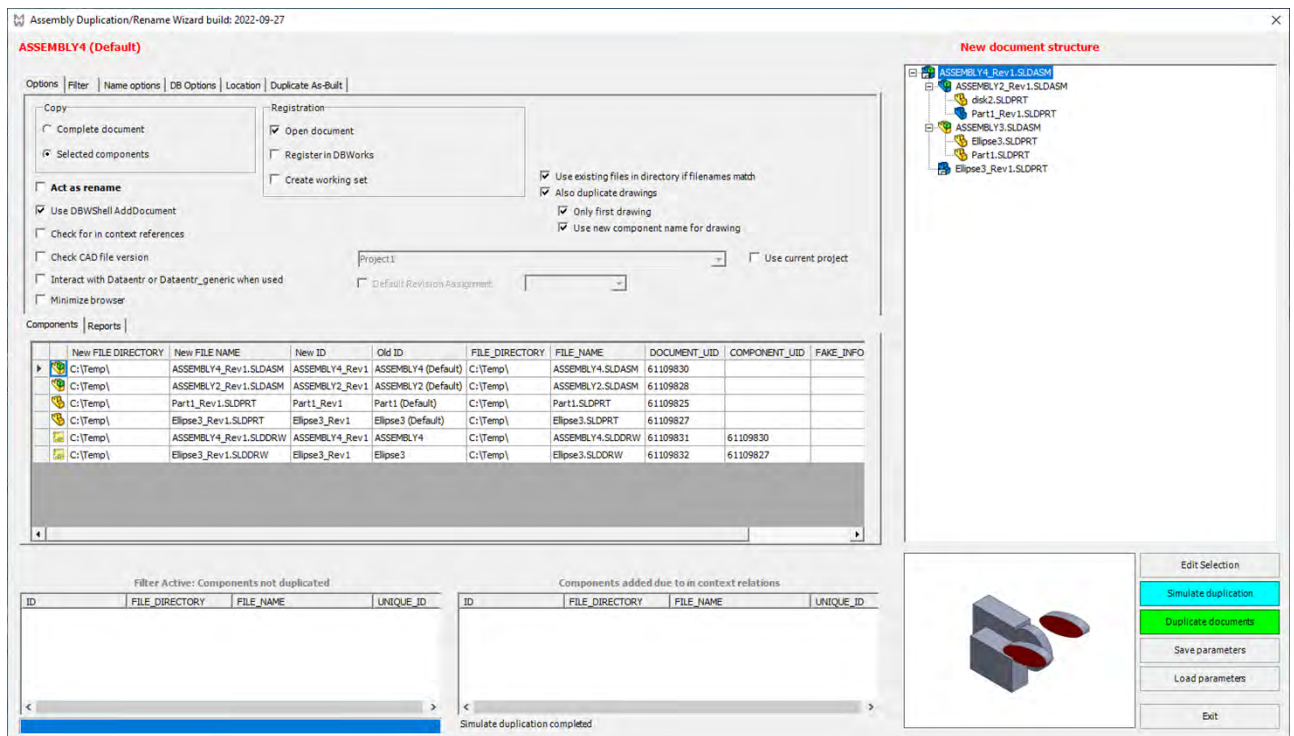
Please note that with the selection in the picture ADW R20 would have raised an exception, because Part1 is both under a selected assembly (ASSEMBLY2) and an unselected one (ASSEMBLY3), so the duplication wouldn't be possible.



We open ADW, run the simulation (which, by the way, in R23 much faster) and notice that we forgot to add Ellipse3 to the selection. In R20 we should have closed ADW and add to the selection in the projects tree, in R23 we can click the button 'Edit Selection' and continue without losing the work done on the options and other settings. The dialog appears instantly also for very large assembly structures, no more waiting time.



The new dialog allows me to add Ellipse3, the last one) to the selection, click OK to save the selection and run automatically the simulation again.

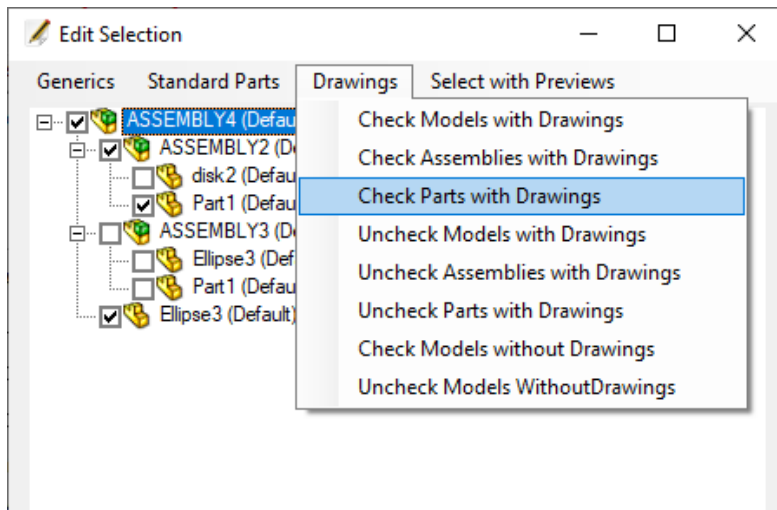


ADW does show the new selection and although Ellipse3 appears under 2 branches in the tree, it selects only the right one. We can now proceed with the duplication...

Let's now have a closer look at the new selection interface:

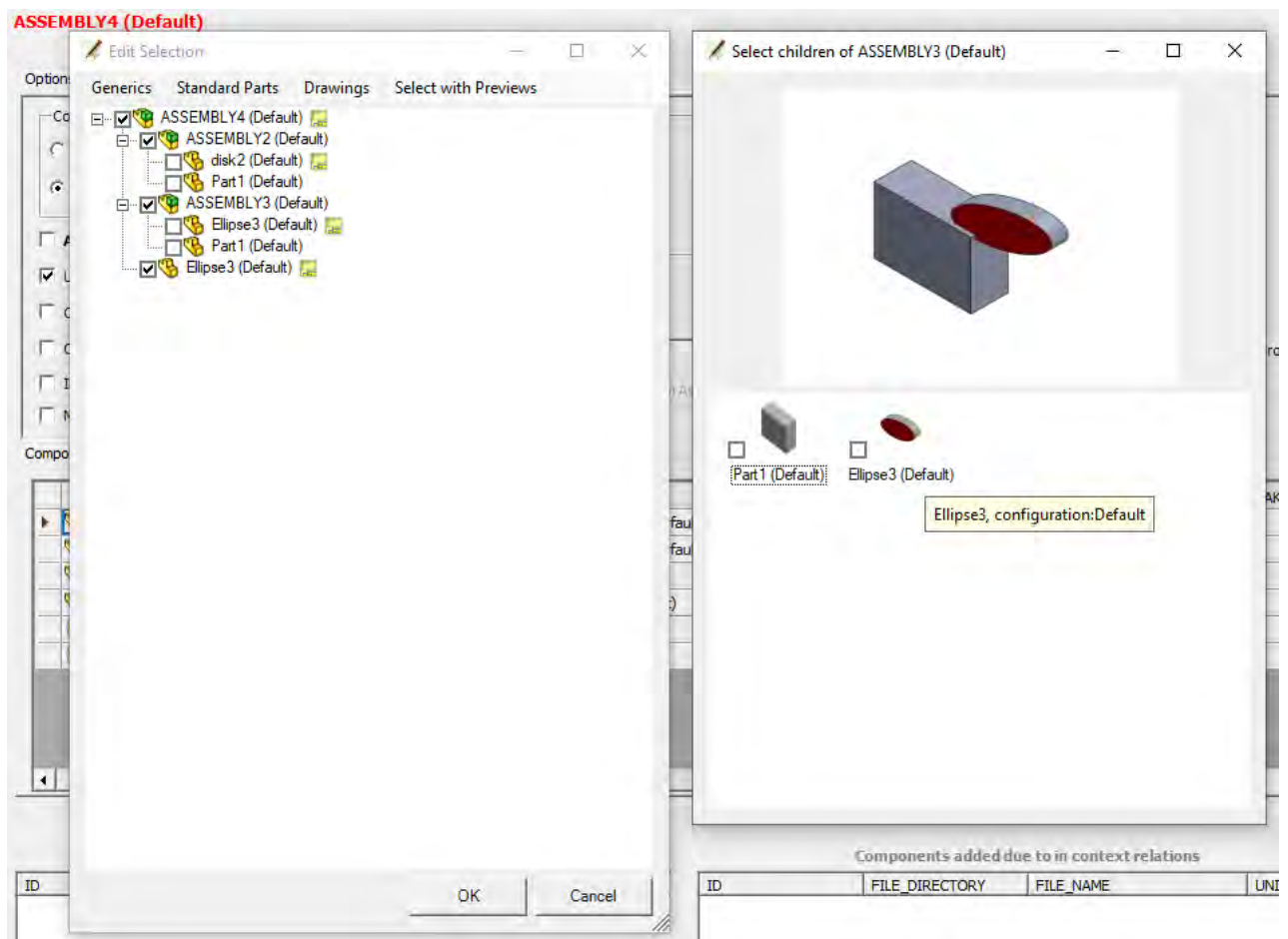
- Drawings are visible

Not only can you see which models have a drawing, you can now apply selections including (or excluding) items based on the fact that they are Standard Parts, that they have drawings or that they have generic documents. This can be very handy for large assembly structures



Also for large tree structures, automatic selections are done instantly.

Suppose that in your company Ids are not very friendly and you don't remember with certainty what a given ID really stands for. No problem, you push the button 'Select with Previews' and a new in front dialog appears beside the tree.



Now you can see the assembly and its first level children, and you can check the items right there, seeing what the Ids stand for. A few interesting features of this new interface:

- As you move the mouse above the items, the description appears right under the mouse to help you with your decision
- You can check/uncheck the items in the tree or in the previews dialog and the other interface gets updated instantly, so you can work at the same time in both dialogs without any conflict
- If you check a child, its parent gets also checked automatically, because if you duplicate a part, the parent assembly also needs to be duplicated
- If you uncheck a parent, all its children are also unchecked automatically and instantly

- If you want to proceed with the graphic selection for other subassemblies in your tree, you don't need to close and reopen the previews dialog: just select a new item in the tree and the interface on the right will be updated instantly showing the main assembly on top and its first level children below
- You can close the previews select dialog any time and reopen it as needed
- When you end your selection and click OK in the tree dialog, the second dialog closes automatically and a new simulation is executed to show the effects of your choices. Everything is much faster now

BOM

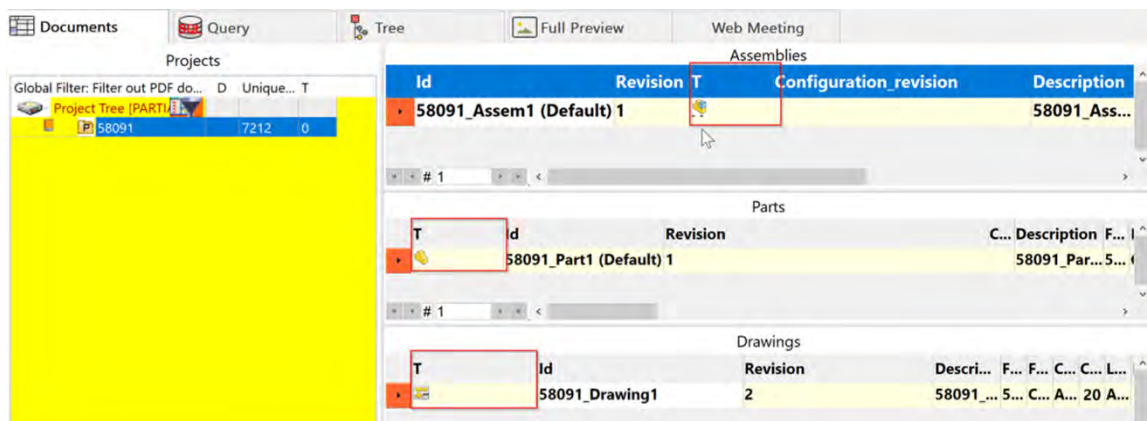
Improved 'Parent-Child Make/Buy attribute' logic.

With the option *Options->General->Assemblies->[X] Force PARENT_CHILD_MAKE_BUY attribute from assembly components option: '[X] Excluded from BOM'*, the save assembly algorithm has been improved in case of application with populated PARENT_CHILD.PARENT_CHILD_INSTANCE_ID field: in case of multiple instances with different 'Exclude from BOM' CAD settings, only records related to instances to be excluded are now removed. The new implementation, based on unique values of PARENT_CHILD_INSTANCE_ID to identify record to be deleted, allows to improve performance (previously child records were completely deleted and then recreated accordingly) and integrity (no loss of significant data already computed, like PARENT_CHILD_INSTANCE_ID).

Document Page

Document Page Grids: Type field editability forbidden.

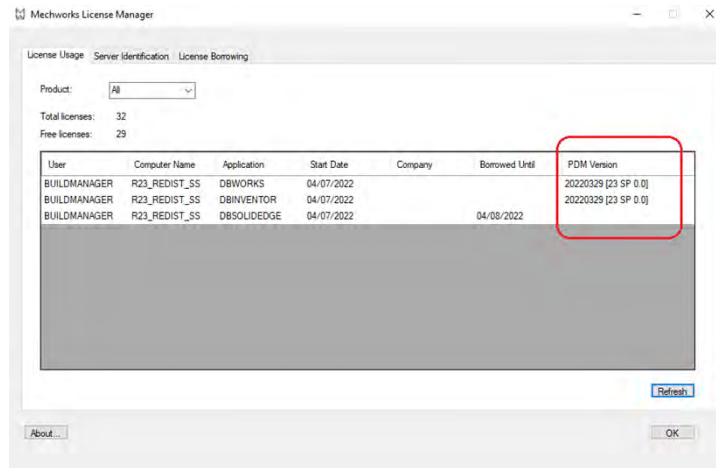
The possibility to edit field "T" is totally disabled for each kind or record shown in *Documents* Page grids.



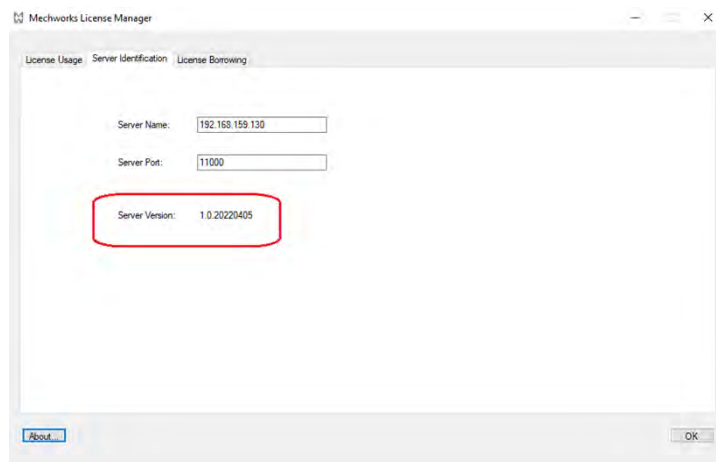
MwLicense

License Manager Monitor: added information about PDM and Server version

The License Usage tab page is now able to show PDM product build information in the new column "PDM Version". Build information is collected when the license is acquired and therefore it applies only for no borrowed license.



In the Server Identification tab page, added information about used:



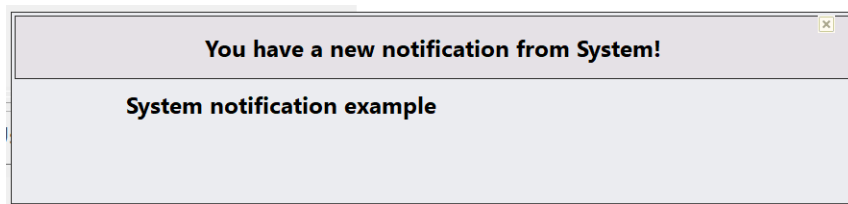
Notification System

Introduction

A new Notification System has been introduced in the PDM environment. It is based on the new UI button in the bottom right corner of the tree page: the Notification Button. It will be alarmed when a new notification is available for the current user.

The new Notification System has been thought to make sure the user won't miss any important information and let them chat with their colleagues. It will inform the user of many background activities completed or actions performed by other users or tools that impact the user's work.

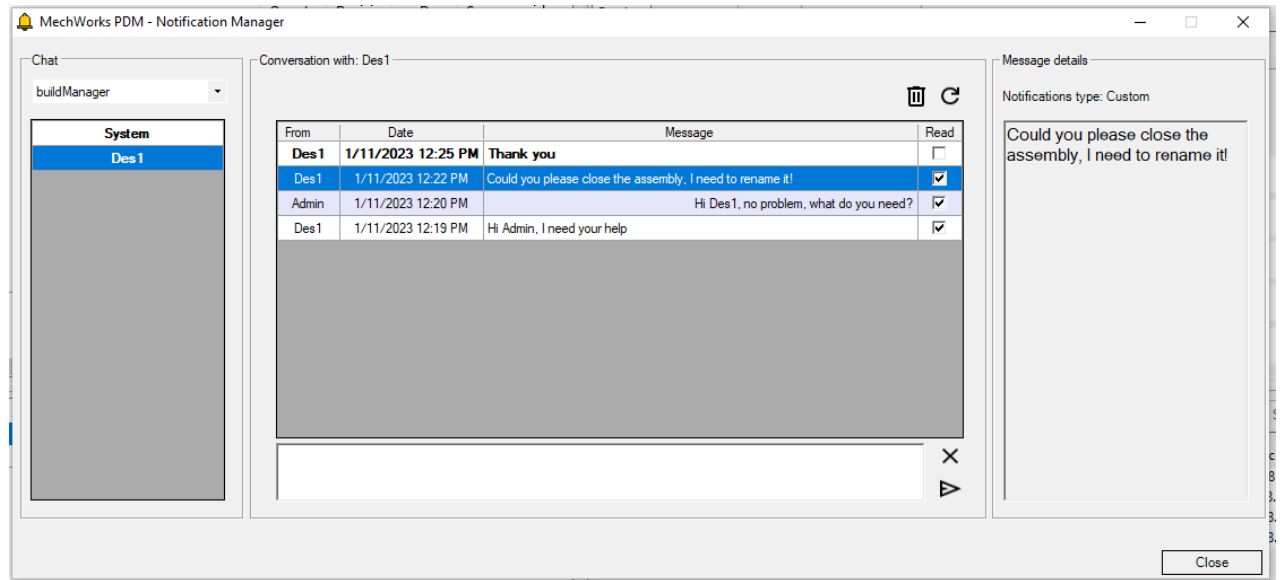
Whenever a new notification is raised a new popup will be displayed for a few second on the screen showing the notification text.



The notification button will become alarmed:



And clicking on it will display the Notification Manager, the new interface designed to show the notifications for the current logged user and let you send messages to other users or DBWARM Groups. The application checks every 5 seconds for new notifications incoming, if found, the taskbar icon will flash.



On the left side of the interface is placed the chat: Every user or group that had a conversation with the current user is displayed in the list. Clicking on it will populate the central grid with their conversation. If a chat has some new messages it will appear in bold (like System in the example).

In order to send a message to a user or group not already listed in your active chat, you can just select it from the dropdown list, a new entry will be added to your active chat and you will be able to send it a message. The dropdownlist has the autocomplete feature so you can digit the user or group you are looking for. Only groups that have one or more users are loaded into the dropdown list.

The Chat "System" is used for notifications generated by the PDM and you can not replay to its messages.

In the conversation table the sent messages appear light blue, received messages appear white. The new messages will appear in bold.

The "Read" column indicates whether the notification has been read or not by the receiver. If it is a group notification it will be read once all the receivers belonging to the group have read it.

Utilizing the textbox at the center bottom you can type your replies and send it to the currently selected chat.

With the button "Refresh" you can refresh the interface checking for new messages.

With the button "Delete" you can delete the selected messages. You are allowed to delete only notifications sent by you or by System.

On the right side of the interface is situated the Message details tab that let you know the type of the currently selected notification (see below) and will display the extended message of it.

Here is the list of currently implemented notifications with their enumerative number (column TYPE in the database), many other could be implemented in future releases:

- Reload (0): Notify the user a read-only component that is currently open in memory has been modified by another user. It is raised only if the dialog "Component Update Notify" is not shown.
- Project User Assignment (1): Notify the user that an administrator has changed their project-user assignment. It is raised only if the related message box is not shown.
- OffSite Mode (2): OffSite Mode related notifications such as the end of a file transfer using AsyncAgent.
- Task Manage (3): Task Manage related notifications such as the completion of a submitted task.
- Generic (4): Notifications raised by the PDM system.
- Custom (5): Custom user notifications raisable via shell.

Please note that, to enable the Notification System, the new table DBW_NOTIFICATIONS needs to be defined into the database.

API: RaiseNotification

Added function RaiseNotification to object Messages to send a notification to the current user or to a specific user or DBWARM Group.

Parameters:

NotificationMessage: The content of the notification

UserName (optional): If specified the notification will be sent to the specified user, otherwise it will be sent to the current user that is running the script. If the name of a DBWARM Group is specified in this parameter, a notification will be sent to all the user in the specified group.

Usage Example:

...

```
Set pDBWInit = CreateObject("MwPDMApi.Initialize")
```

```
Set pDBWAppl = pDBWInit.StartConnection(DBWorksApplicationName)
```

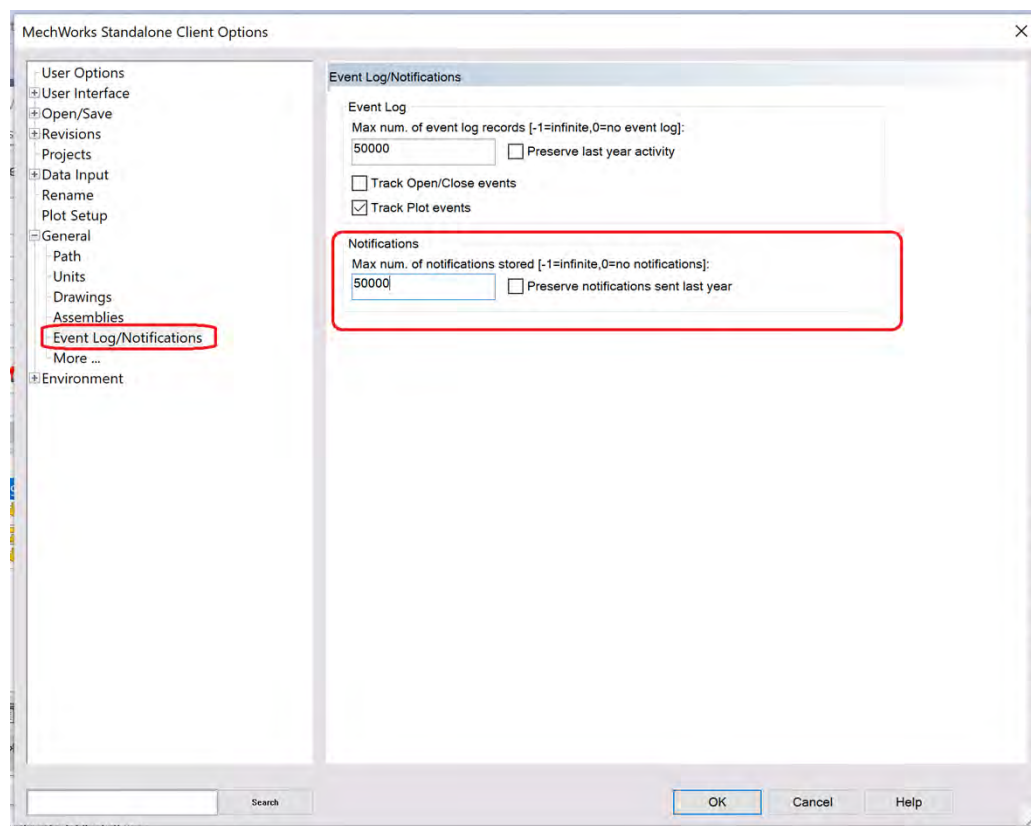
```
pDBWAppl.Messages.RaiseNotification(notificationMessage)
```

And as DBWShell Command:

```
Call DBWShell("RaiseNotification " & chr(34) & "notification text" & chr(34) & " " & chr(34) & "User Name" & chr(34))
```

Notification Options

- The Options menu item “Event Log” has been renamed in “Event Log/Notifications” and will contain all the future notifications options.
- A new option has been introduced for Notifications:
Options->General->Event Log/Notifications->Max. num. of notifications stored [-1=infinite; 0=no event log], default 50000. This represent the maximum number of records in the DBW_NOTIFICATIONS table, if the amount of record is higher, the oldest notifications will be deleted.
- If the option [X] Preserve notifications sent last year is checked the notifications younger than one year won't be deleted even if the number of records exceed the set parameter.



Options

Open/Save -> Save -> Always save suppressed components -> Show as grayed in Trees

The option Open/Save -> Save -> Always save suppressed components -> Show as grayed in Trees is now able to distinguish between different configurations: If a component is suppressed in a configuration but not in another it will appear grayed only in the correct configuration.

Rewrite of the external dialog used to select a project

The new dialog loads the project tree faster and includes a text box that can be used to look for a project with autocomplete. A vbscript that will invoke this dialog can do it as follows:

```
set co = createobject("DBWJComp.codeobject")
uid = co.ShowProjectPicker("<username>")
set co = nothing
```

the variable uid will contain the unique id of the project selected or an empty string otherwise. <username> is the name of the user for which the tree must be calculated, in accordance with the projects assigned.

New option: Environment->DBWArm->[] Custom Complexity

Added the possibility to define custom password minimum complexity parameters to validate new passwords. To enable this feature check [X] Custom Complexity and write parameters beside the option.

DBWArm

- ☒ Enable DBWARM Access Rights Manager
 - ☒ Use DBWARM Login
 - ☐ Allow Change of Password
 - ☒ Encrypt Passwords
 - ☒ Check for Minimum Password Complexity
 - ☒ Custom complexity 12,1,1,1,1
 - ☐ Notify Administrator on Failed Login

For example, if it's required that new passwords comply with the following rule:

- Total password length ≥ 12
- Number of Uppercase characters ≥ 2
- Number of Lowercase characters ≥ 1
- Number of Number characters ≥ 3
- Number of special symbols (@#[]()^+~*~!£\$%&/<>§ç) ≥ 1

type

DBWArm

- ☒ Enable DBWARM Access Rights Manager
 - ☒ Use DBWARM Login
 - ☐ Allow Change of Password
 - ☒ Encrypt Passwords
 - ☒ Check for Minimum Password Complexity
 - ☒ Custom complexity 12,2,1,3,1
 - ☐ Notify Administrator on Failed Login

If no parameters are typed or option is unchecked, the usual standard rule holds:

- Total Password length ≥ 7
- Number of Uppercase characters ≥ 1
- Number of Lowercase characters ≥ 1
- Number of Number characters ≥ 1

If one of the parameters is not needed, for example the Lowercase Characters minimum number, just type "0" in the corresponding parameter's string position:

DBWArm

- ☒ Enable DBWARM Access Rights Manager
 - ☒ Use DBWARM Login
 - ☐ Allow Change of Password
 - ☒ Encrypt Passwords
 - ☒ Check for Minimum Password Complexity
 - ☒ Custom complexity 7,1,0,1,1
 - ☐ Notify Administrator on Failed Login

Please note:

If the user disables the option *Environment->DBWArm->[]Allow Change of Password*, this new option is automatically disabled because its operation strictly depends on the possibility to change Password.

DBWArm

☒ Enable DBWARM Access Rights Manager

☒ Use DBWARM Login

☐ Allow Change of Password

☐ Encrypt Passwords

☒ Check for Minimum Password Complexity

☒ Custom complexity 7,1,1,1,0

☐ Notify Administrator on Failed Login

New option: Environment->Cut List->[]Avoid cut List records within the following [Grids]

Possibility to avoid displaying Cut List records from selected Grids of both Browser's Tree Page and Document Page.

It can be enabled by checking new option

Environment->Cut List->[X]Avoid cut List records within the following [Grids]

☒ Avoid Cut List records within the following [Grids]

and choosing the grid to apply the filter, among the following

COMPOSED_OF
PARTS
GENERICS

that correspond respectively to:

- *Composed Of, Parts, Other Documents* tabs of Browser's Tree Page.
- *Composed Of, Parts, Documents* sections of Browser's Document Page.

Feature only available in DBWorks and DBSolidEdge.

Read-only Global parameters File Notification Dialog

Possibility to avoid seeing the warning by selecting new checkbox "[X] Do not show this message again".

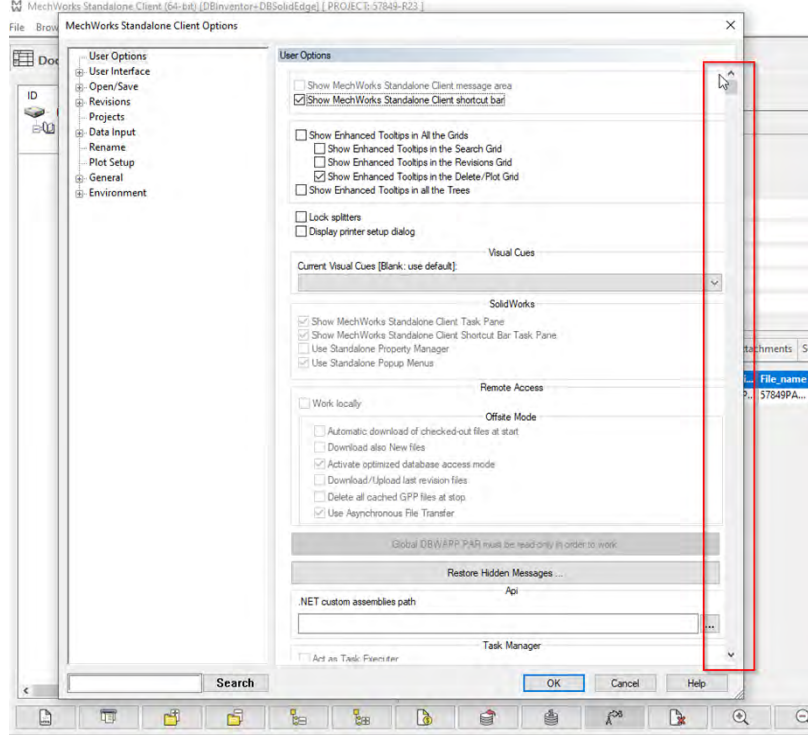
WARNING! The Global Parameters File is protected and can not be saved.
Any modification to the Global Parameters will not be permanently saved.
Only the User specific options will be saved.

☒ Do not show this message again

OK

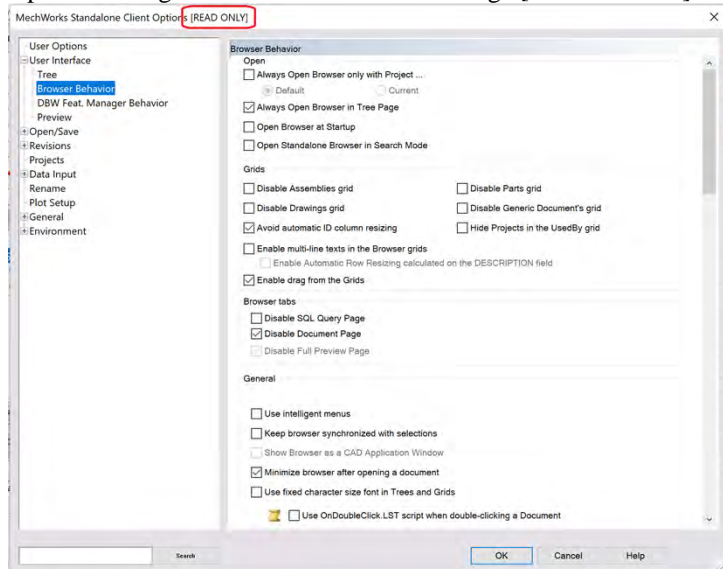
Options Dialog: resized and scrollable Dialog.

Options Dialog is resized so that it takes up less space and associated inner option pages are scrollable.



Options Dialog: Read Only indicator

Options Dialog's title now include the message [READ ONLY] if the DBWApp.par is ReadOnly.

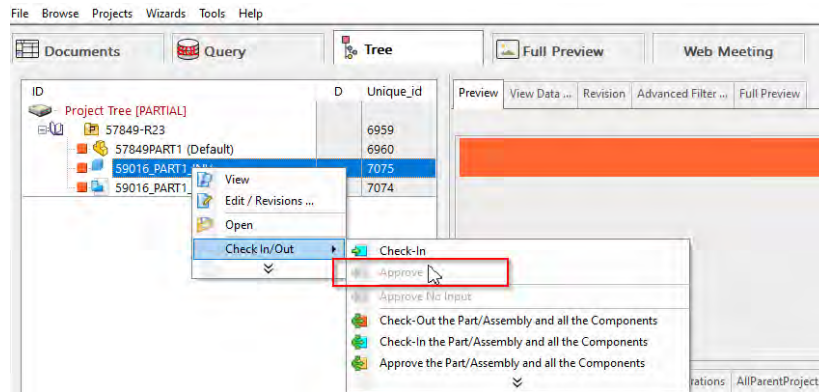


Project User Assignment: support for full file names

The users list in the Project User Assignment tool displays also the full user name

New option: Revisions->Approval->[x]Avoid direct approval from checkedout state.

By checking this option, it is possible to disable direct approving for a document being in checked-out state.

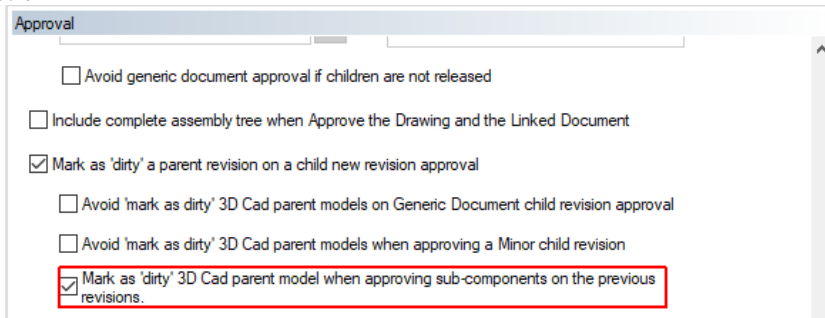


Please note:

- Asking for an approval request through Workflow mode is not conditioned by the option.
- On DBSolidEdge, approving a document from Solid Edge Toolbar is already not allowed if the current Active document is in checked-out state, such behavior is not modified by this option.

New option: Revisions->Approval->[x] Mark as 'dirty' 3D Cad parent model when approving sub-components on the previous revisions.

By checking new option

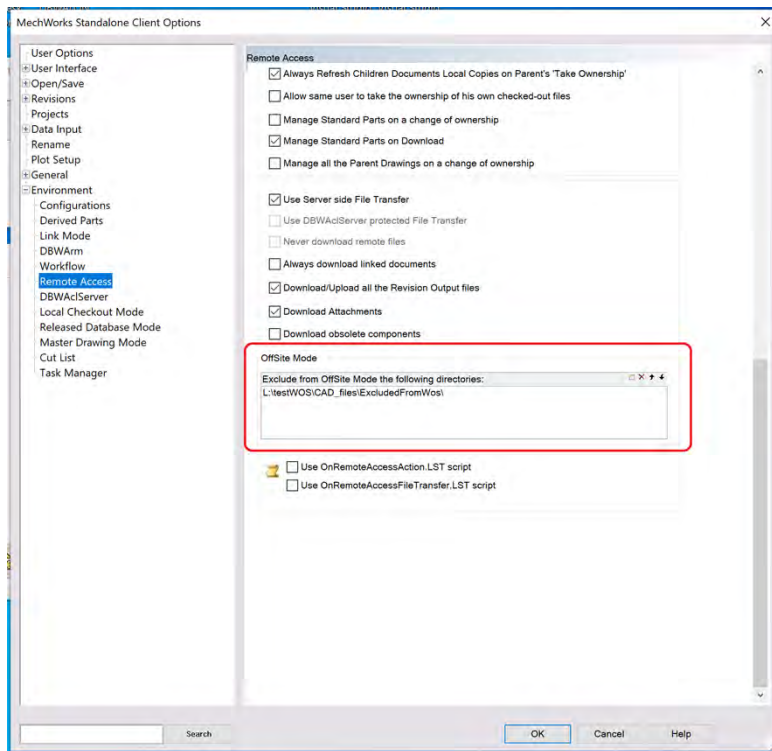


it is possible to mark the 'dirty' status of the Parent model if the Child is approved by executing either direct or recursive previous revision approval.

OffSite Mode

New Option: Environment -> Remote Access -> OffSite Mode -> Exclude from OffSite Mode the following directories

Created a new sub-section in Remote Access options page for OffSite Mode's options that are not user-dependent. It contains a new option that let the company "exclude" from OffSite Mode any number of specific directories. Any file in those folders (and subfolders) will be "excluded" from OffSite Mode, they won't be downloaded, uploaded, no TakeOwnership will be executed (the COMPANY_ID field won't change on check-out) and they will be loaded from the remote location, losing all the performance advantage that OffSite Mode guarantees on those files. This option has been designed to let the users work with their custom Design Libraries in OffSite Mode with no need to completely download them, that would be typically be an issue in many environments.



New Option: User Options -> OffSite Mode -> Download checked-out file at start

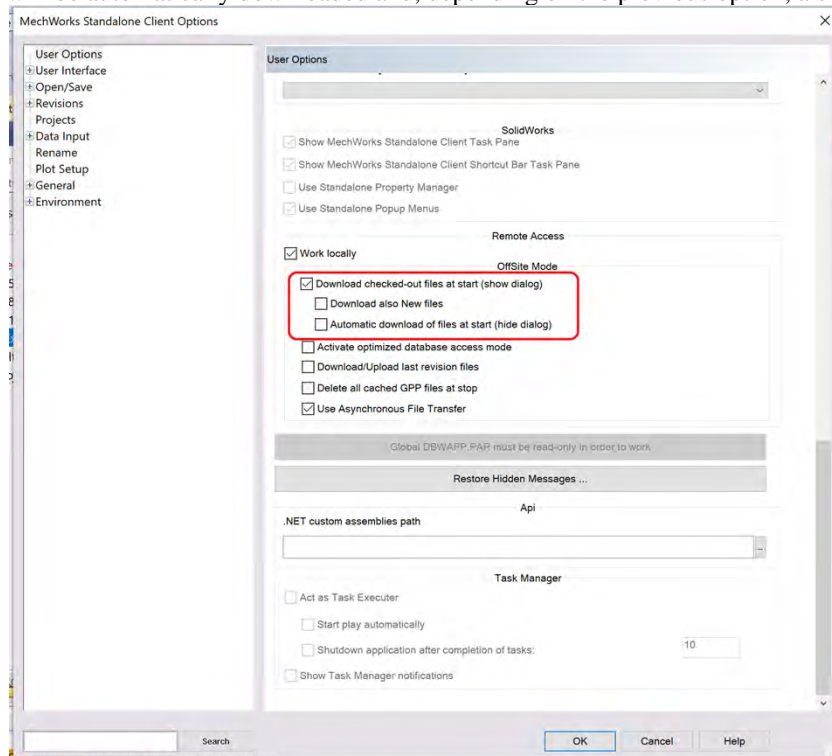
Created new option User Options -> OffSite Mode -> [X] Download checked-out file at start, if NOT checked the document selector dialog will be skipped and won't be download any file at OffSite Mode start.

If checked the document selector dialog will be shown, populated only with checked-out files by the current user, and will be possible to select which file to download.

Sub options:

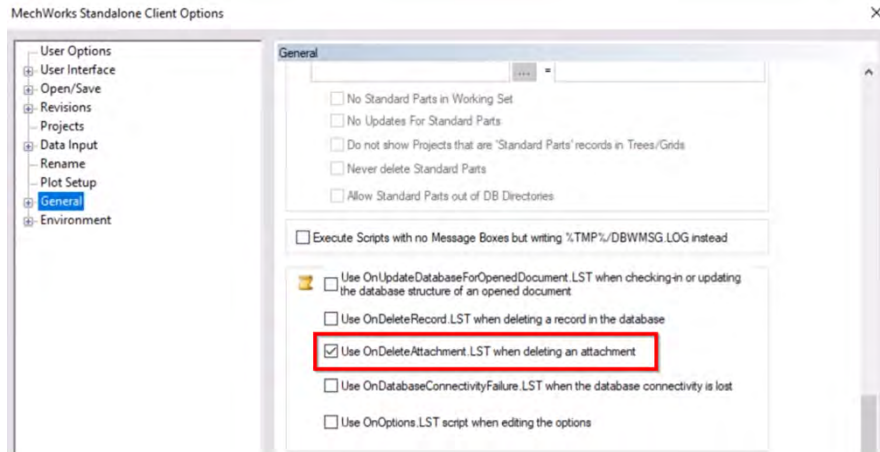
If [X] Download also New files is checked, files in state NEW will be added to the document selector dialog

If [X] Automatic download of files at start is checked, the document selector dialog will be hidden and the checked-out files will be automatically downloaded and, depending on the previous option, also the files in state NEW.



New option General->[X] Use OnDeleteAttachment.LST when deleting an attachment is enabled

If option General->[X]Use OnDeleteAttachment.LST when deleting an attachment is enabled



and the script OnDeleteAttachment.LST is present into \LST_DIR folder, it is possible to manage the attachment deletion.

The script receives the following input parameters:

@DOCUMENT_UNIQUE_ID, the unique id of the attachment parent record

@DOCUMENT_PATH_NAME, the attachment file path name.

Example: avoid attachment deletion if file is not in checked-out state

'x64

.VBSCRIPT

Sub Main()

 DBWInit(True)

 uid = DBWInput("@DOCUMENT_UNIQUE_ID")

 state = DBWQueryByUid(uid,DBWLookup("NAME_FIELD_STATE"))

 okDel = 0

 If UCase(state) = UCase(DBWLookup("NAME_STATE_BEING_MODIFIED_STRING")) then
 okDel = 1

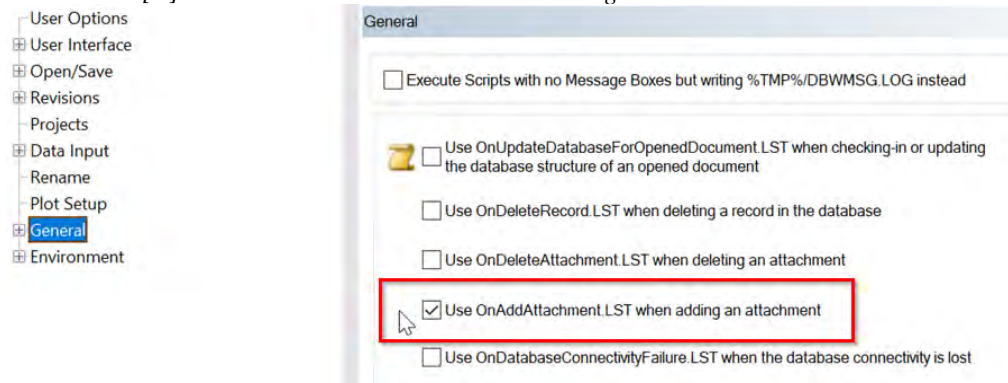
 End If

 DBWOutput "@OKDELETE",okDel,ForWriting

End Sub

New option General->[X] Use OnAddAttachment.LST when adding an attachment is enabled

If option General->[X]Use OnAddAttachment.LST when adding an attachment is enabled



and the script OnAddAttachment.LST is present into \LST_DIR folder, it is possible to block/allow the attachment allegation according to custom logic.

The script receives the following input parameters:

@DOCUMENT_UNIQUE_ID, the unique id of the attachment parent record

@DOCUMENT_PATH_NAME, the attachment file path name. There could be multiple instances of this parameter if multiple attachments are selected.

Example: avoid adding attachment if parent document is not in checked-out state

'x64

.VBSCRIPT

Sub Main()

DBWInit(True)

uid = DBWInput("@DOCUMENT_UNIQUE_ID")

state = DBWQueryByUid(uid,DBWLookup("NAME_FIELD_STATE"))

okAdd = 0

If UCase(state) = UCase(DBWLookup("NAME_STATE_BEING_MODIFIED_STRING")) then

okAdd = 1

End If

DBWOutput "@OKADD",okAdd,ForWriting

End Sub

Start/Stop OffSite Mode

In order to guarantee more reliability, to start or stop OffSite Mode is now required that no files are opened in the CAD. Moreover the application will be automatically shut down at start and stop OffSite Mode in order to avoid forgetfulness for the user.

Performances

DBWArm Record level access control

A notable performance increase has been introduced if the option Environment -> DBWArm-> [X] Enable record level access control is checked, both for the tree and for the grids.

If N is the number of elements in the tree and/or the number of rows in a grid, 2xN query are now avoided, granting a much faster loading of the interface.

Expand current Project

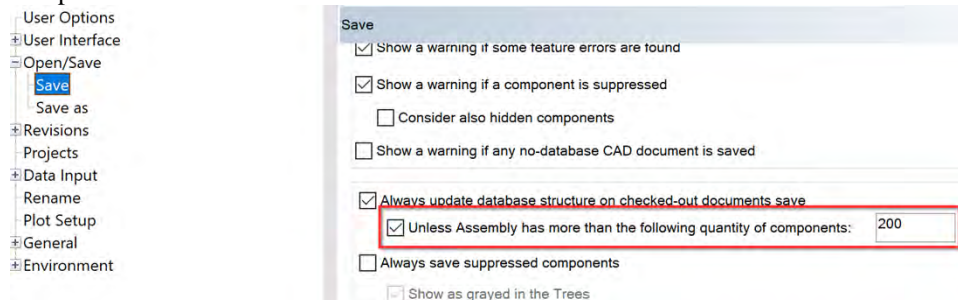
Working with the 'User Interface -> Tree -> [X] Expand the current project in the Project Tree and collapse all the others' option, the algorithm used in populating Tree structure has been reviewed to manage the above option properly once the Project is effectively set as current. Infact, in combination with persistent Tree state information saved in the specific DIR_USERS folder, it is possible to keep the list of expanded projects aligned with user selection without any additional overhead related to the current project.

Assembly Duplication Wizard

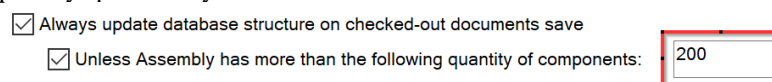
The time required to simulate the duplication into a new structure has been shortened, especially for large assemblies

New option: Open/Save->Save->[x]Unless Assembly has more than the following quantity of components.

If the option Open/Save->Save->[x] Always update database structure on checked-out documents save is enabled, by checking new option

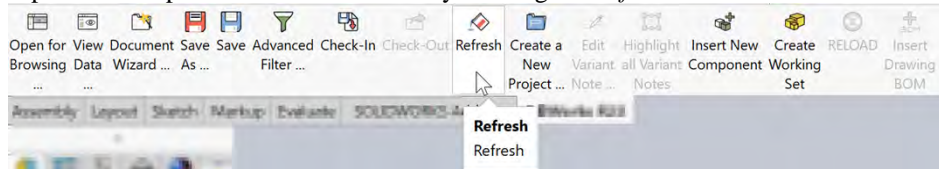


it is possible to bypass assembly database structure update during save operation, if the assembly components number exceeds a maximum quantity specified by the user.



To preserve performances, the assembly sub-components counting is performed once after the first assembly save operation, after that the corresponding number is kept in memory. To refresh the count, close, open and save the assembly again.

After a save, it is possible to update database structure by clicking the *Refresh Button*



The option is available for the following supported CAD: SolidWorks, Solid Edge, Autodesk Inventor.

Replication

New Standard table added to replication

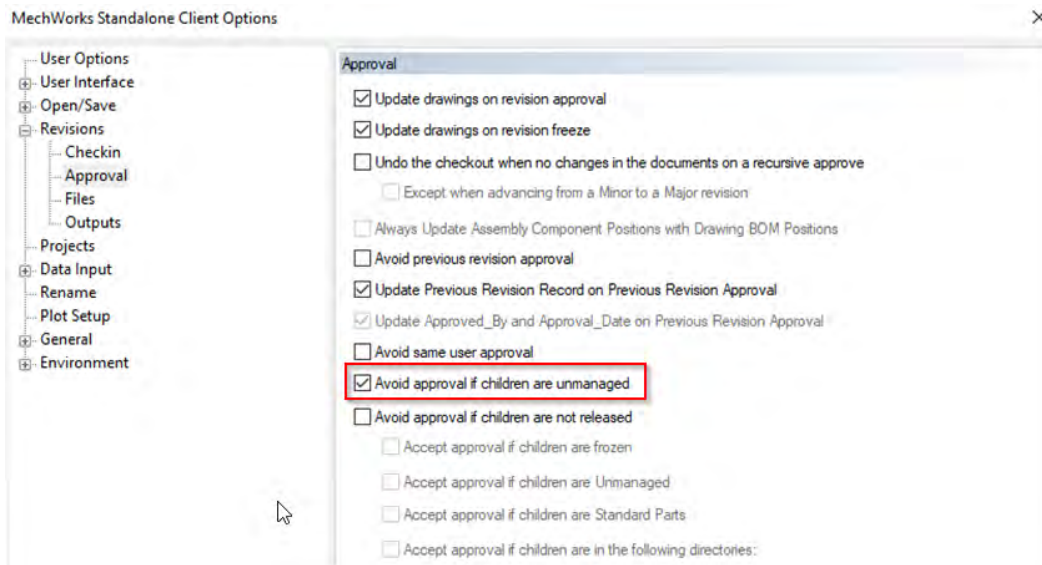
The table DBW_DRAWING_SHEETS is now replicated by default when setting the replication environment via the CreateReplicationScripts.vbs script.

This enhancement is due to better synchronization experience in a distributed environment.

Revisions

New Option: Revisions->Approval-> [] Avoid approval if children are unmanaged

When approving a document, with such option enabled it is possible to stop document approval if at least one of its related child documents is unmanaged, independently from child documents being released or not.



Enhanced RestoreRevision shell command

The DBWShell command RestoreRevision has been enhanced with a new (optional) input: the document Uid. Since the usual command works only with the Browser's Tree Page being activated, and with an item selected, by launching the command with an input document unique id:

- 1) If the Browser is closed, PDM will open the browser and automatically set the Tree Page active, after the restore revision procedure is finished, the Browser will be automatically closed.
- 2) If the Browser is already open and the current active page is different from the Tree Page (e.g., the Document Page), the PDM will automatically set the Tree Page active. The old current active page will be restored automatically after RestoreRevision procedure has been terminated.

Syntax:

```
Sub main()  
    DBWInit(true)  
    revision = "3" 'The document revision number to restore  
    docUid = "9908" 'The unique id of the document to restore  
    DBWShell("RestoreRevision " & revision & " " & docUid )
```

End Sub

In case the user needs to restore multiple documents, to avoid Browser being opened and closed for each document, it suffices to open it before launching the shell.

In the following a schematic example:

```
Sub main ()
    DBWInit(true)
    call DBWShell("OpenForBrowsing")
    call DBWShell("MinimizeBrowser")

    'first document revision to restore
    revision = "1"
    docUid = "9908"
    DBWShell("RestoreRevision " & revision & " " & docUid )

    'second document revision to restore
    revision = "2"
    docUid = "9934"
    DBWShell("RestoreRevision " & revision & " " & docUid )

    call DBWShell("CloseSheet")
End Sub
```

Scripting

New Standard Library function: DBWSetNullFieldData

This sub allows to set a NULL value in a field, given a key and a key value.

Syntax:

```
Sub DBWSetNullFieldData <datasource>, <table>, <field_to_set>, <key>, <keyvalue>
```

Parameters:

<datasource>: the main database datasource
 <table>: the table to set a field to
 <field_to_set>: the field to be set as NULL
 <key>: the key field
 <keyvalue>: the key field to match

Example:

```
...
datasource = "@USEDEFAULTDATASOURCE"
table = DBWLookUp("NAME_DOCUMENT_TABLE")
field_to_set = DBWLookUp("NAME_FIELD_DESCRIPTION")
key = DBWLookUp("NAME_FIELD_UNIQUE_ID")
keyvalue="19911"
DBWSetNullFieldData datasource, table, field_to_set, key, keyvalue
...
```

New Standard Library function: DBWGetStringFieldData2

This function allows to retrieve a field value and to verify if it's NULL.

Syntax:

```
Function DBWGetStringFieldData2 (datasource, login, password, table, field_to_read, key, keyvalue, ByRef sResult, ByRef isValueNull)
```

Parameters:

<datasource>: the main database datasource
 <login>: a valid login for the datasource
 <password>: the password for the datasource

<table>: the table to read a field from
 <field_to_read>: the field to be read
 <key>:the key field
 <keyvalue>: the key field to match
 <sResult>: the value of the matching field
 <isValueNull>: TRUE if the sResult is NULL;

Example:

```

datasource = "@USEDEFAULTDATASOURCE"
login = DBWorksConnectionUID
password = DBWorksConnectionPWD
table = DBWLookup("NAME_DOCUMENT_TABLE")
field_to_set = DBWLookup("NAME_FIELD_DESCRIPTION")
Key = DBWLookup("NAME_FIELD_UNIQUE_ID")
keyvalue="19911"
'DBWSetNullFieldData datasource, table, field_to_set, key, keyvalue
field_to_read = DBWLookup("NAME_FIELD_DESCRIPTION")
res = DBWGetStringFieldData2(datasource, login, password, table, & _
    field_to_read, key, keyvalue, sResult, isValueNull)
DBWMsgbox "res=" & res & vbcrlf & "isValueNull=" & isValueNull & vbcrlf &
    _ "sResult=" & sResult
  
```

Added info in script CheckForParentChildRecursions.vbs

Added info for unique ids in the message boxes and in the log files created

Remote Access file replication script

Added a new parameter that need to be added to the file GPP\PAR\ReplicationScriptParameters.par:

LOGLEVEL=1

It indicates the level of logging in the file C:\ProgramData\MechWorks\ReplicationLogs\RepWizard_XXX.log.





Acceptable values 0/1/2 -> 0: no error logged, 1: only error logged, 2: also the filtered files logged. If not found in the file ReplicationScriptParameters.par, the default value is 1.

Remote Access file replication launcher

The script replicate_Files_launcher.vbs is now able to create a log file called ReplicationNotRun_DATE.txt if the replication did not run because the StandAlone process was running. More, issues have been solved terminating the StandAlone process that cause error messages in certain situation.

DBWShell("GetPartialVisibleProjectsUidList") command

This new command returns the displayed 1st level Project Tree [PARTIAL] UNIQUE_IDs .

ID	Unique_id
 Project Tree [PARTIAL]	
 TEST 1	9903
 TEST 2	9904
 TEST 3	9905

Syntax:

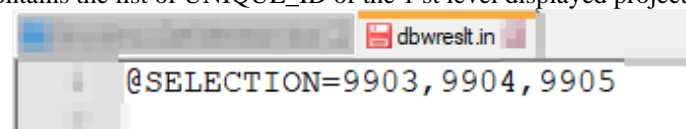
DBWShell("GetTreeFirstLevelChildDocuments")

Input:

None.

Output:

The %TMP%\dbwreslt.in contains the list of UNIQUE_ID of the 1st level displayed projects.



Example: show the Project Tree [PARTIAL] first level projects into the Working Set.

'.x64

Sub Main()

```

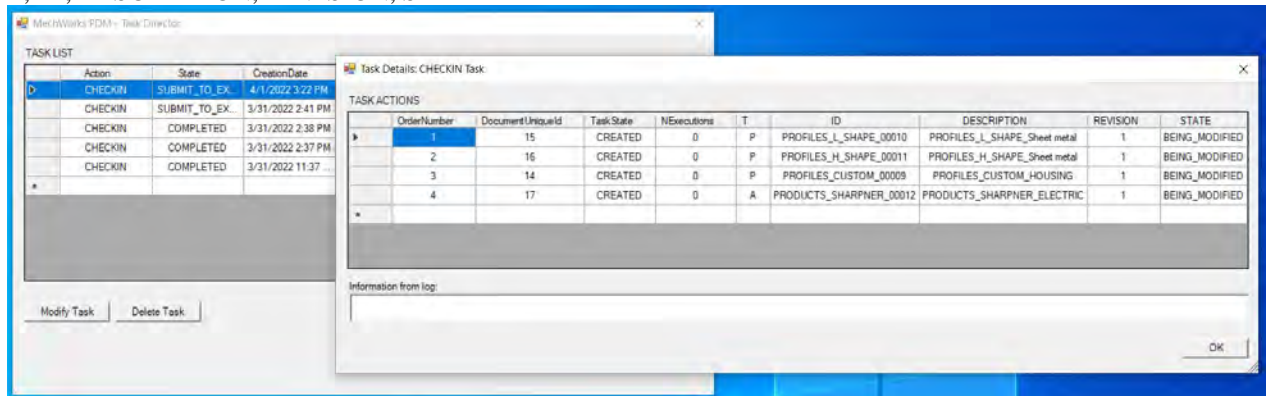
DBWInit(TRUE)
DBWShell("GetPartialVisibleProjectsUidList")
if (okDBW) then
    selection = DBWResult("@SELECTION")
    DBWShell("WorkingSetCreate " & selection)
end if
End Sub

```

Task Manager

Task Director: Details Dialog shows Document properties

Task Details Dialog now shows for every Task Action the following Document related fields:
T, ID, DESCRIPTION, REVISION, STATE



Task Director: UI Enhancements

Task Director now maintains the Columns sorting order after a table refresh.

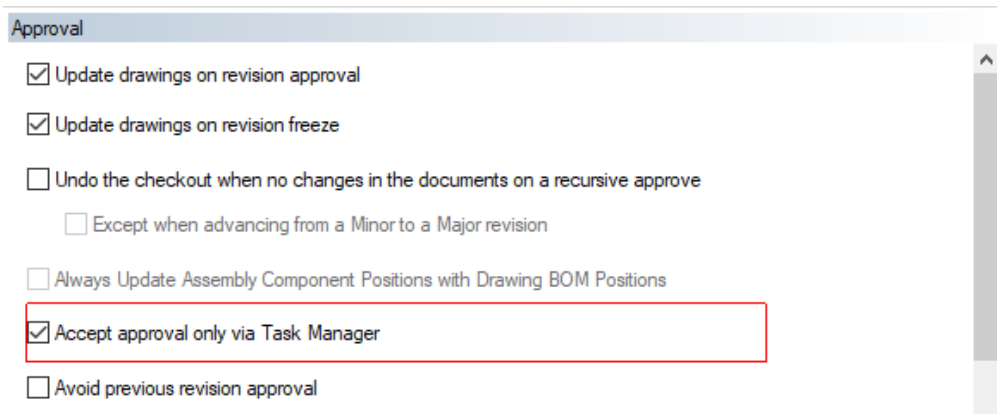
Task Agent: Start PDM without showing Browser on Startup

To better enhance the performance of loading time, on every Executer Node Machine when Task Agent is running the PDM will not open the Browser on Startup anymore, even when the option "User Interface->Browser Behavior->Open Browser at Startup" is active.

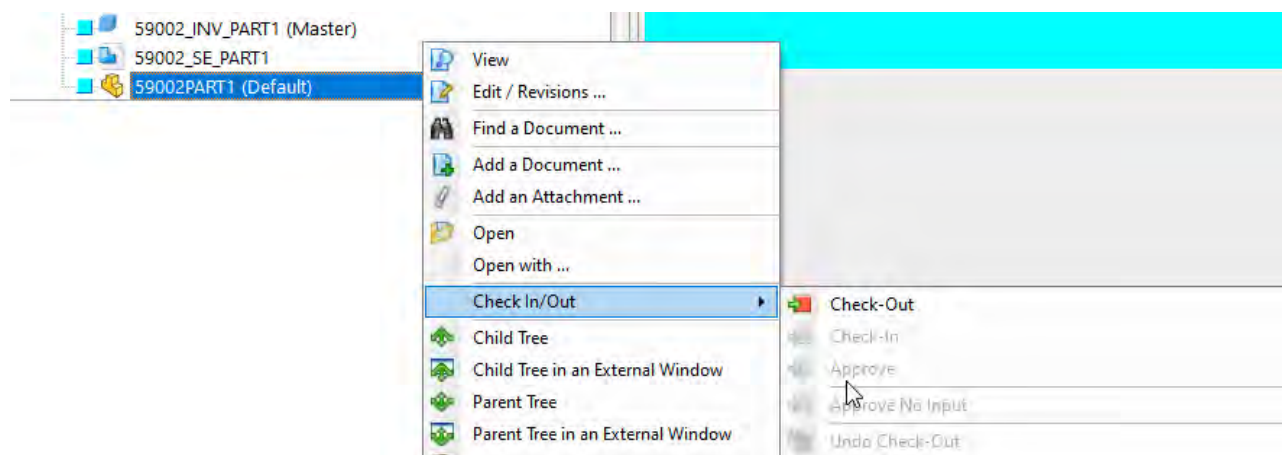
In fact, opening the Browser is not necessary when executing automatically all the Tasks enqueued.

New option: Revisions->Approval->[x]Accept approval only via Task Manager.

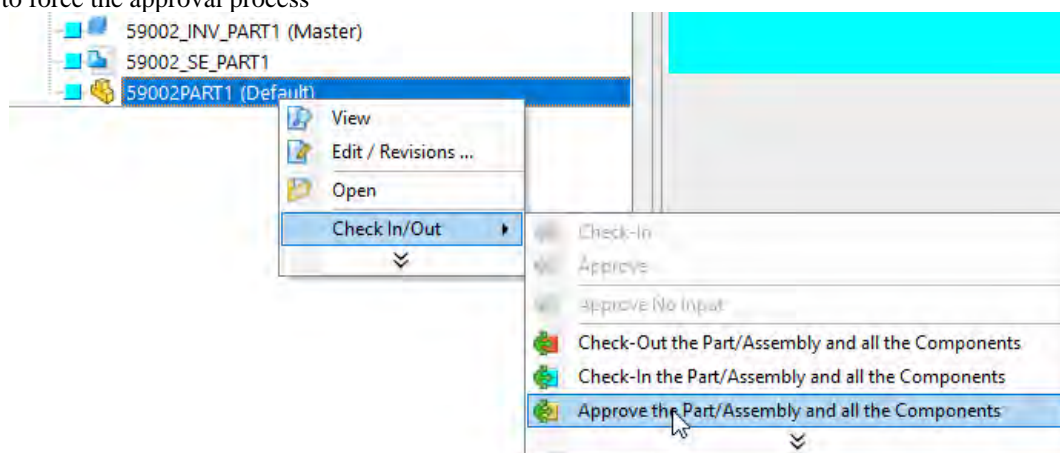
If the Task Manager is enabled, by checking the new option *Revisions->Approval->[x]Accept approval only via Task Manager*



it is possible to avoid direct approval



and to force the approval process

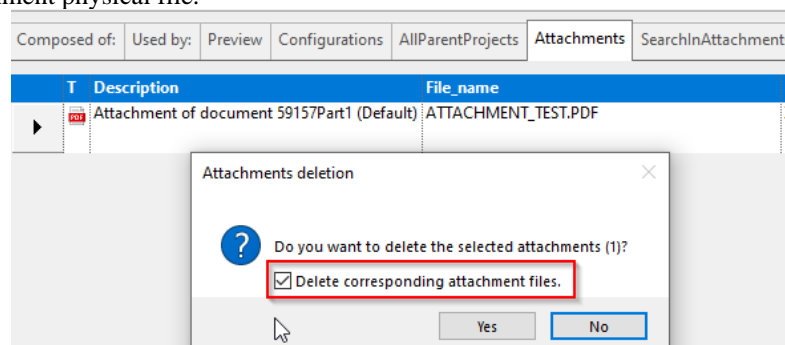


to be executed only via Task Manager.

Tree Page

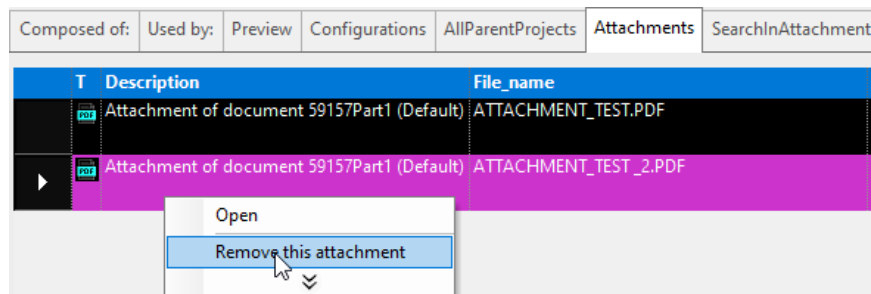
Attachment Grids: possibility to delete associated attachment files.

On the Remove Confirmation Message Dialog, a new checkbox is displayed to let the user decide whether to delete also associated attachment physical file.

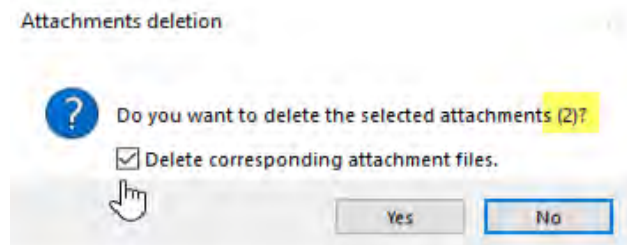


Since the Attachment File Deletion is an irreversible action, every time it is invoked the checkbox will be unchecked by default. Once the Attachment File Deletion is finished, a new event is inserted into the EVENT_LOG table with field EVENT_LOG.ACTION valorized as "ATTACHMENT_FILE_DELETED"

If the user asks to delete multiple attachments records at the same time



by clicking on the checkbox

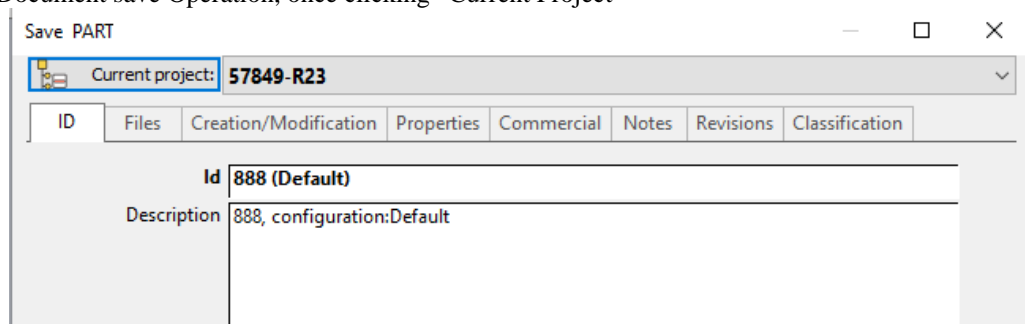


all the corresponding attachment files will be deleted in the same operation.

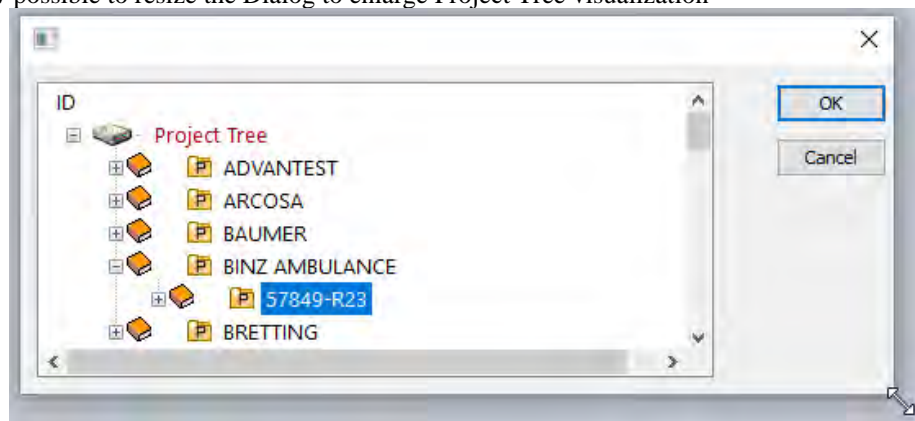
User Interface

Project Selection Tree Dialog: resizable Tree View control.

During Document save Operation, once clicking “Current Project”

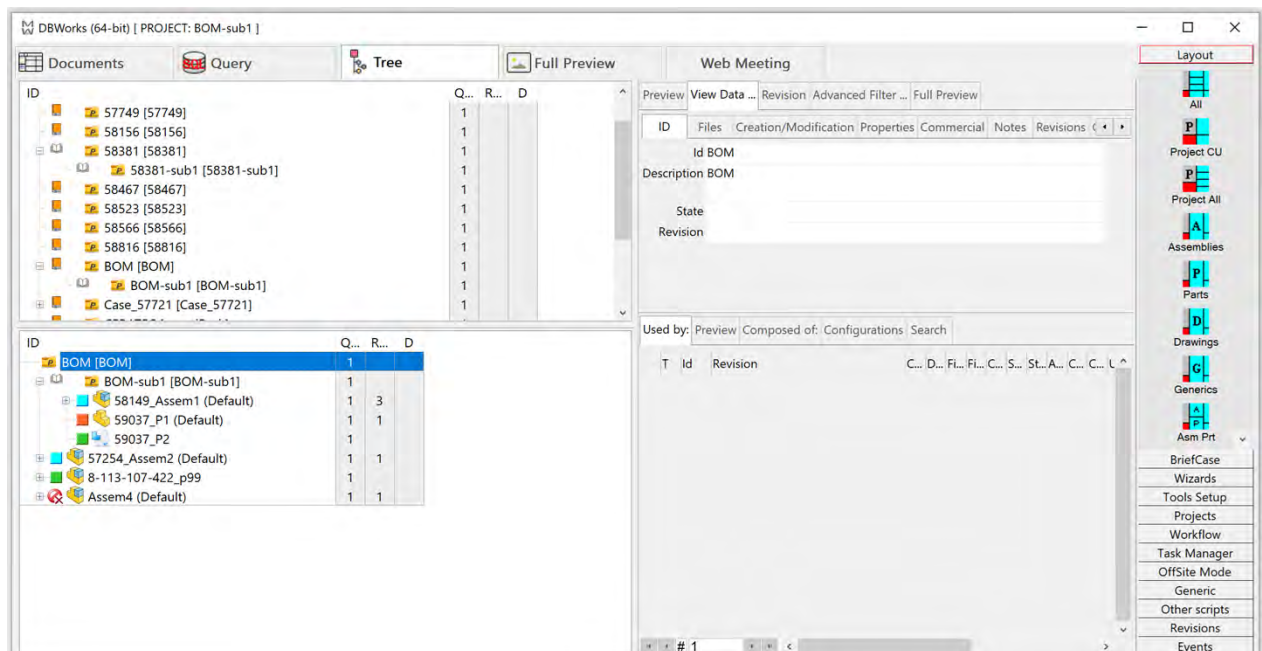


It is now possible to resize the Dialog to enlarge Project Tree visualization

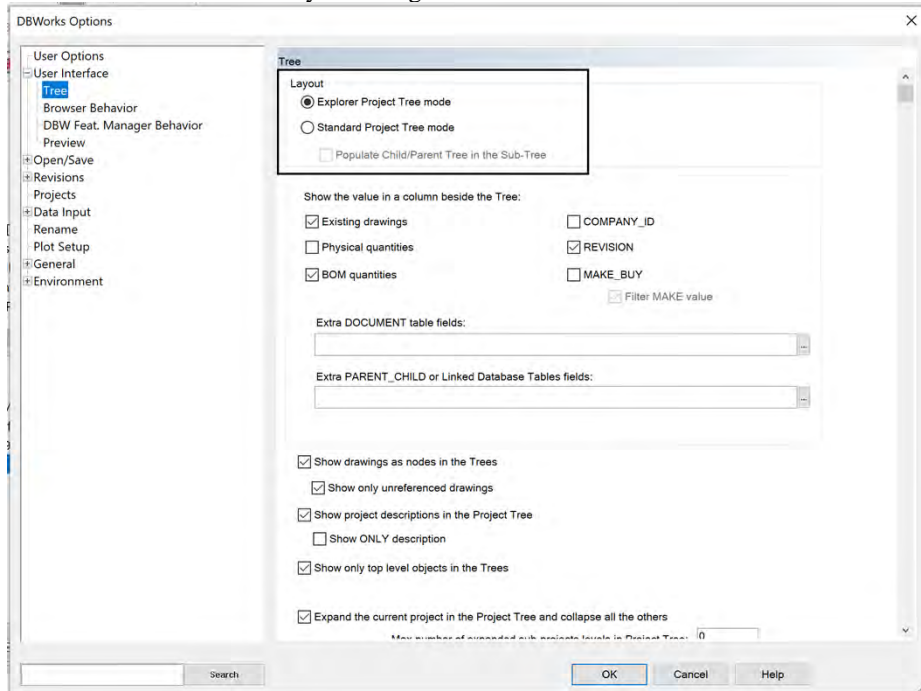


Explorer Project Tree mode.

This new tree layout let you split the Standard tree visualization into two different trees. In the main tree are shown only the projects, and in the sub-tree is shown the child-tree of the selected element in the main tree. This mode will notably enhance the performance of the control.

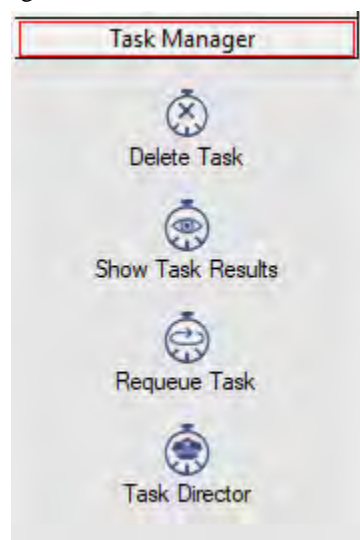


This mode can be enabled by checking the radio button in User Interface -> Tree -> Explorer Project Tree mode



Task Manager Icons

Updated all the Task Manager Icons in the shortcut bar and in the new UI button



Improved Document Selector Dialog

If a user modifies a column width

Approve the Part/Assembly and all the Components

Select the documents you wish to Approve.

	OK		Id	Revision
1	<input checked="" type="checkbox"/>		59065-INV-Part2a (Master)	4

the Document Selector Dialog will keep the new width in memory so that the user no longer has to change the width every time the dialog comes up.

Workflow

Support for the tooltips to be displayed on states

States can now display tooltips like 'Enter all required information into the ERP' as a reminder when you move the mouse over the state in the workflow panel.

The tooltip is editable in the Workflow Designer in the dialog where you already can edit the state properties.

Web Client

Architectural changes

The COM Plus components have been joined into one and the COM interactions have been greatly reduced, allowing for the simplification of the code and of the setup, from which 2 MSI have been removed.

Obsolete options

User interface->Preview

The following 2 options:

- "Max. file size for vectorial DWG preview (0=always vectorial):"
- "Max. file size for 3D preview (0=any size):"

are deprecated and no longer in use.

Preview

☐ Enable vectorial preview of ME10 files

☐ Create temporary files in a different directory

Temporary files root:

Max. file size for vectorial DWG preview (0=always vectorial):

1

Vectorial preview background color:

☒ Always preview locked files

Never preview locked files with size greater than ...

500000

Max. resolution for high quality TIF preview (0=always high):

5000

Max. file size for 3D preview (0=any size):

1

☐ Use OnShowPreviewLabel.LST script