

Windchill Extension Test Plan

Extension Platform Validation Plan

Details	
Generated	2025/01/26 23:40
Group Id	com.wincomplm
Artifact Id	wex-platform-testplan-validation
Name	Extension Platform Validation Plan
Version	2.0
Beta	No
Windchill Version	13.0
Description	The platform within Windchill that manages extensions
System Extension	Yes

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Overview & Setup

ID	OV1	Category	Functional	Security	NA	Execution	Manual	Reference	
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Description

Version **2.0.2**Windchill Version **13.0**


Click the link below to download the latest version of this test plan

Testing for the new Wincom Extension Platform 2.0 features that will be included in Windchill.
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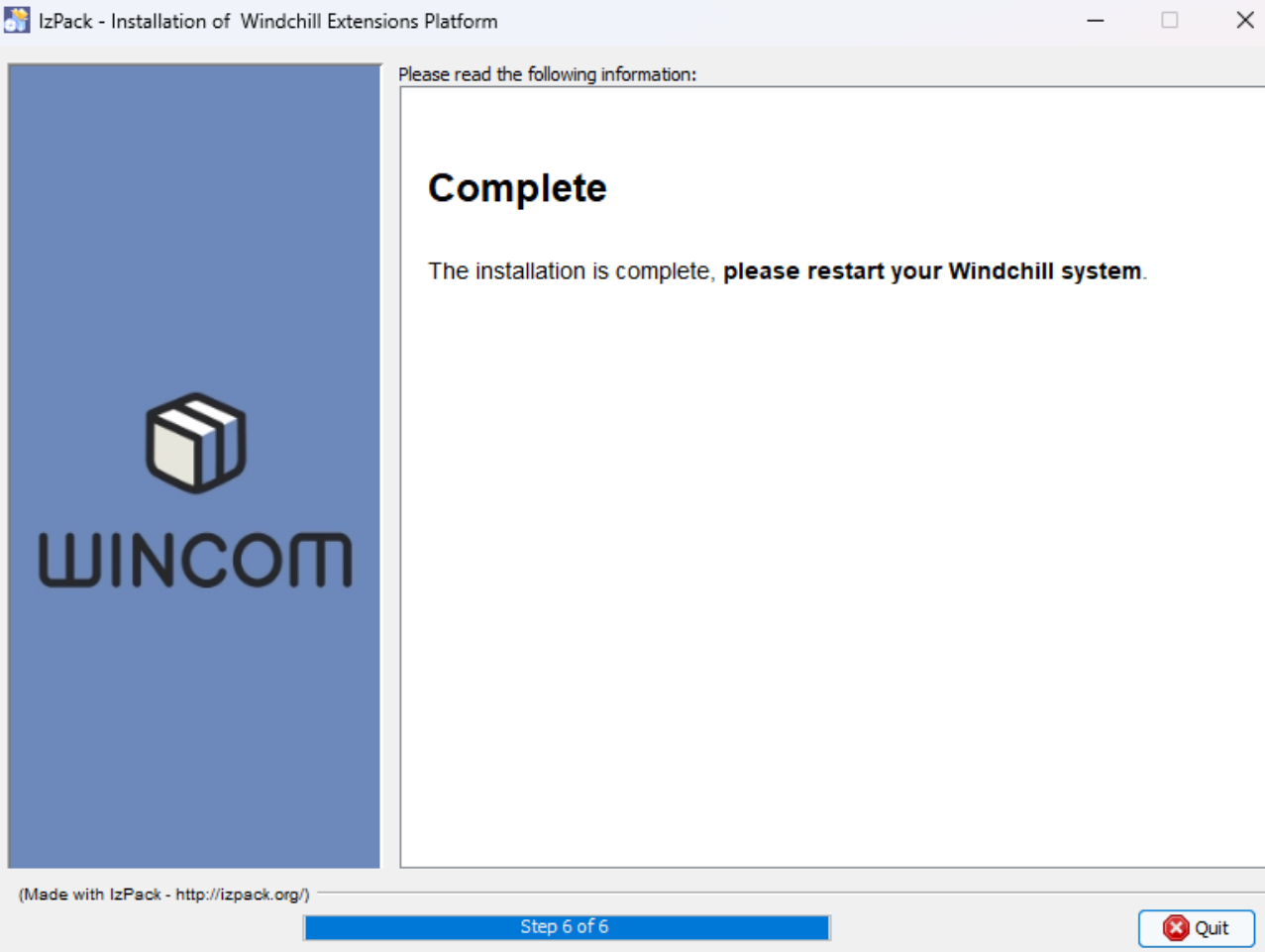
This test plan is functional only and does not test security.

<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-platform-testplan-validation.release.testplan.pdf>

Overview & Setup

Install test version									
ID	ST1	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Windchill will have the latest platform preinstalled but the latest version can be installed using the installer.									
Actions									
<p>Download the installer and run it from a Windchill Shell</p> <p>Click the link below to download the latest installer</p> <p>Windows:java -jar wex-platform-xxxxx.jar Linux (no GUI):java -jar wex-platform-xxxxx.jar -console</p> <p>Click the link below to download the latest installer</p> <p>https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-platform-2.0-13.0.2-SNAPSHOT.jar</p>									
									
Result									
Install complete									

Set Windchill+ to be default									
ID	ST11	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Set the WEX_WCPLUS environment variable to ensure WC plus is preset									
Actions									
Set the WEX_WCPLUS variable to true									
<pre> USERDOMAIN=AzureAD USERDOMAIN_ROAMINGPROFILE=AzureAD USERNAME=SimonHeath USERPROFILE=C:\Users\SimonHeath WEX_WCPLUS=true windir=C:\Windows WT_HOME=C:\ptc\Windchill_13.0\Windchill ZES_ENABLE_SYSMAN=1 </pre>									
Result									
On startup the variable is reported									
<pre> INFO : wt.method.server.startup - Creating com.ptc.tomcat.embedded. INFO : wt.pom.statementCache.summary - StatementCache: wt.util.Cach INFO : wt.pom.statementCache.summary - StatementCache: wt.util.Cach INFO : wt.system.out - Winchill Extensions: WEX WCPLUS set INFO : wt.pom.statementCache.summary - StatementCache: wt.util.Cach INFO : wt.pom.statementCache.summary - StatementCache: wt.util.Cach INFO : com.ptc.netmarkets.util.misc.StandardNmActionService.xmlInit INFO : com.ptc.netmarkets.util.misc.StandardNmActionService.xmlInit </pre>									

Restart after install of new platform									
ID	ST12	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Checking the server starts correctly after install									
Actions									
Restart server									
Result									
 <p>IzPack - Installation of Windchill Extensions Platform</p> <p>Please read the following information:</p> <h2>Complete</h2> <p>The installation is complete, please restart your Windchill system.</p> <p>(Made with IzPack - http://izpack.org/)</p> <p>Step 6 of 6</p> <p>Quit</p>									

Check the audit WC+ is set to true

ID	ST13	Category	Functional	Security	NA	Execution	Manual	Reference	
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Description

The setting should be true

Actions

windchill® wcadmin

Search | Browse

Extension Manager

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions	Configura
Audit	com.wincomplm	wex-audit	2.0-SNAI			Release					

Result

General

Windchill+ only

☒ Yes ☐ No

Update

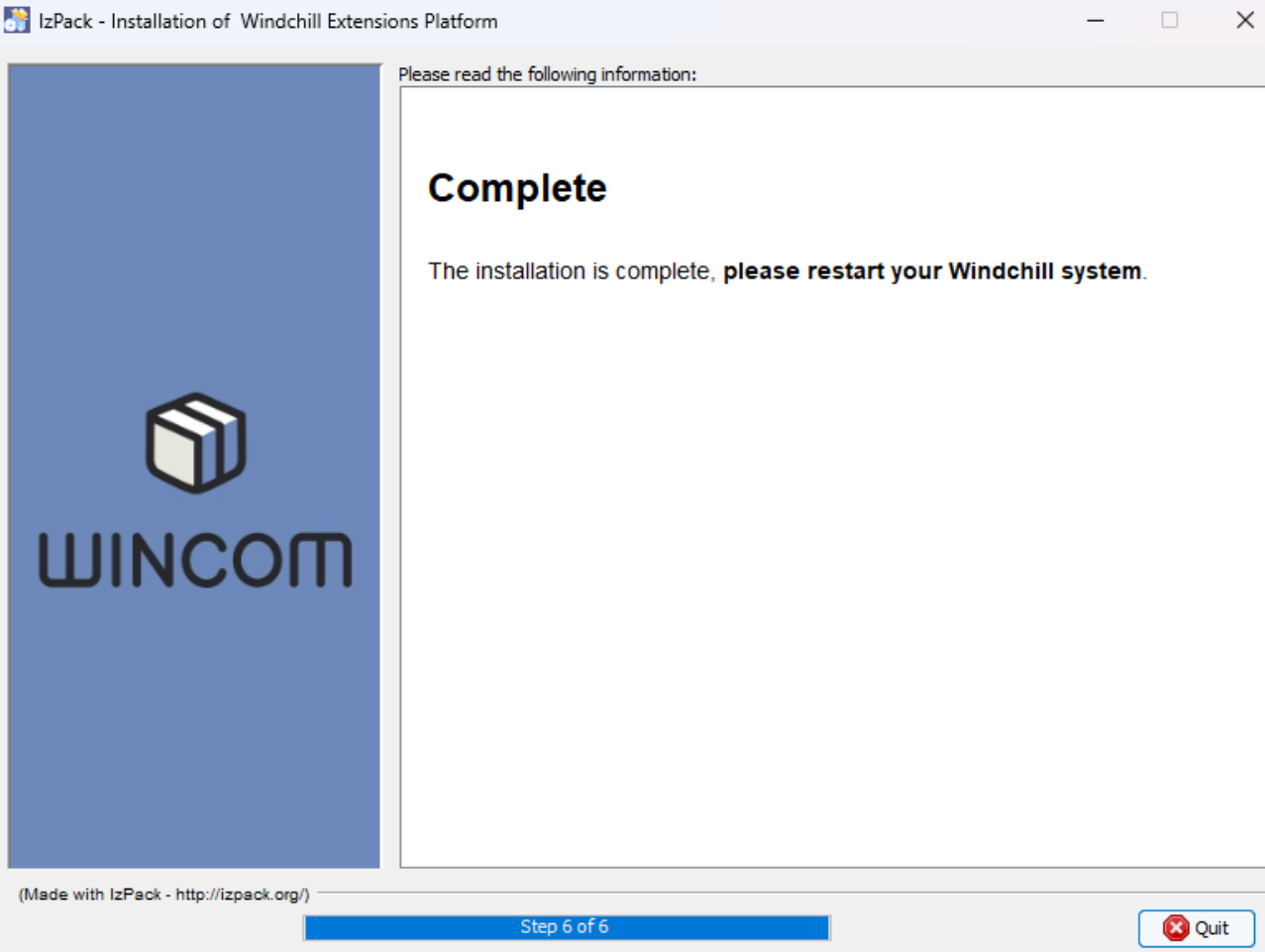
WINCOM

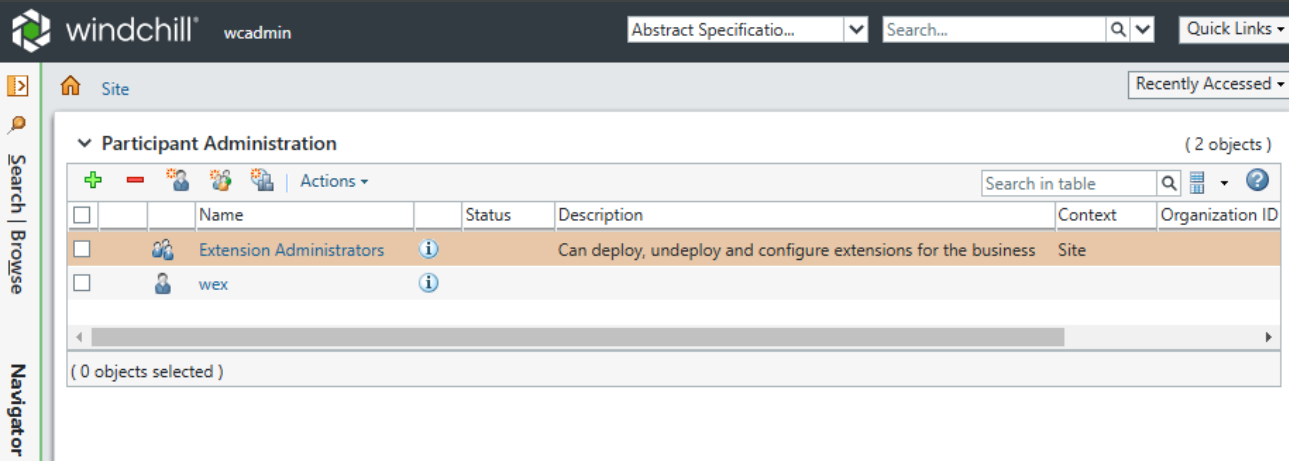
Confidential

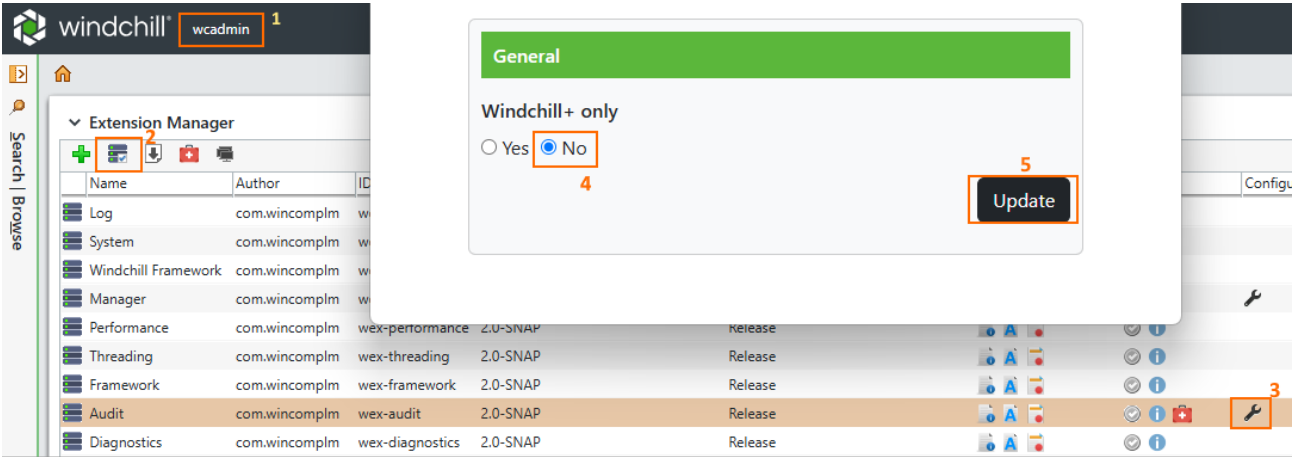



















8

Check the audit WC+ is not changeable									
ID	ST14	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
It should not be possible even for site admin to set this flag to false if the enviroment variable is set									
Actions									
<div> <div>General</div> <div> Windchill+ only <input type="radio"/> Yes <input checked="" type="radio"/> No </div> <div>Update</div> </div>									
Result									
<div> <div>General</div> <div> <div>Cannot set Windchill+ to false as the WEX_WCPLUS environment variable is set to true</div> <input type="radio"/> Yes <input checked="" type="radio"/> No </div> <div>Update</div> </div>									

Set Windchill+ to be not be default									
ID	ST15	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Set the WEX_WCPLUS environment to false									
Actions									
Set the WEX_WCPLUS variable to false									
Result									
Check the system settings									

Restart after reset of variable									
ID	ST2	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Checking the server starts correctly									
Actions									
Restart server									
Result									
 <p>IzPack - Installation of Windchill Extensions Platform</p> <p>Please read the following information:</p> <h2>Complete</h2> <p>The installation is complete, please restart your Windchill system.</p> <p>(Made with IzPack - http://izpack.org/)</p> <p>Step 6 of 6</p> <p>Quit</p>									

Create Wex Manager new user									
ID	ST3	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
<p>We will use three users during the testing</p> <ul style="list-style-type: none"> + Site Admin - Will be able to perform all functions including system configuration (wadmin) + Extension Admin - A user that can deploy and undeploy approved extensions (wex) + Standard User - A user with no special privileges (nowex) 									
Actions									
<p>Create a new user (wex) and add them to this group Create a new user (nowex) and do not add them to this group</p>									
Result									
<p>The Group Extension Administrators is present (does not need to be manually created)</p>  <p>The screenshot shows the Windchill 'wadmin' interface. The 'Participant Administration' section is expanded, showing a table with two objects: 'Extension Administrators' and 'wex'. The 'Extension Administrators' group is highlighted, showing its description and context. The 'wex' user is listed below it. The interface includes a search bar, a 'Quick Links' dropdown, and a 'Recently Accessed' dropdown. The 'Search Browse Navigator' sidebar is visible on the left.</p>									

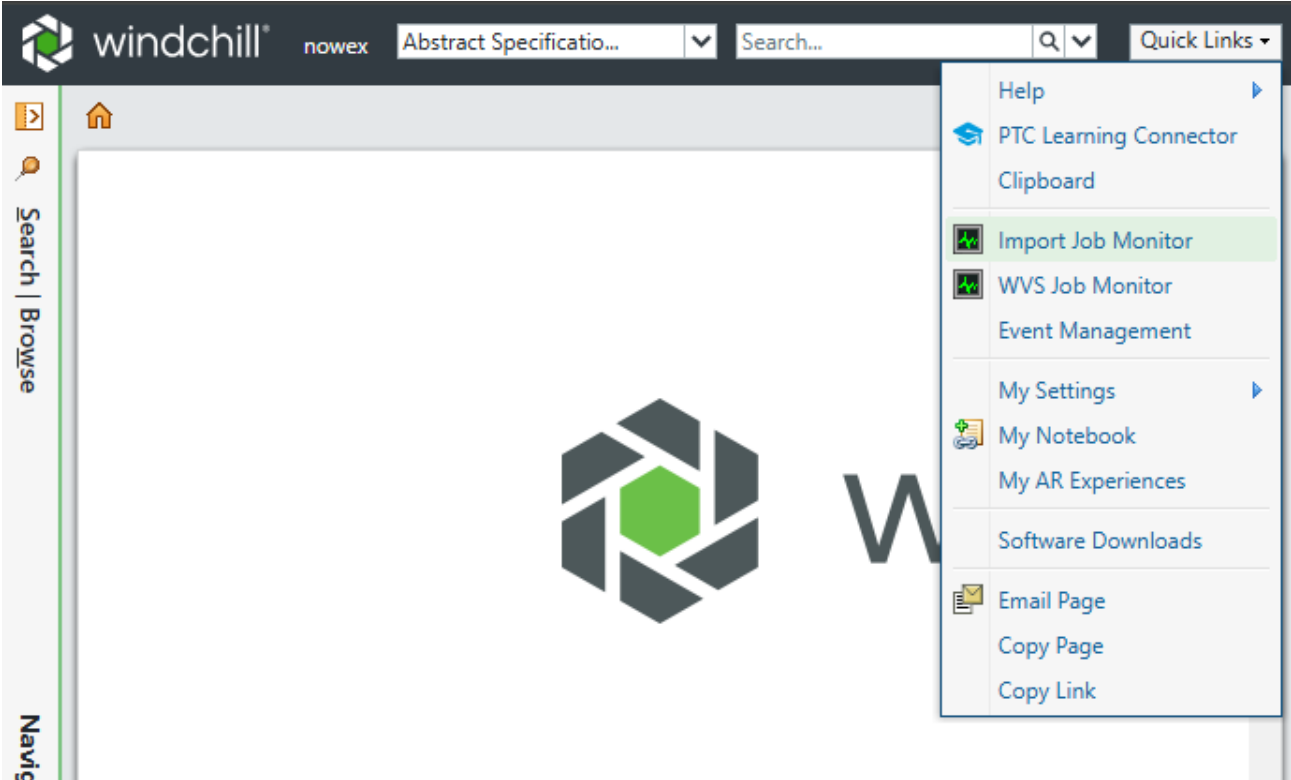
Ensure all Extensions are allowed to be installed																																							
ID	ST4	Category	Functional	Security	NA	Execution	Manual	Reference																															
Description																																							
Must be done as a site admin																																							
Actions																																							
<p>Login as site admin and access the Extension Manager (1)</p> <p>Access system extensions (2)</p> <p>Access wex-audit configuration (3)</p> <p>Change to Windchill+ false, to should be preset to true(4)</p> <p>Update (5)</p>																																							
<div><div><div><div><div> windchill</div><div>wadmin1</div></div><div></div><div>Search Browse</div></div><div><div>Extension Manager</div><div></div><table><thead><tr><th>Name</th><th>Author</th><th>ID</th></tr></thead><tbody><tr><td>Log</td><td>com.wincomplm</td><td>w</td></tr><tr><td>System</td><td>com.wincomplm</td><td>w</td></tr><tr><td>Windchill Framework</td><td>com.wincomplm</td><td>w</td></tr><tr><td>Manager</td><td>com.wincomplm</td><td>w</td></tr><tr><td>Performance</td><td>com.wincomplm</td><td>wex-performance</td></tr><tr><td>Threading</td><td>com.wincomplm</td><td>wex-threading</td></tr><tr><td>Framework</td><td>com.wincomplm</td><td>wex-framework</td></tr><tr><td>Audit</td><td>com.wincomplm</td><td>wex-audit</td></tr><tr><td>Diagnostics</td><td>com.wincomplm</td><td>wex-diagnostics</td></tr></tbody></table></div></div><div><div>General</div><div>Windchill+ only</div><div><input type="radio"/> Yes <input checked="" type="radio"/> No4</div><div>Update5</div></div><div><div><div><div><div></div><div><div>Release</div><div>Release</div><div>Release</div><div>Release</div><div>Release</div></div></div><div></div></div><div></div><div>Config</div></div></div></div>										Name	Author	ID	Log	com.wincomplm	w	System	com.wincomplm	w	Windchill Framework	com.wincomplm	w	Manager	com.wincomplm	w	Performance	com.wincomplm	wex-performance	Threading	com.wincomplm	wex-threading	Framework	com.wincomplm	wex-framework	Audit	com.wincomplm	wex-audit	Diagnostics	com.wincomplm	wex-diagnostics
Name	Author	ID																																					
Log	com.wincomplm	w																																					
System	com.wincomplm	w																																					
Windchill Framework	com.wincomplm	w																																					
Manager	com.wincomplm	w																																					
Performance	com.wincomplm	wex-performance																																					
Threading	com.wincomplm	wex-threading																																					
Framework	com.wincomplm	wex-framework																																					
Audit	com.wincomplm	wex-audit																																					
Diagnostics	com.wincomplm	wex-diagnostics																																					
Result																																							
Configuration updated																																							

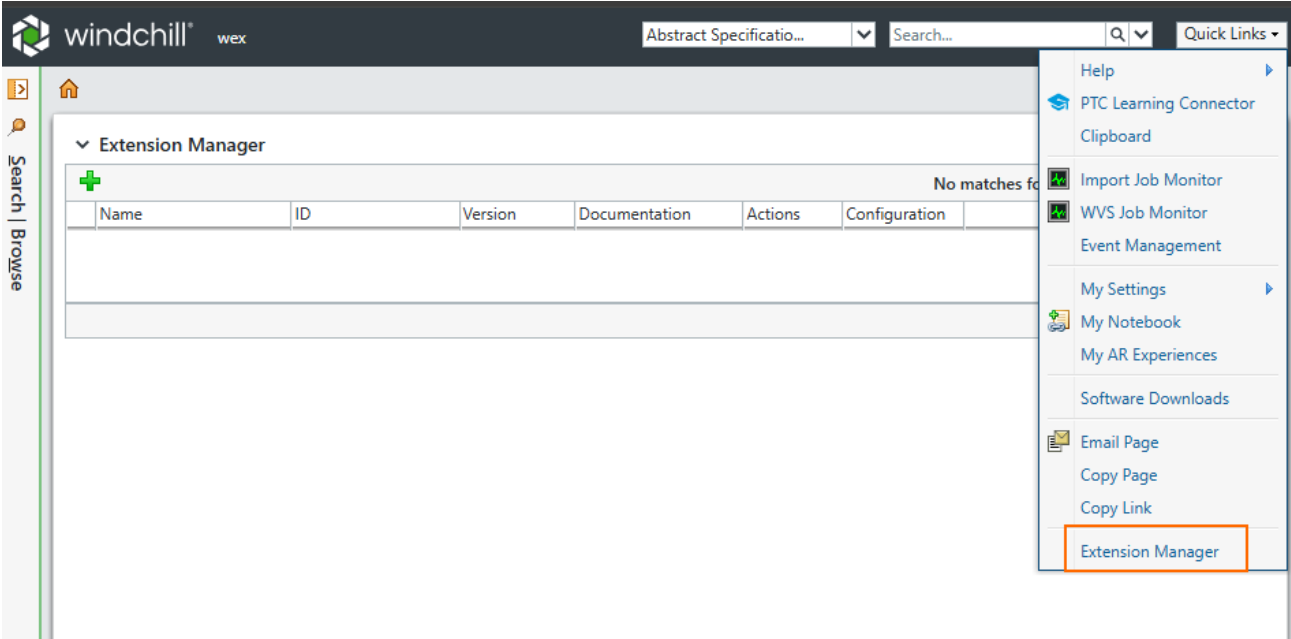
Manager

ID	M1	Category	Functional	Security	NA	Execution	Manual	Reference	
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This section will test the manager exposed to nominated users and works as expected.
Test extensions are provided for 13.0

Extension Manager

Check standard user has no access to the extension manager									
ID	M2	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Login as standard user (nowex) Standard users, those not site admin or in the extension administrators group, do not see the manager									
Actions									
Access the quick links menu to ensure no manager is present									
									

Check wex user has access to the extension manager									
ID	M3	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Login as extension administrator (wex) Wex admin users do see the manager									
Actions									
Access the quick links menu to ensure manager is present									
Result									
 <p>The screenshot displays the Windchill WEX user interface. At the top, the 'windchill® wex' header is visible, along with a search bar and a 'Quick Links' dropdown menu. The 'Quick Links' menu is open, showing a list of options: Help, PTC Learning Connector, Clipboard, Import Job Monitor, WVS Job Monitor, Event Management, My Settings, My Notebook, My AR Experiences, Software Downloads, Email Page, Copy Page, Copy Link, and Extension Manager. The 'Extension Manager' option at the bottom of the list is highlighted with an orange rectangular box. In the background, the 'Extension Manager' section of the main interface is visible, showing a table with columns for Name, ID, Version, Documentation, Actions, and Configuration. The table currently displays 'No matches found'.</p>									

Check extension manager user can do an install of a signed extension

ID	M4	Category	Functional	Security	NA	Execution	Manual	Reference	
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Description

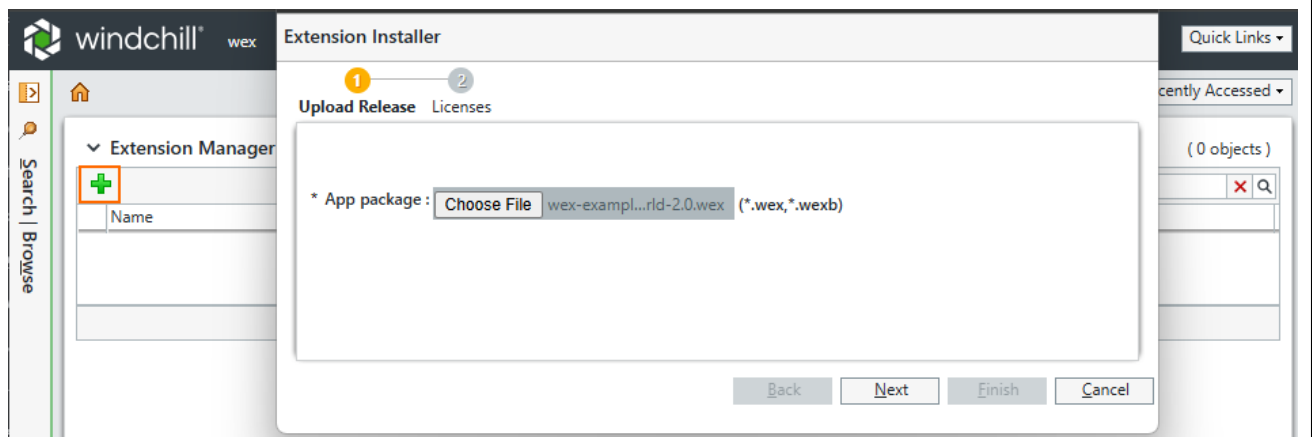
At this point the extension manager may install any signed extension. This is restricted in a later test

Actions

Download and deploy test extension

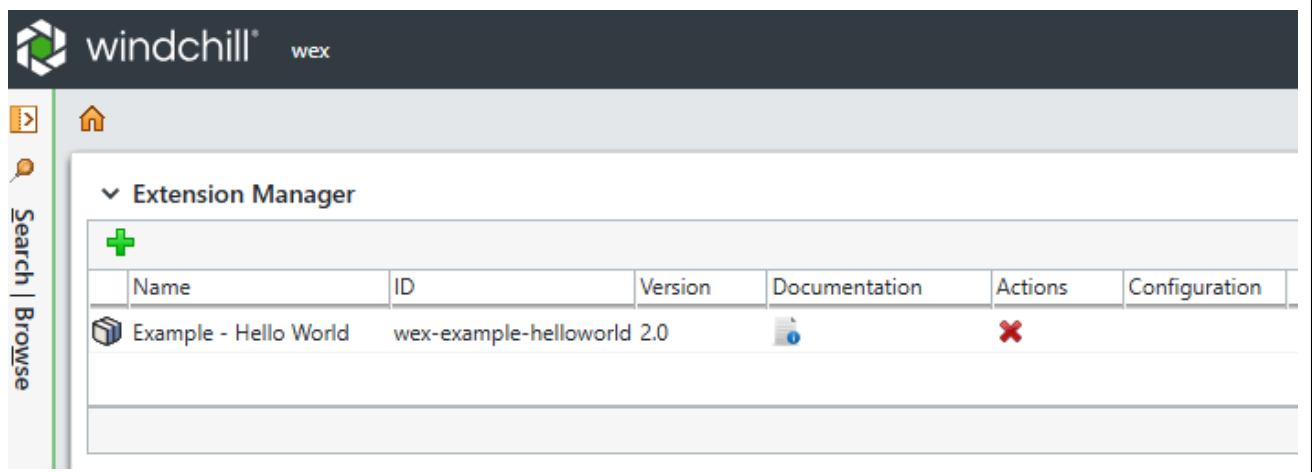
Click the link below to download the test extension

<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0.wex>



Result

Installation is successful



Undeploy an extension

ID	M5	Category	Functional	Security	NA	Execution	Manual	Reference	
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Description

Undeploy the extension deployed in previous step

Actions

The screenshot shows the Windchill 'Extension Manager' interface. A table lists the installed extension 'Example - Hello World' with ID 'wex-example-helloworld' and version '2.0'. The 'Actions' column for this extension contains a red 'X' icon, indicating the undeploy action.

Name	ID	Version	Documentation	Actions	Configuration
Example - Hello World	wex-example-helloworld	2.0			

Result

The screenshot shows a confirmation message from Windchill: 'CONFIRMATION: Undeploy OK'. Below the message, it states 'The extension has been removed from your system'. The 'Extension Manager' table below is empty, confirming the removal of the extension.

CONFIRMATION: Undeploy OK
The extension has been removed from your system

Name	ID	Version	Documentation	Actions	Configuration
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Check extension manager user cannot do an install of a snapshot, beta or trial

ID

M6

Category

Functional

Security

NA

Execution

Manual

Reference

Description

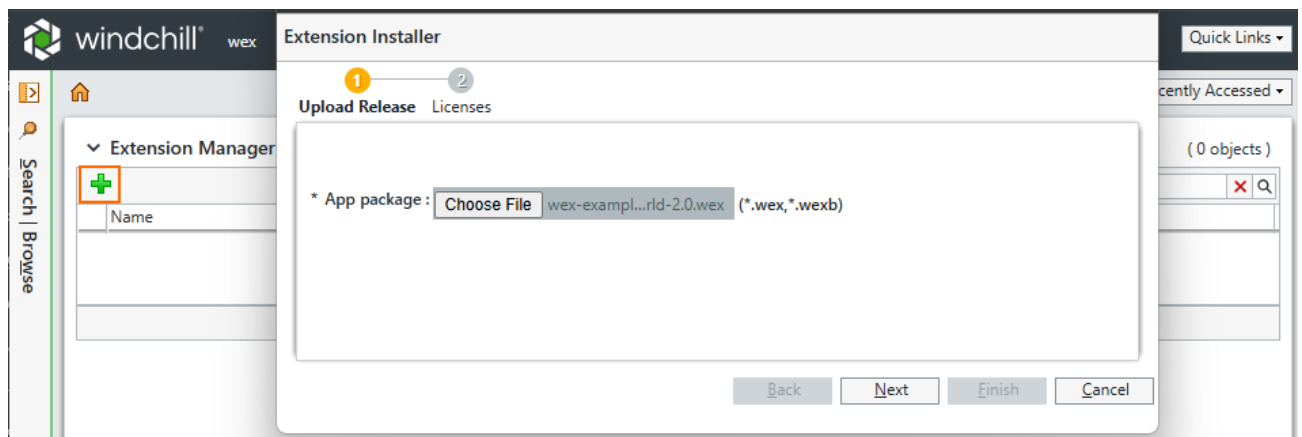
These are only allowed to be installed by a site admin

Actions

Download and deploy snapshot test extension

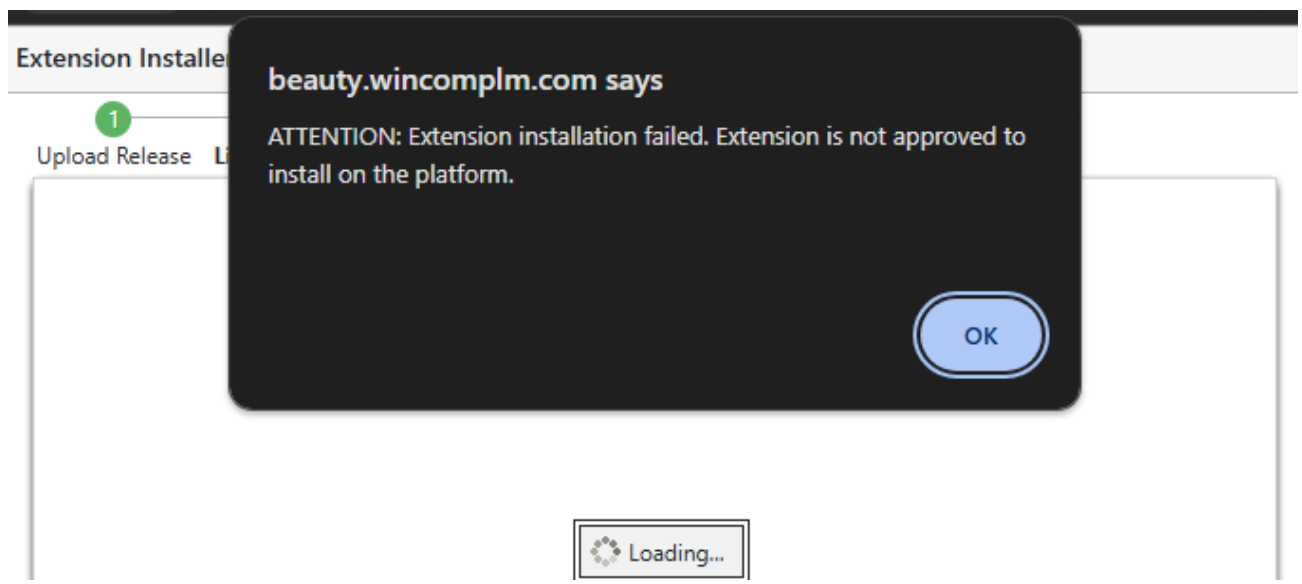
Click the link below to download the test extension

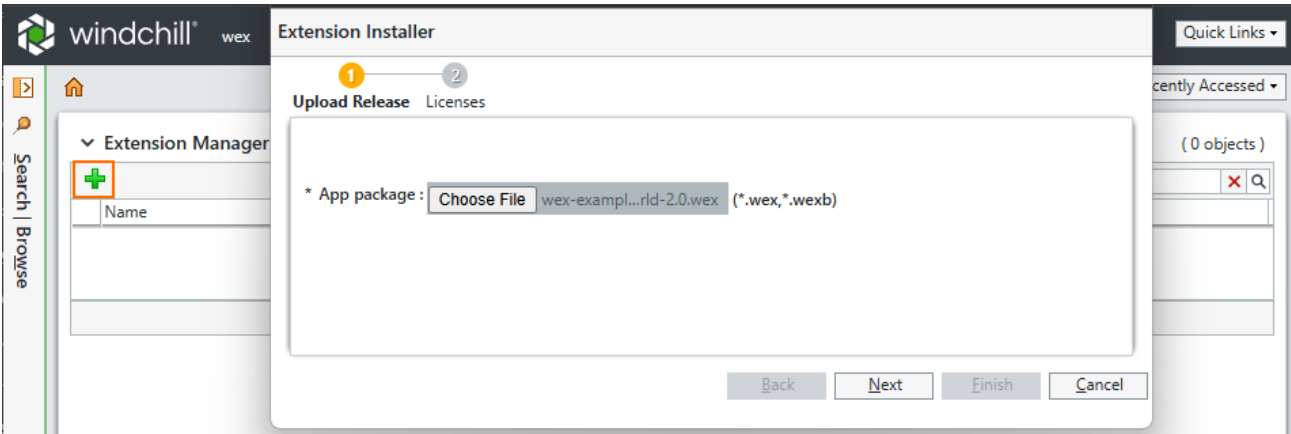
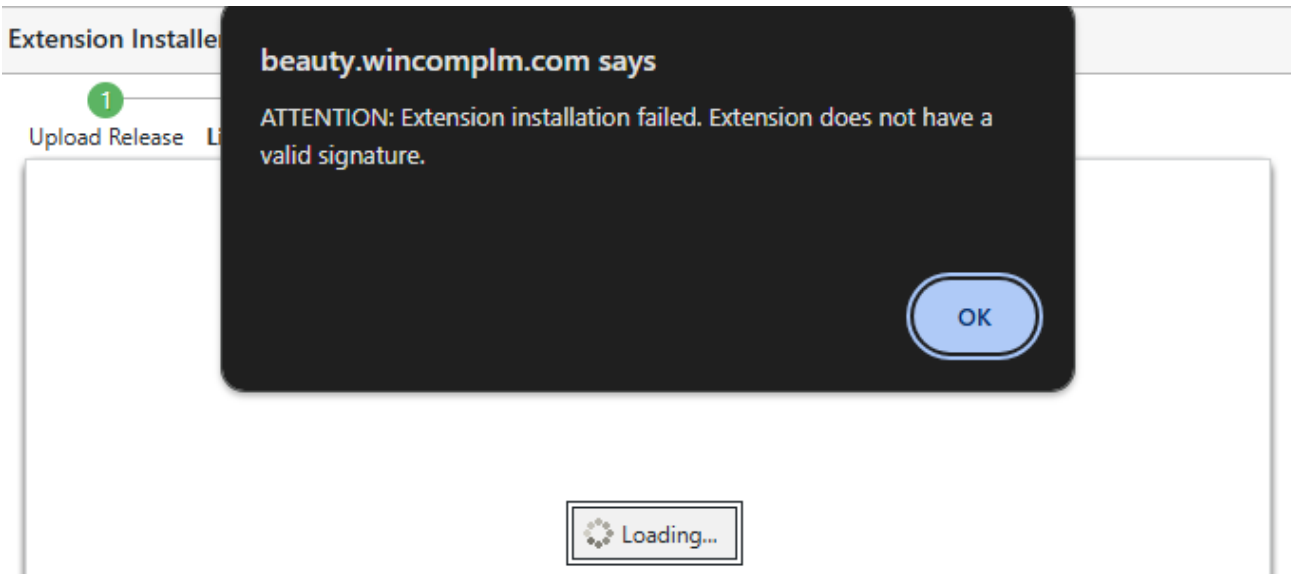
<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0-SNAPSHOT.wex>

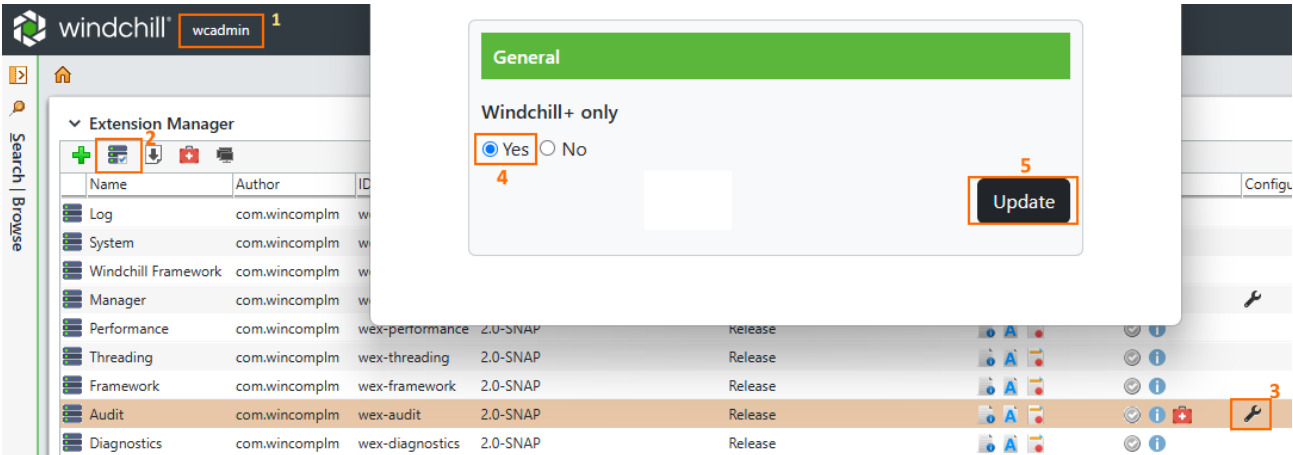
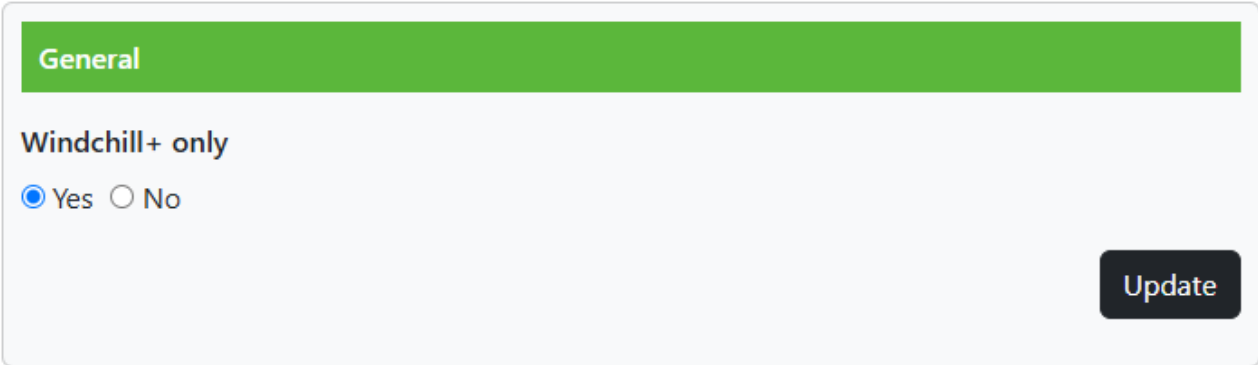


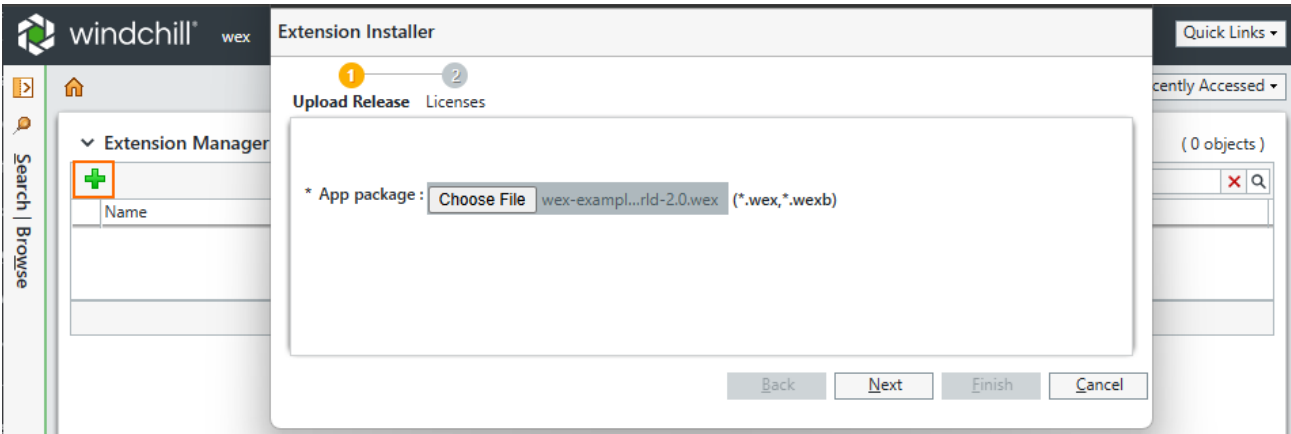
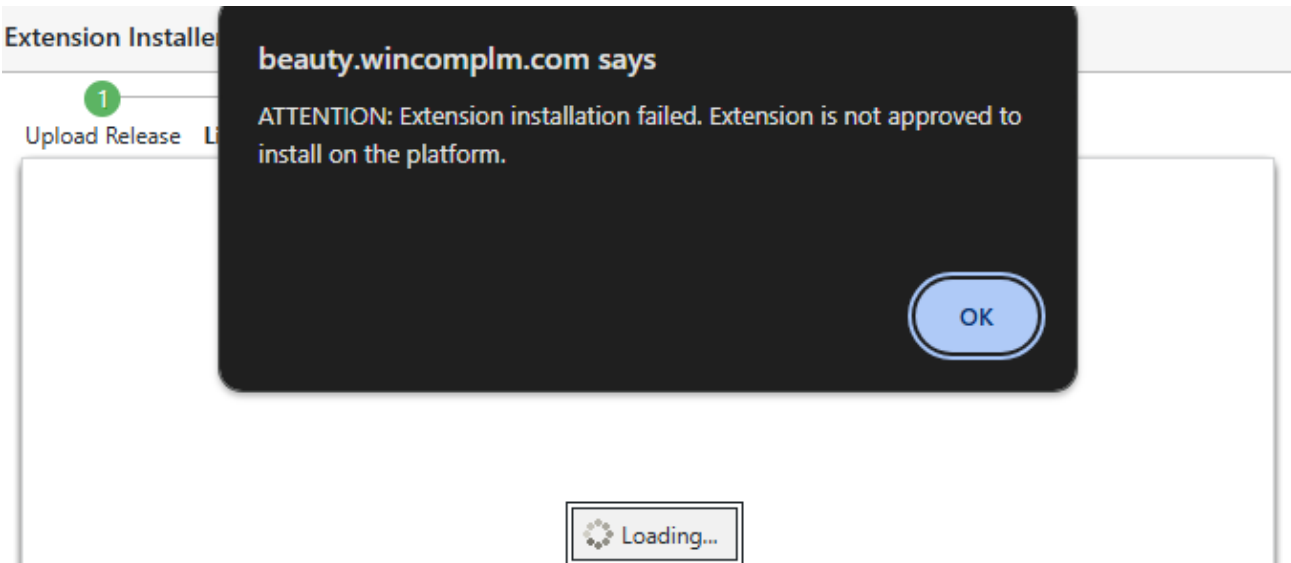
Result

Installation is unsuccessful



Check extension manager user cannot install unsigned									
ID	M7	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
This test is a user trying to install a wex with a tampered definition file									
Actions									
Download and deploy test extension									
Click the link below to download the test extension									
https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0-badsignature.wex									
									
Result									
Installation is unsuccessful									
									

Enable only Windchill+ are allowed to be installed									
ID	M8	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
<p>To restrict the system to only allow extension managers to install Windchill+ approved extensions. Must be done as a site admin</p>									
Actions									
<p>Login as site admin and access the Extension Manager (1) Access system extensions (2) Access wex-audit configuration (3) Change to Windchill+ (4) Update (5)</p>									
 <p>The screenshot shows the Windchill user interface. The user 'wadmin' is logged in. The 'Extension Manager' section is expanded, showing a list of extensions. The 'Audit' extension is selected, and its configuration is shown in a modal window. The 'Windchill+ only' option is set to 'Yes', and the 'Update' button is highlighted.</p>									
Result									
Configuration updated									
 <p>The screenshot shows the 'General' configuration for the 'Audit' extension. The 'Windchill+ only' option is set to 'Yes', and the 'Update' button is highlighted.</p>									

Check extension manager user cannot do an install of a non Windchill+ extension									
ID	M9	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
User may not install									
Actions									
Download and deploy test extension									
Click the link below to download the test extension.									
https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0.wex									
									
Result									
Installation is unsuccessful									
									

Check extension manager user can do an install of an approved Windchill+ extension

ID	M10	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

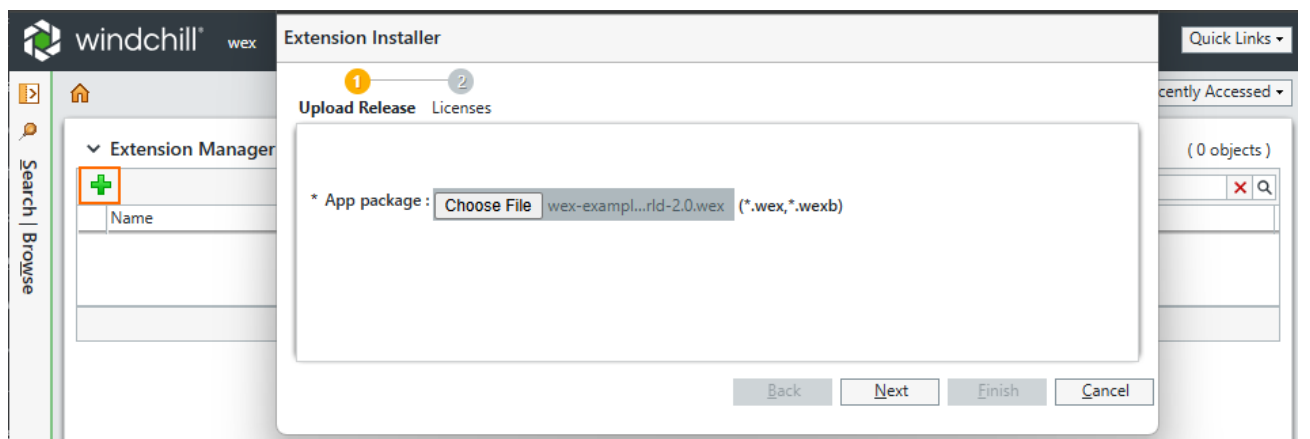
User may install approved extension

Actions

Download and deploy approved extension

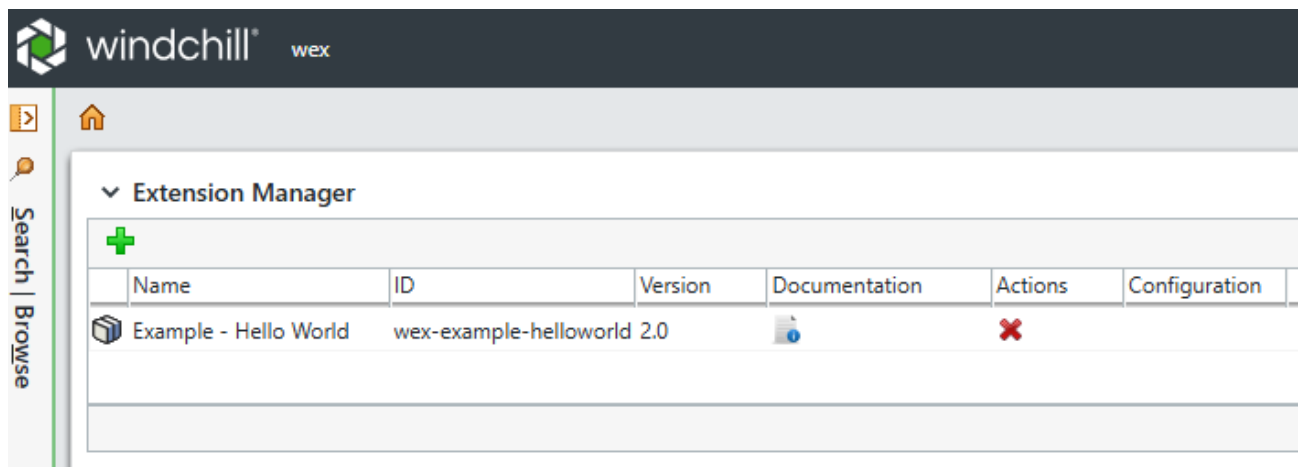
Click the link below to download the test extension

<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0-wcplus.wex>



Result

Installation is successful



Check extension is registered in DB

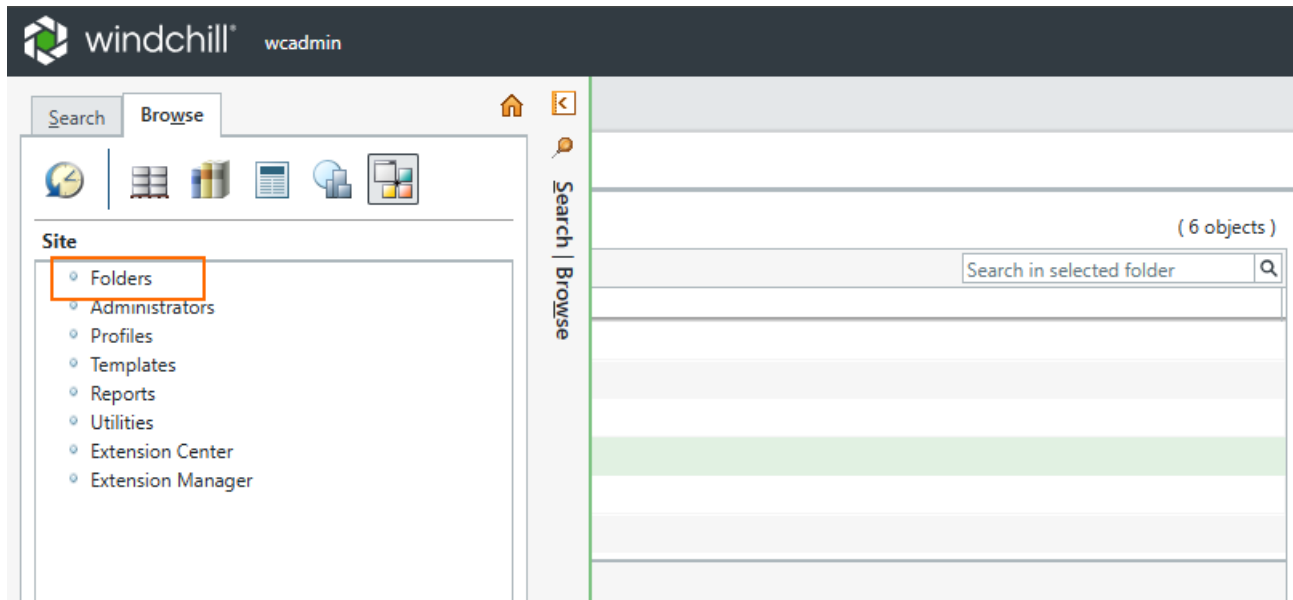
ID	M11	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

The extension should be in the DB as installed

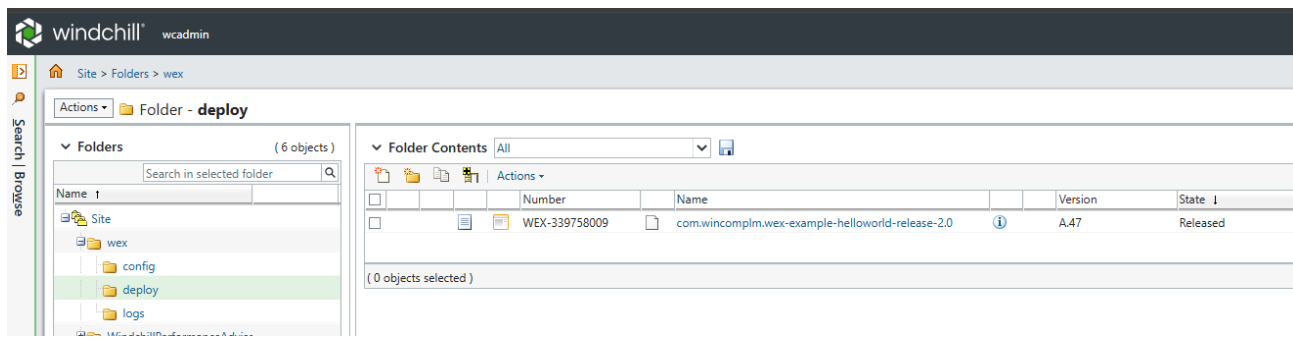
Actions

As site admin, check the wex folders area



Result

Record is visible as Released



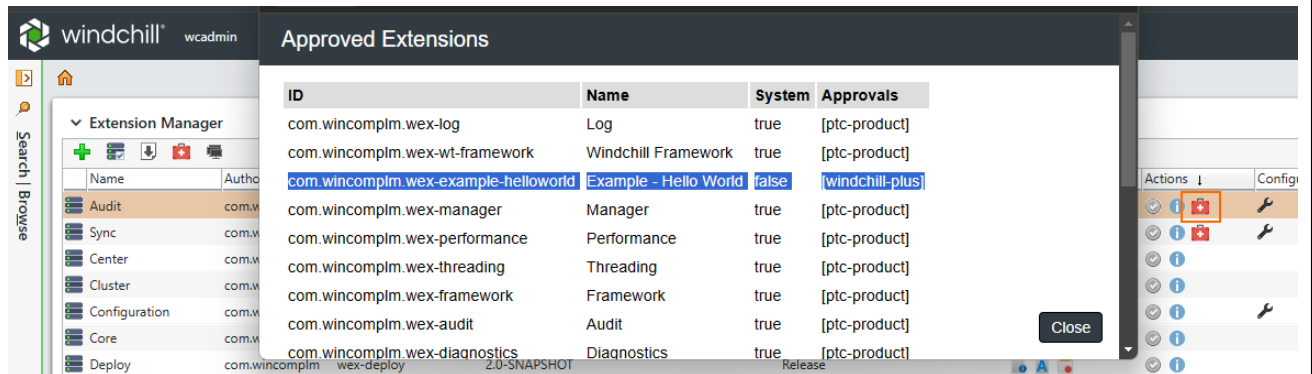
Check the audit show the new extensions

ID	M12	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

The extension should be seen as Windchill+ approved in the diags, must be done as a site admin

Actions

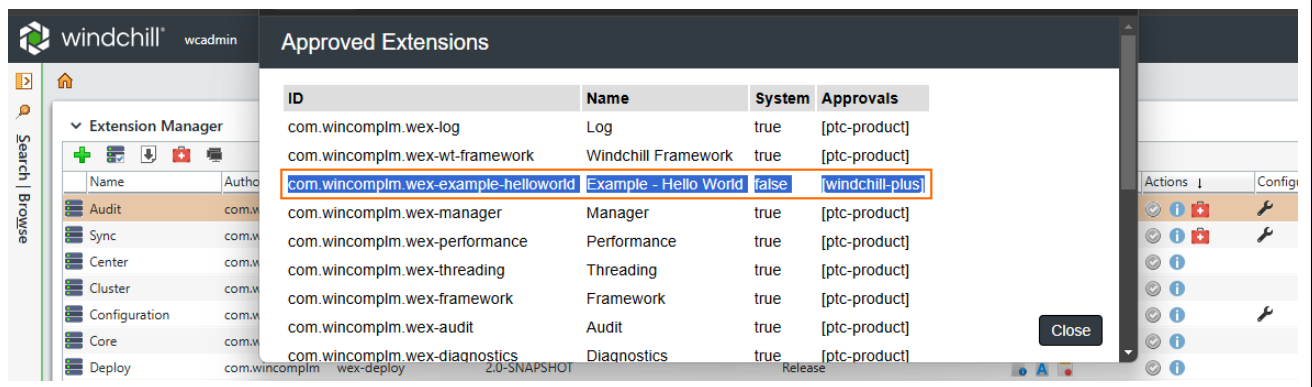


The screenshot shows the 'Approved Extensions' window in Windchill. The table lists various extensions, and the row for 'com.wincomplm.wex-example-helloworld' is highlighted. The 'Approvals' column for this extension shows '[windchill-plus]'. The 'System' column for this extension is 'false'.

ID	Name	System	Approvals
com.wincomplm.wex-log	Log	true	[ptc-product]
com.wincomplm.wex-wt-framework	Windchill Framework	true	[ptc-product]
com.wincomplm.wex-example-helloworld	Example - Hello World	false	[windchill-plus]
com.wincomplm.wex-manager	Manager	true	[ptc-product]
com.wincomplm.wex-performance	Performance	true	[ptc-product]
com.wincomplm.wex-threading	Threading	true	[ptc-product]
com.wincomplm.wex-framework	Framework	true	[ptc-product]
com.wincomplm.wex-audit	Audit	true	[ptc-product]
com.wincomplm.wex-diagnostics	Diagnostics	true	[ptc-product]

Result

Record is visible



This screenshot is identical to the one in the 'Actions' section, showing the 'Approved Extensions' window with the extension 'com.wincomplm.wex-example-helloworld' highlighted and its 'Approvals' column showing '[windchill-plus]'.

ID	Name	System	Approvals
com.wincomplm.wex-log	Log	true	[ptc-product]
com.wincomplm.wex-wt-framework	Windchill Framework	true	[ptc-product]
com.wincomplm.wex-example-helloworld	Example - Hello World	false	[windchill-plus]
com.wincomplm.wex-manager	Manager	true	[ptc-product]
com.wincomplm.wex-performance	Performance	true	[ptc-product]
com.wincomplm.wex-threading	Threading	true	[ptc-product]
com.wincomplm.wex-framework	Framework	true	[ptc-product]
com.wincomplm.wex-audit	Audit	true	[ptc-product]
com.wincomplm.wex-diagnostics	Diagnostics	true	[ptc-product]

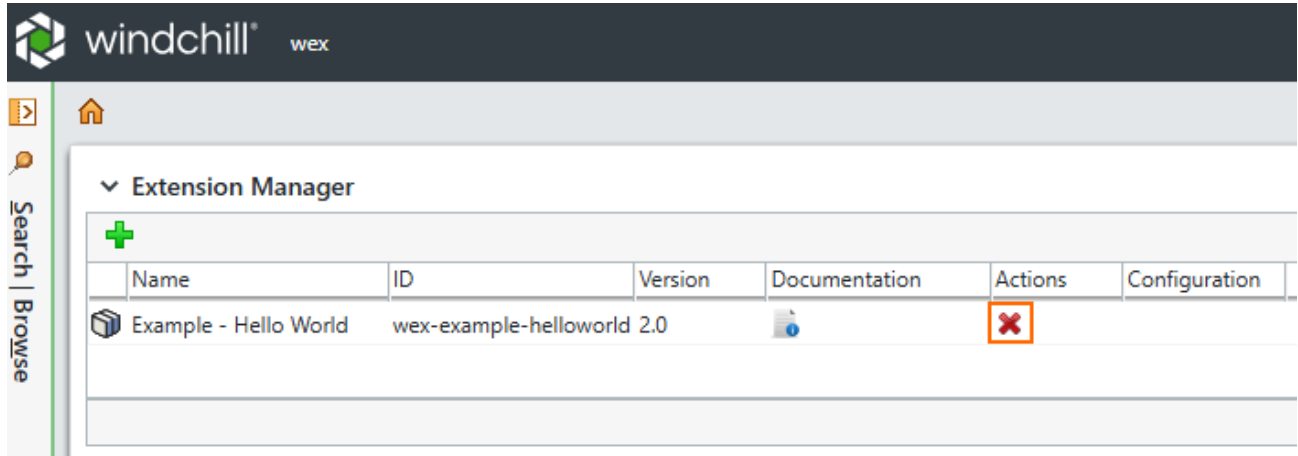
Undeploy and check unregistered in DB

ID	M13	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

The extension should be in the DB but as Inwork, must be done as a site admin

Actions

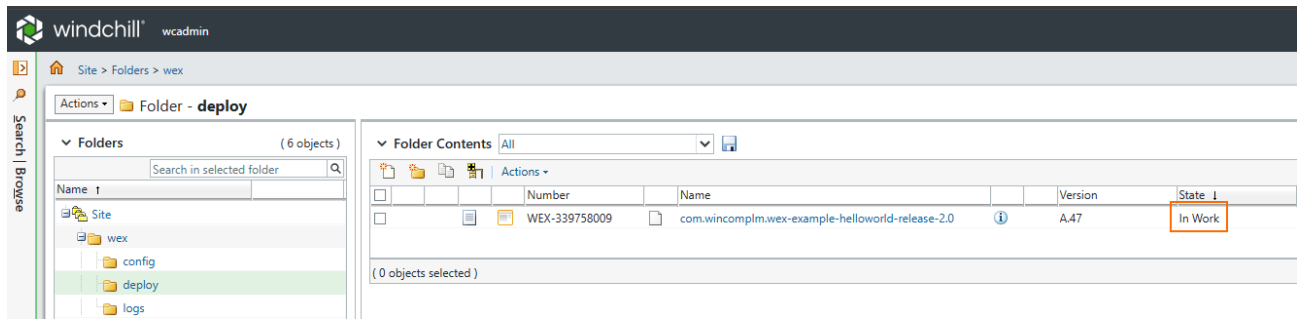


The screenshot shows the Windchill WEX Extension Manager interface. The header displays the Windchill logo and 'wex'. A sidebar on the left contains a 'Search | Browse' button. The main content area is titled 'Extension Manager' and features a table with the following columns: Name, ID, Version, Documentation, Actions, and Configuration. A single entry is listed: 'Example - Hello World' with ID 'wex-example-helloworld' and Version '2.0'. The 'Actions' column for this entry contains a red 'X' icon, indicating an error or a required action.

Name	ID	Version	Documentation	Actions	Configuration
Example - Hello World	wex-example-helloworld	2.0			

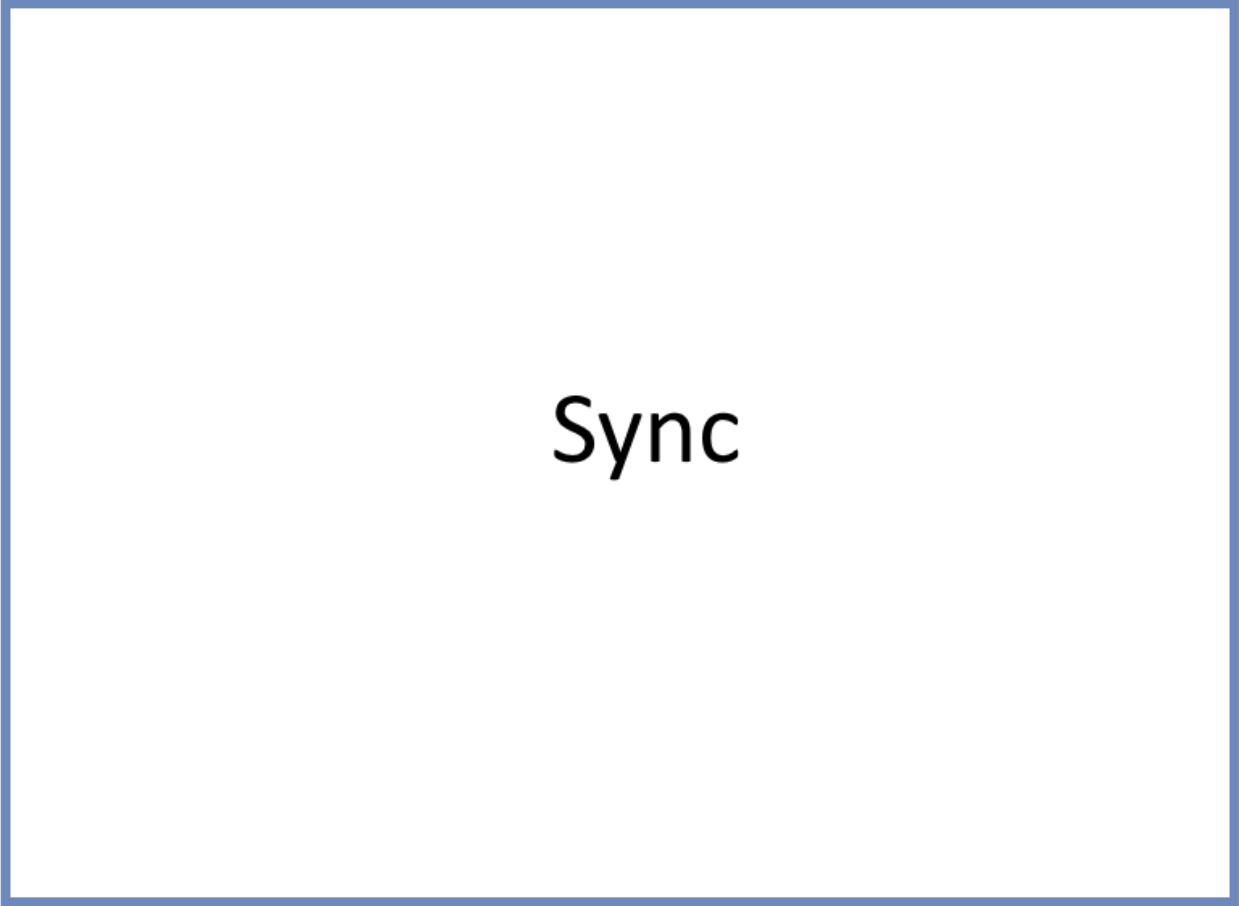
Result

Record is visible as Inwork



The screenshot shows the Windchill WCADMINSite interface. The header displays the Windchill logo and 'wadmin'. The breadcrumb trail indicates the path: 'Site > Folders > wex'. The left sidebar shows a tree view of folders, with 'wex' expanded to show 'config', 'deploy', and 'logs'. The main content area is titled 'Folder - deploy' and contains a table with the following columns: Number, Name, Version, and State. A single entry is listed: 'WEX-339758009' with Name 'com.wincomplm.wex-example-helloworld-release-2.0' and Version 'A.47'. The 'State' column for this entry contains the text 'In Work'.

Number	Name	Version	State
WEX-339758009	com.wincomplm.wex-example-helloworld-release-2.0	A.47	In Work

Sync									
ID	SN1	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
<p>Testing the way the platform syncs to the DB and new updates.</p> <p>All testing must be done as Site Admin.</p> <div>  </div>									

Turn off Windchill+ only

ID	SN2	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

To ensure valid testing, allow all installs

Actions

Set Windchill+ only to false

The screenshot shows the Windchill+ web interface. On the left, the 'Extension Manager' sidebar lists various components, with 'Audit' selected. The main content area displays the 'Config editor for Audit - Google Chrome' window. The 'General' tab is active, showing the 'Windchill+ only' setting. The 'No' radio button is selected, and the 'Update' button is highlighted with an orange box. The background shows a table of extensions with columns for Name, Author, Status, Actions, and Configuration.

Result

The audit config is updated

Turn of all syncs									
ID	SN3	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
As site admin turn off sync									
Actions									
<p>The screenshot shows the Windchill wadmin interface. On the left is the 'Extension Manager' sidebar with a list of extensions including Audit, Sync, Center, Cluster, Configuration, Core, Deploy, Diagnostics, Documentation, Framework, JUnit Test, License, Log, Manager, and Metrics. The 'Sync' extension is selected. The main panel displays the 'Sync' configuration page. It has a green header 'Sync'. Below it are two sections: 'Enable the database sync' and 'Enable the resource sync', each with radio buttons for 'Yes' and 'No', both currently set to 'No'. Below these is a 'List of items to sync' section with a '+' button and a list containing 'com.wincomplm.*'. At the bottom is a 'Sync Frequency (in minutes)' field set to '1' and an 'Update' button. On the right side of the interface, there is a vertical list of actions and configurations, with the 'Sync' action highlighted in orange.</p>									

Deploy test extension

ID	SN3.1	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-------	----------	------------	----------	----	-----------	--------	-----------	--

Description

Deploy an extension that will be present in the history

Actions

Download and deploy test extension

Click the link below to download the test extension

<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0.wex>

Result

Installation is successfull

Undeploy the extension

ID	SN3.2	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-------	----------	------------	----------	----	-----------	--------	-----------	--

Description

Undeploy the extension deployed in previous step

Actions

The screenshot shows the Windchill WEX Extension Manager interface. A table lists the installed extensions. The first entry is 'Example - Hello World' with ID 'wex-example-helloworld' and version '2.0'. In the 'Actions' column for this entry, there is a red 'X' icon, indicating that the extension is ready to be undeployed.

Name	ID	Version	Documentation	Actions	Configuration
Example - Hello World	wex-example-helloworld	2.0			

Result

The screenshot shows the same Windchill WEX Extension Manager interface after the undeployment. A green checkmark icon is displayed next to the text 'CONFIRMATION: Undeploy OK'. Below this, a message states 'The extension has been removed from your system'. The table below is now empty, confirming that the 'Example - Hello World' extension has been successfully removed.

CONFIRMATION: Undeploy OK
The extension has been removed from your system

Name	ID	Version	Documentation	Actions	Configuration
------	----	---------	---------------	---------	---------------

Enable an extension to be installed from the DB

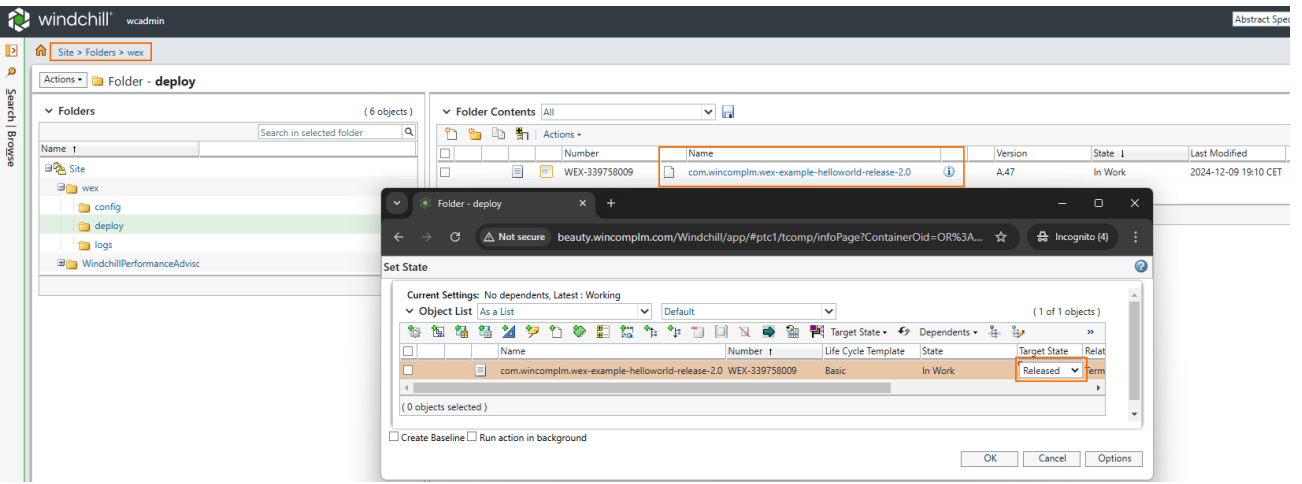
ID	SN4	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

By setting the record to released the extension will be installed by sync

Actions

As site admin set a previously installed extension to Released



Result

The document is set to released

Check the system detects the record is valid

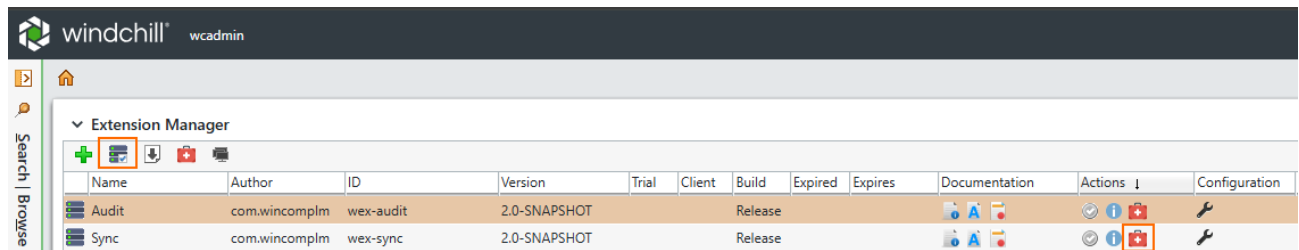
ID	SN5	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

The diags will show that this extension is ready to deploy.

This features allows this system to maintain the DB as as the single source of truth for clusters and containerized systems.

Actions



windchill® wcadmin

Extension Manager

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions ↓	Configuration
Audit	com.wincomplm	wex-audit	2.0-SNAPSHOT			Release				✓ ⓘ ⚙	⚙
Sync	com.wincomplm	wex-sync	2.0-SNAPSHOT			Release				✓ ⓘ ⚙	⚙

Result

Sync Extensions

Database Sync

ID	Version	DB Version	Needs Sync	DB older	On DB	On Disk
com.wincomplm.wex-example-helloworld		2.0	true	false	true	false

1 item(s) require a sync

Resource Sync

ID	Version	Resource Version	Needs Sync	On Disk
----	---------	------------------	------------	---------

Setup sync from the DB

ID	SN6	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

Set the sync to read the DB and update the system if required

Actions

Set sync so that the DB sync is enabled but the resource is not

The screenshot shows the Windchill wadmin interface with the 'Extension Manager' sidebar. A 'Config editor for Sync - Google Chrome' window is open, displaying the 'Sync' configuration page. The page has a green header 'Sync'. Below it, there are two sections: 'Enable the database sync' with radio buttons for 'Yes' (selected) and 'No', and 'Enable the resource sync' with radio buttons for 'Yes' and 'No' (selected). Below these is a 'List of items to sync' section with a '+' button and a list item 'com.wincomplm.*' with a '-' button. At the bottom, there is a 'Sync Frequency (in minutes)' field with the value '1' and an 'Update' button. The background shows the 'Extension Manager' sidebar with various categories like Log, System, Windchill Framework, Manager, Performance, Threading, Framework, Audit, Diagnostics, Documentation, Core, License, Sync, Kernel, Store, Center, Windchill Services S, Deploy, Configuration, Cluster, System Configurati, JUnit Test, and Metrics.

Result

After a few minutes the extension appears as installed. This may take up to 5 minutes.

The screenshot shows the Windchill wex interface with the 'Extension Manager' sidebar. The 'Extension Manager' section is expanded, showing a table with columns: Name, ID, Version, Documentation, Actions, and Configuration. The table contains one entry: 'Example - Hello World' with ID 'wex-example-helloworld' and Version '2.0'. The 'Actions' column for this entry shows a red 'X' icon. The 'Configuration' column is empty. The background shows the 'Extension Manager' sidebar with various categories like Log, System, Windchill Framework, Manager, Performance, Threading, Framework, Audit, Diagnostics, Documentation, Core, License, Sync, Kernel, Store, Center, Windchill Services S, Deploy, Configuration, Cluster, System Configurati, JUnit Test, and Metrics.

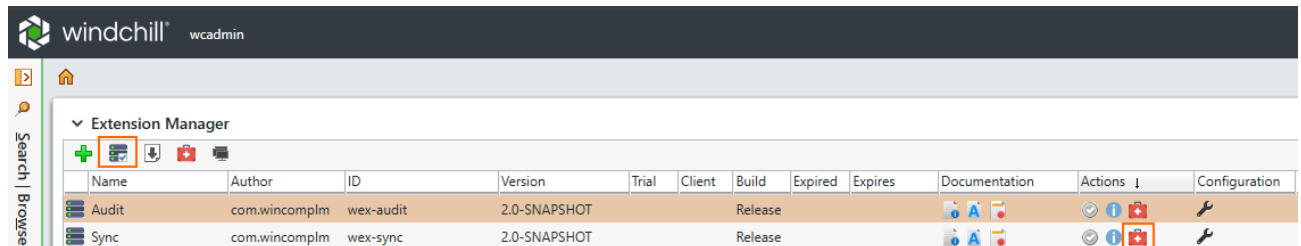
Check the sync diags shows a valid update

ID	SN7	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

The systems will after some minutes detect the disparity and install the extension automatically.
The diags will now show the update was complete

Actions



The screenshot shows the Windchill wcadmin interface. The 'Extension Manager' section is expanded, displaying a table of installed extensions. The 'Sync' extension is highlighted, and its 'Actions' column shows a red square icon, indicating a valid update.

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions	Configuration
Audit	com.wincomplm	wex-audit	2.0-SNAPSHOT			Release					
Sync	com.wincomplm	wex-sync	2.0-SNAPSHOT			Release					

Result

Sync Extensions

Database Sync

ID	Version	DB Version	Needs Sync	DB older	On DB	On Disk
com.wincomplm.wex-example-helloworld	2.0	2.0	false	false	true	true

Resource Sync

ID	Version	Resource Version	Needs Sync	On Disk
com.wincomplm.wex-example-helloworld	2.0		false	true

Close

Turn of all syncs

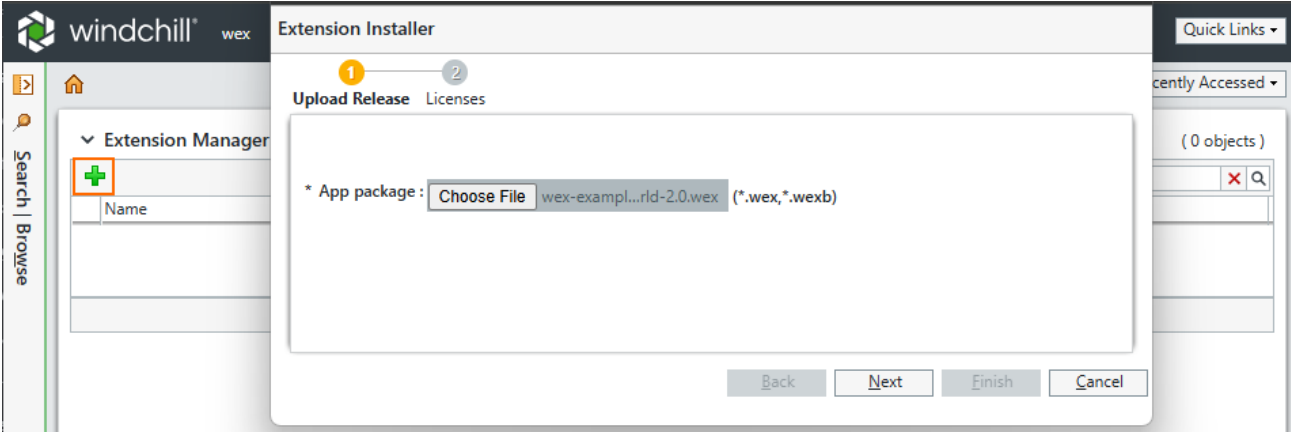
ID	SN8	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

As site admin turn off sync so that the system does not synchronize with the DB or resource folder

Actions

The screenshot displays the Windchill wadmin interface. On the left is the 'Extension Manager' sidebar with a list of extensions including Audit, Sync, Center, Cluster, Configuration, Core, Deploy, Diagnostics, Documentation, Framework, JUnit Test, License, Log, Manager, and Metrics. The 'Sync' extension is selected. The main panel shows the 'Sync' configuration page. It has two sections: 'Enable the database sync' and 'Enable the resource sync', each with radio buttons for 'Yes' and 'No'. Both are currently set to 'No'. Below these is a 'List of items to sync' section with a '+' button and a list containing 'com.wincomplm.*'. At the bottom is a 'Sync Frequency (in minutes)' field set to '1' and an 'Update' button. On the right side of the interface, there is a vertical toolbar with various icons, including a wrench icon that is highlighted.

Install the test wex-example-sync									
ID	SN9	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
<p>This 2.0 example delivers a new version (2.1) version of the Hello World extension which it will add to the resource area that is checked by the system Sync extension.</p>									
Actions									
<p>Download and deploy test extension</p> <p>Click the link below to download the test extension</p> <p>https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-sync-2.0-13.0.wex</p>									
									
Result									
Extension deployed									

Check the sync diags show valid update

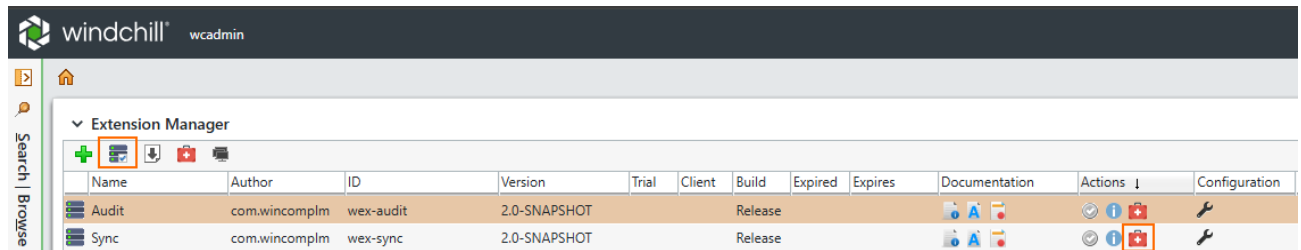
ID	SN10	Category	Functional	Security	NA	Execution	Manual	Reference	
----	------	----------	------------	----------	----	-----------	--------	-----------	--

Description

The diags will now show the sync is required.

Note that Hello World 2.0 must already be installed.

Actions



The screenshot shows the Windchill wadmin interface. The 'Extension Manager' is open, displaying a table of extensions. The 'Sync' extension is selected, and the 'Sync' button in the 'Actions' column is highlighted with a red box.

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions	Configuration
Audit	com.wincomplm	wex-audit	2.0-SNAPSHOT			Release					
Sync	com.wincomplm	wex-sync	2.0-SNAPSHOT			Release					

Result

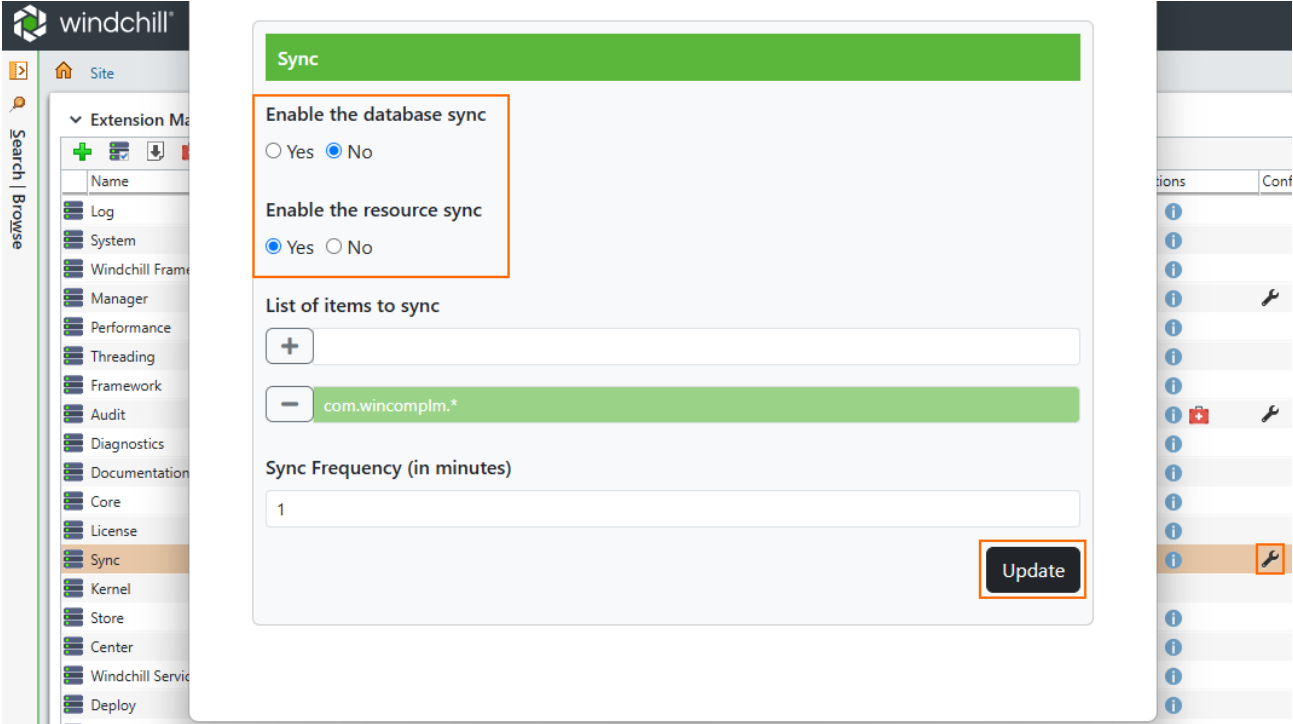
Sync Extensions

Database Sync

ID	Version	DB Version	Needs Sync	DB older	On DB	On Disk
com.wincomplm.wex-example-helloworld	2.0	2.0	false	false	true	true

Resource Sync

ID	Version	Resource Version	Needs Sync	On Disk
com.wincomplm.wex-example-helloworld	2.0	2.1	true	true

Setup sync from the resources									
ID	SN11	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Set the sync to read from the resource area and update the system if required									
Actions									
Set sync so that the resource sync is enabled but the DB is not									
									
Result									
The sync config is updated									

New resource extension deployed

ID	SN12	Category	Functional	Security	NA	Execution	Manual	Reference	
----	------	----------	------------	----------	----	-----------	--------	-----------	--


Description

The 2.1 Hello World extension will be deployed

Actions

Wait + or - 5 minutes for sync to trigger the automatic deployment of the extension

Result



windchill® wadmin

Home

Search | Browse

Extension Manager







+


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↓

✖

🖨

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions ↓
Example - Hello World	com.wincomplm	wex-example-helloworld	2.1			Release			  	  

 WINCOM

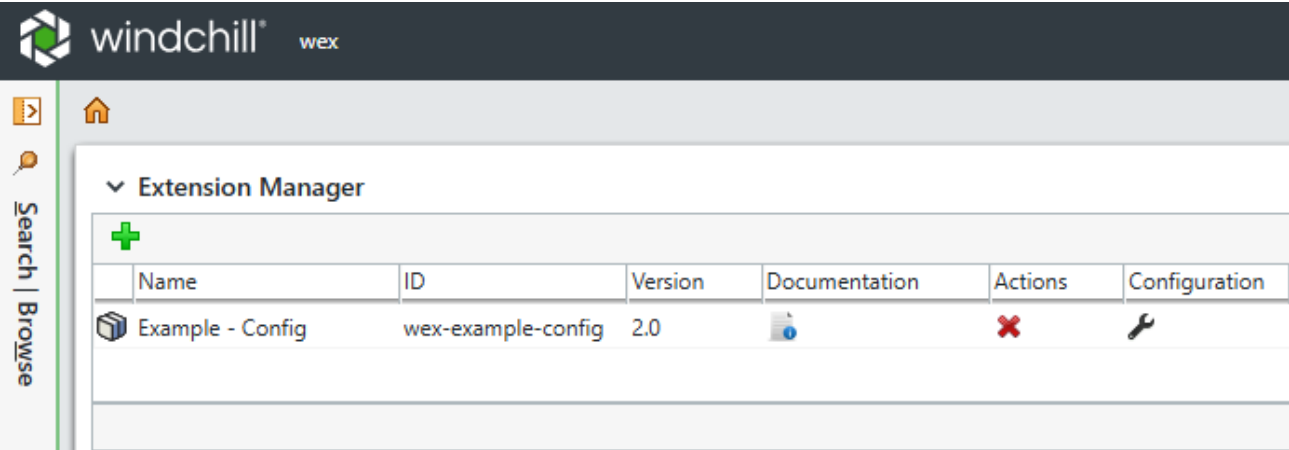
Confidential

40

Turn off Resource Sync									
ID	SN13	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Turn off the Sync that reads from resource area									
Actions									
Set the sync so that the resource sync is disabled and the DB is also disabled									
Result									
The sync config is updated									

Undeploy all test Extensions									
ID	SN14	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Ensuring that all extensions used for Sync testing are removed									
Actions									
Undeploy Hello World Example and Sync Example									
Result									
Extensions are undeployed									

Configuration									
ID	C1	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Testing the way the platform manages configurations									
<div> <div>Configuration</div> </div>									

Install the configuration example									
ID	C2	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
The configuration options include ones that are available to the extension admin									
Actions									
Download and install the configuration example extension									
https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-config-2.0-13.0.wex									
Result									
									

Check the security report of the example shows the correct information									
ID	C3	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
The security reports will show which options are made visible to the Extension Admins									
Actions									
No action, this is for information only									
Result									

Configuration

The configuration options for both Site Admin and Extension Business Configuration

Business Manager Options				
Category	Name	Type	Description	Required
Business Admin	businessString	String	An option visible to the business admins	false

Admin Options				
Category	Name	Type	Description	Required
Basic	exampleString	String	Simple string	false
Basic	exampleBoolean	boolean	Boolean	false
Collections	exampleList	List	String list	false
Collections	exampleMap	Map	String map	false
Collections	exampleStateList	List	String list with handler	false
Security	examplePassword	String	Password	false

Check site admin has full access to the configuration

ID	C4	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

All configurations items are visible

Actions

The screenshot shows the Windchill wadmin interface. At the top, there's a header with the Windchill logo and 'wadmin' in a box. Below the header, there's a sidebar with 'Search' and 'Browse' options. The main content area is titled 'Extension Manager' and contains a table with the following columns: Name, Author, ID, Version, Trial, Client, Build, Expired, Expires, Documentation, Actions, and Configur. The table lists three extensions: 'Example - Hello World', 'Example - Sync', and 'Example - Config'. The 'Example - Config' row is highlighted in orange, and a configuration icon (a wrench) is visible in the 'Configur.' column for this row.

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions	Configur.
Example - Hello World	com.wincomplm	wex-example-helloworld	2.1			Release					
Example - Sync	com.wincomplm	wex-example-sync	2.0			Release					
Example - Config	com.wincomplm	wex-example-config	2.0			Release					

Result

Basic

Boolean

☐ Yes ☒ No

Simple string

bad2

Business Admin

An option visible to the business admins

Hello7

Collections

String list

+

String list with handler

+

Accepted

Check extension admin has limited access to the configuration

ID

C5

Category

Functional

Security

NA

Execution

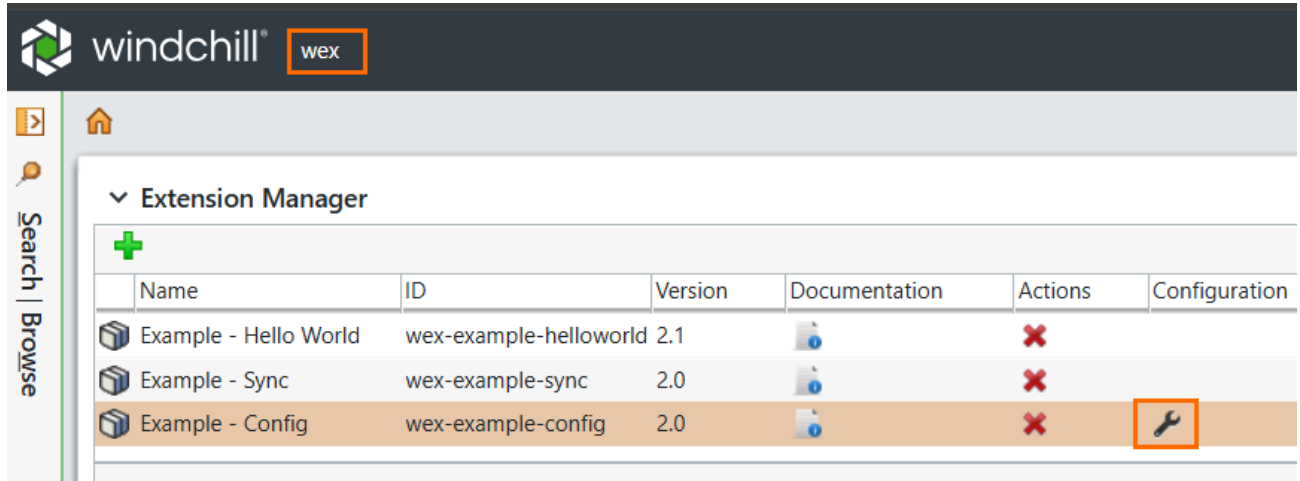
Manual

Reference

Description

Only items annotations as business are visible

Actions



The screenshot shows the Windchill WEX Extension Manager interface. The header includes the Windchill logo and a 'wex' tab. A sidebar on the left contains 'Search' and 'Browse' options. The main content area is titled 'Extension Manager' and features a table of installed extensions. The table has columns for Name, ID, Version, Documentation, Actions, and Configuration. Three extensions are listed: 'Example - Hello World' (ID: wex-example-helloworld, Version: 2.1), 'Example - Sync' (ID: wex-example-sync, Version: 2.0), and 'Example - Config' (ID: wex-example-config, Version: 2.0). The 'Example - Config' row is highlighted in orange, and its 'Configuration' column contains a wrench icon, which is also highlighted with an orange box. The 'Actions' column for all three extensions shows a red 'X'.

Name	ID	Version	Documentation	Actions	Configuration
Example - Hello World	wex-example-helloworld	2.1		✗	
Example - Sync	wex-example-sync	2.0		✗	
Example - Config	wex-example-config	2.0		✗	

Result

Business Admin

An option visible to the business admins

Hello World

Update

Check configuration can be changed									
ID	C6	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Ensure configuration is updated for an Extension									
Actions									
Show System Extensions, go to Audit and change the configurationAfter updating check Method Server for any errors									
Result									
Configuration for Audit should be changed and saved									

ID	MN1	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Testing the extension menu options

Menus

Check menu is added on deploy

ID	MN2	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

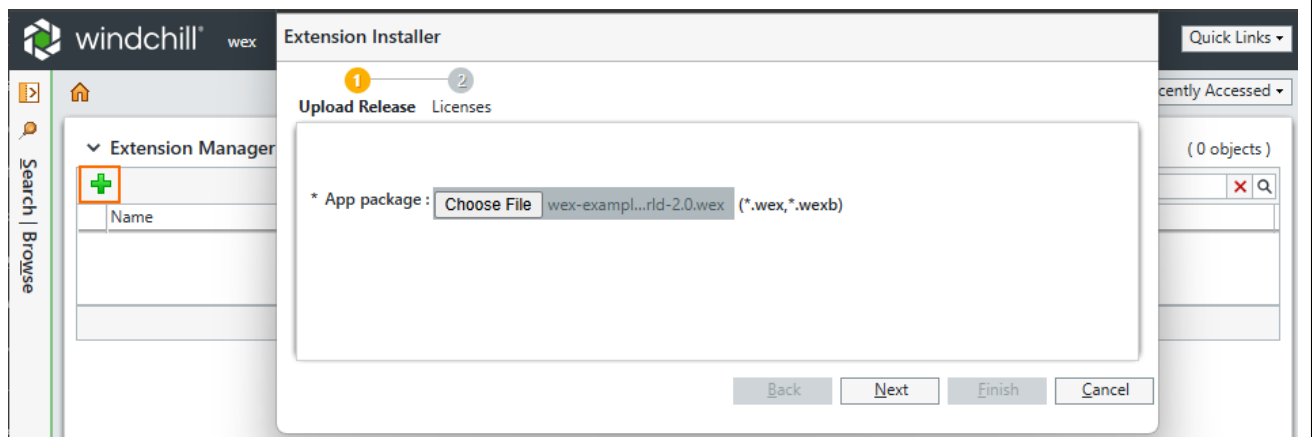
This extension will add a menu in the Quick Links

Actions

Download and deploy test extension

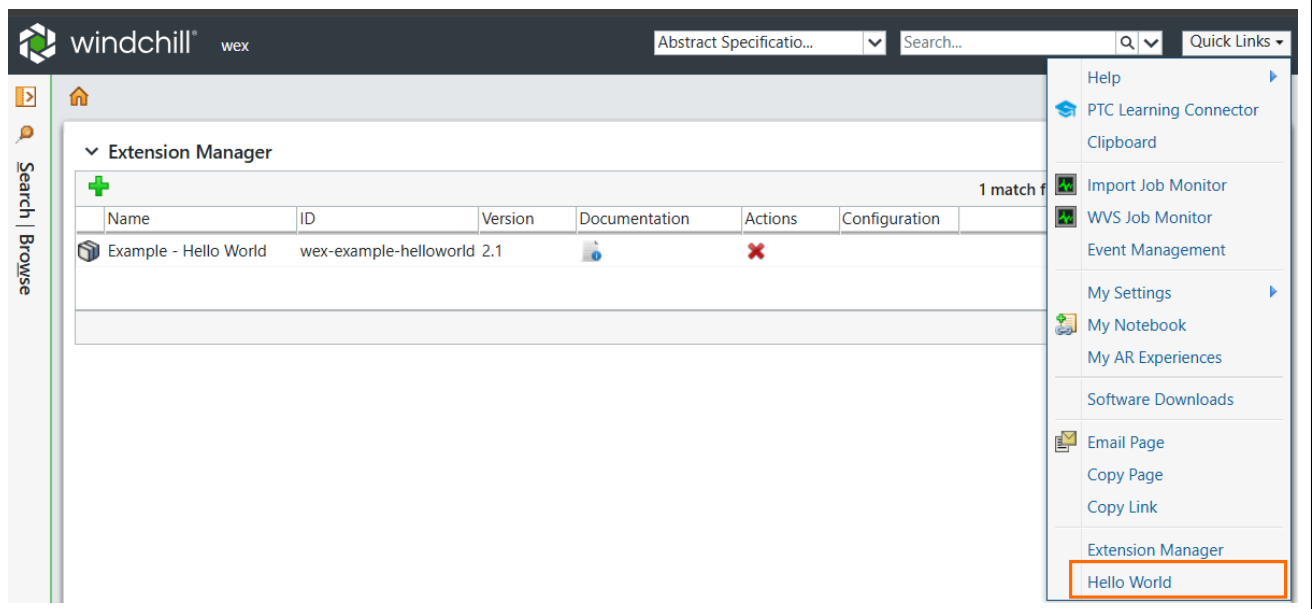
Click the link below to download the test extension and deploy

<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-helloworld-2.0-13.0.wex>



Result

Check the menus are visible
Will require a browser refresh



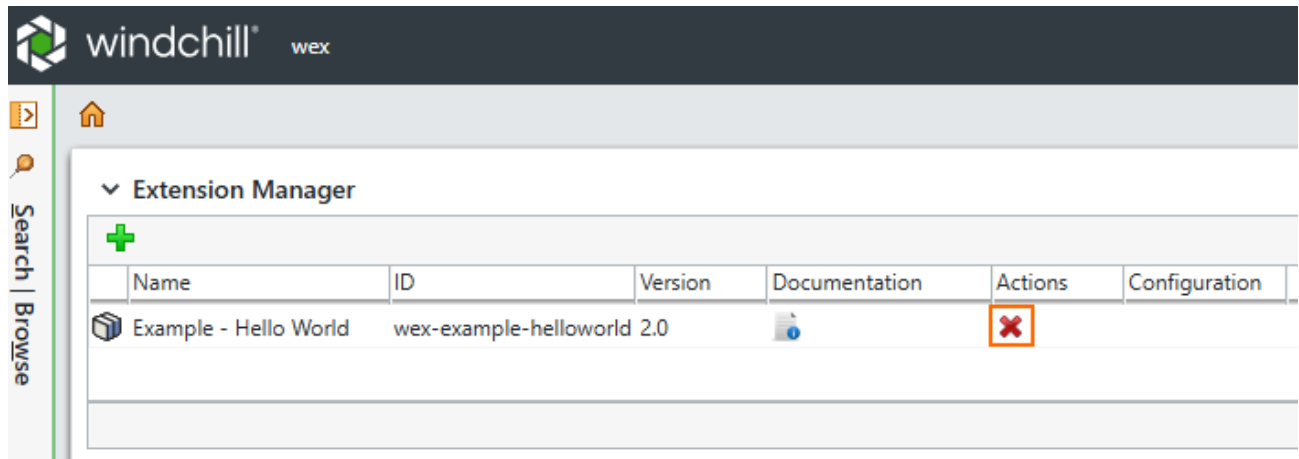
Check menu is removed on undeploy

ID	MN3	Category	Functional	Security	NA	Execution	Manual	Reference	
----	-----	----------	------------	----------	----	-----------	--------	-----------	--

Description

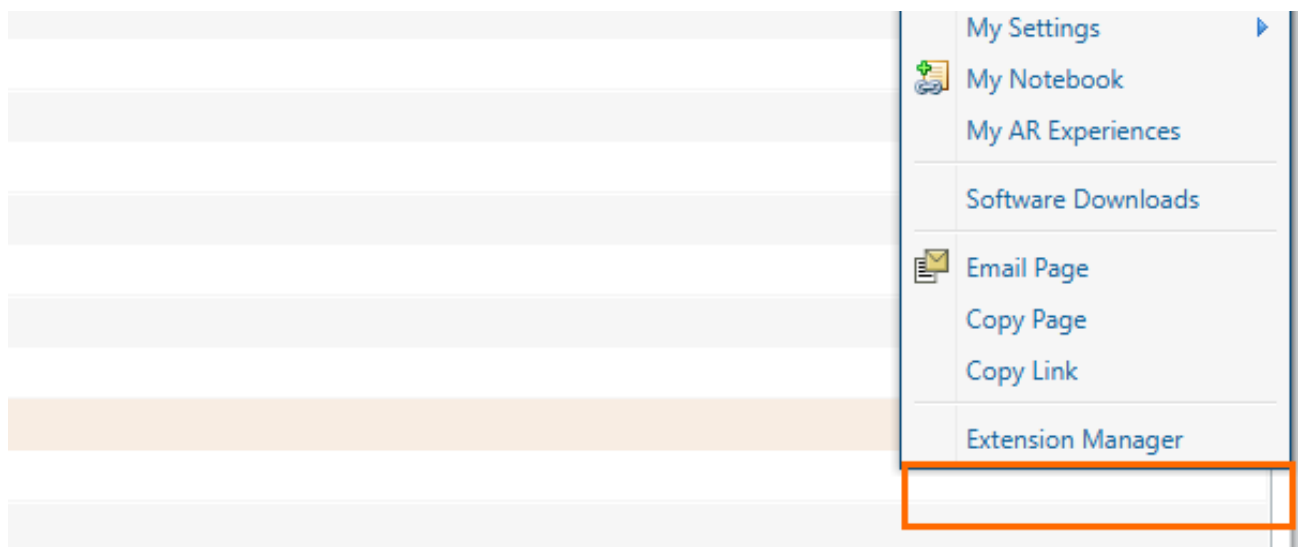
This undeploy removes the menu from the Quick Links

Actions



Result

Check the menus are not visible
Will require a browser refresh



Listeners									
ID	L1	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Testing the extension listener options									
<div> <div>Listeners</div> </div>									

Install a test listener extension

ID	L2	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

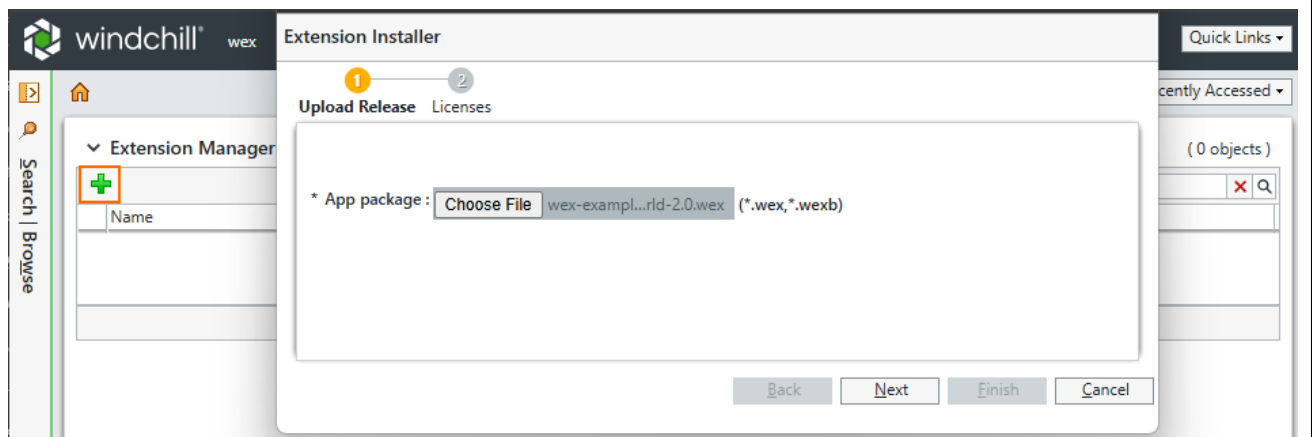
This example has two listeners that can be used for testing

Actions

Download and deploy test extension

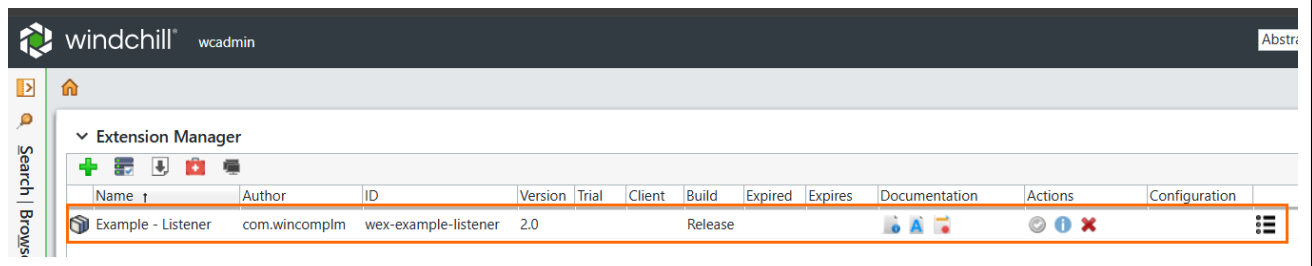
Click the link below to download the test extension

<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-listener-2.0-13.0.wex>



Result

Installation is successful



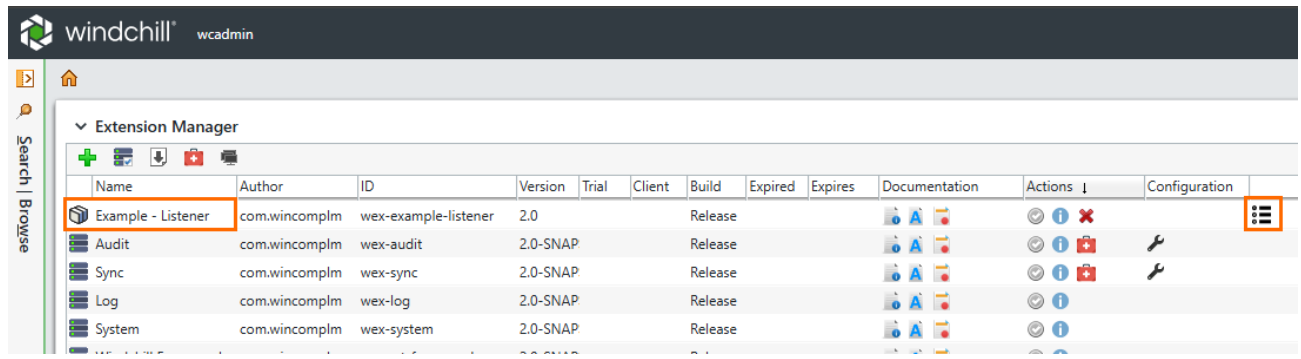
Check the extension shows the configurable interface

ID	L3	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

The system config extension will generate a UI to control the order the listener execution

Actions



Windchill wadmin

Search | Browse

Extension Manager

Name	Author	ID	Version	Trial	Client	Build	Expired	Expires	Documentation	Actions	Configuration
Example - Listener	com.wincomplm	wex-example-listener	2.0			Release				✓ ⓘ ✕	⚙️
Audit	com.wincomplm	wex-audit	2.0-SNAP			Release				✓ ⓘ ✕	⚙️
Sync	com.wincomplm	wex-sync	2.0-SNAP			Release				✓ ⓘ ✕	⚙️
Log	com.wincomplm	wex-log	2.0-SNAP			Release				✓ ⓘ	
System	com.wincomplm	wex-system	2.0-SNAP			Release				✓ ⓘ	

Result

Listener order

Example - Listener

Key	Supported	Order
*wt.lifecycle.LifecycleServiceEvent/SET_STATE WTPart		0
*wt.lifecycle.LifecycleServiceEvent/SET_STATE WTPart		1

OK Cancel

Fire the listener

ID	L4	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

Set the state of one part in the system to trigger the listener

Actions

Set State

Current Settings: No dependents, Latest : Design, Working

▼ Object List As a List Default

	Name	Number ↑	Life Cycle Template	State	Target State	Related Processes	Collection Rule	Last Modified
	NUT_1_4	GC0000010	Basic	In Work	Released ▼	Terminate	Initially Selected	2024-12-09 15:47 CET

(0 objects selected)

Result

Check the MS logs

```
INFO : wt.servlet.SessionMonitor.stats.summary - ContextPath=/Windchill, ActiveSessionsAverage=1.0, ActiveSessionsMax=1, ActiveSessionsStart=1, ActiveSessionsEnd=1, ElapsedSeconds=600.000924, SessionsCreated=0, SessionsDestroyed=0, SessionsActivated=0, SessionsPassivated=0
INFO : wt.servlet.ServletRequestMonitor.stats.summary - ContextPath=/Windchill, ElapsedSeconds=600.0010389, CompletedRequests=74, ErrorCount=0, RequestSecondsAverage=0.14833998738787377, RequestSecondsMax=1.785916, RequestCpuSecondsAverage=0.012035472972972973, RequestUserSecondsAverage=0.008023648648648648, ActiveRequestsAverage=0.018308416465643556, ActiveRequestsMax=6, ActiveRequestsStart=0, ActiveRequestsEnd=0
INFO : wt.system.err wadmin - 2024-12-29 20:59:56 WARN com.wincomplm.wex-example-listener.StateListener - [L1] A part has changed state GC000010 to RELEASED
INFO : wt.system.err wadmin - 2024-12-29 20:59:56 WARN com.wincomplm.wex-example-listener.StateListener2 - [L2] A part has changed state GC000010 to RELEASED
```

Alter the execution order

ID	L5	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

Make the L2 listener file after the L1

Actions

Listener order

Example - Listener

Key	Supported	Order
*wt.lifecycle.LifecycleServiceEvent/SET_STATE WTPart		1
*wt.lifecycle.LifecycleServiceEvent/SET_STATE WTPart		0

OK Cancel

Result

Listener order is updated

Fire the listener

ID	L6	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

Set the state of one part in the system to trigger the listener

Actions	

Set State

Current Settings: No dependents, Latest : Design, Working

▼ Object List As a List ▼ Default ▼

	Name	Number ↑	Life Cycle Template	State	Target State	Related Processes	Collection Rule	Last Modified
<input type="checkbox"/>	NUT_1_4	GC000010	Basic	In Work	Released ▼	Terminate	Initially Selected	2024-12-09 15:47 CET

(0 objects selected)

Result

Check the MS logs

```
MethodServer-1@26116
ge=0.0469675, RequestSecondsMax=0.3139903, RequestCpuSecondsAverage=0.004464285714285714, RequestUserSecondsAverage=0.004464285714285714, ActiveRequestsAverage=0.10980261150048709, ActiveRequestsMax=2, ActiveRequestsStart=0, ActiveRequestsEnd=0
ERROR : com.ptc.ms.ParamsController wadmin - No container found for oid : OR.wt.folder.SubFolder:108436
INFO  : wt.system.err wadmin - 2024-12-29 21:21:12 WARN com.wincomplm.wex-example-listener.StateListener2 - [L2] A part has changed state GC000010 to INWORK
INFO  : wt.system.err wadmin - 2024-12-29 21:21:12 WARN com.wincomplm.wex-example-listener.StateListener - [L1] A part has changed state GC000010 to INWORK
```

Methods									
ID	G1	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
Testing the extension methods, for example invoking a method from a workflow									
<div>Methods</div>									

Install a test method extension

ID	G2	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

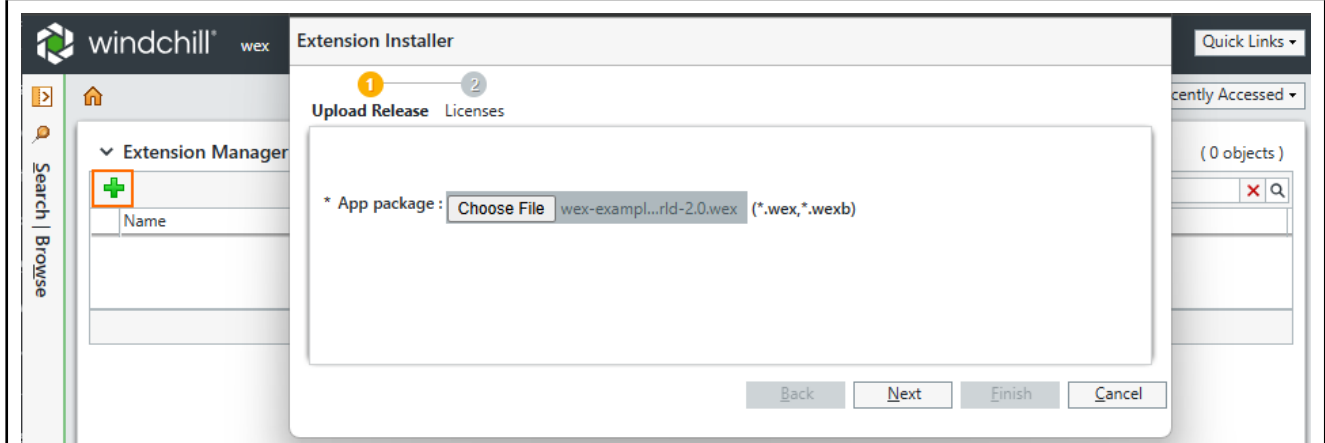
This example has various methods that can be invoked

Actions

Download and deploy test extension

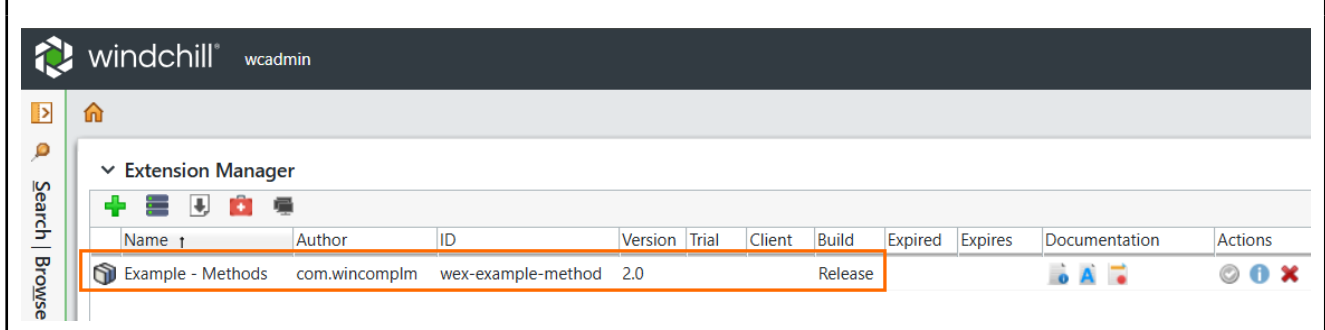
Click the link below to download the test extension

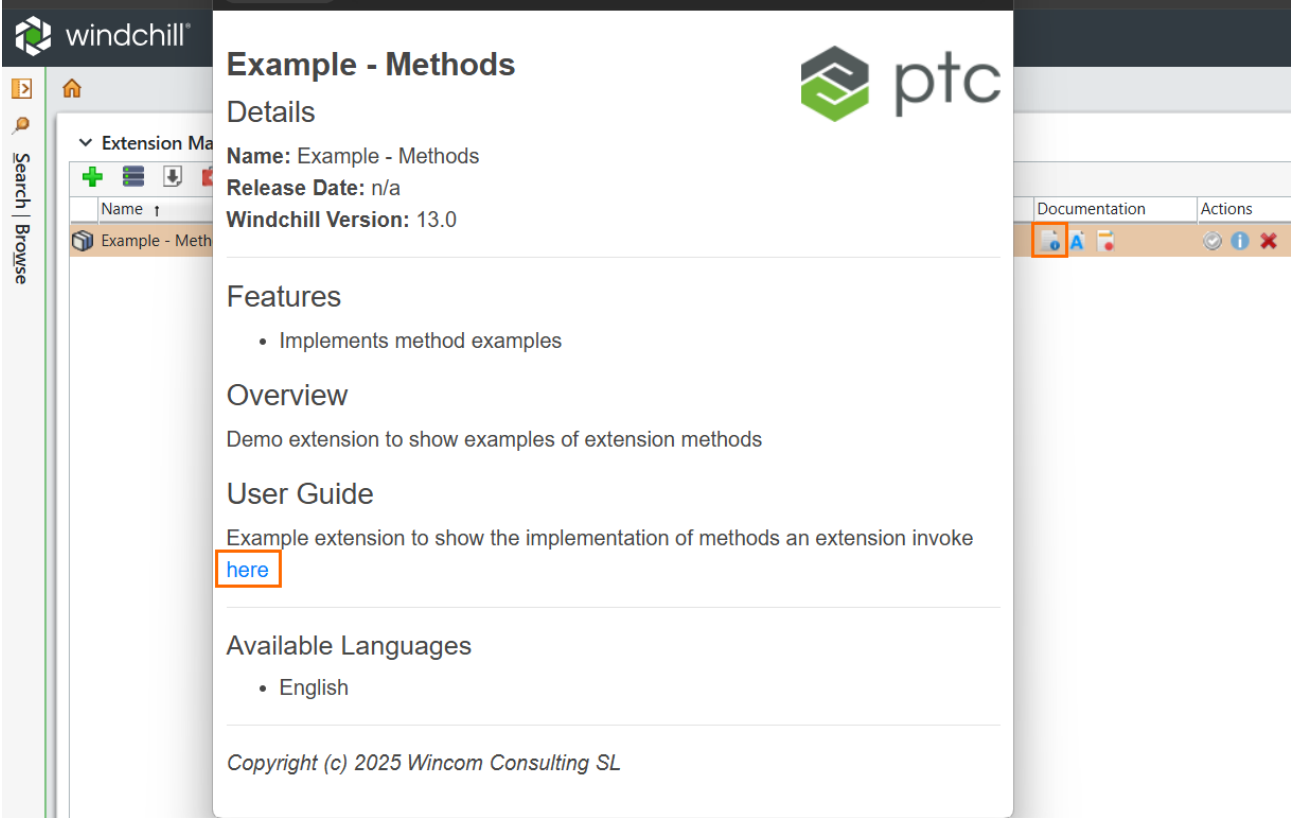
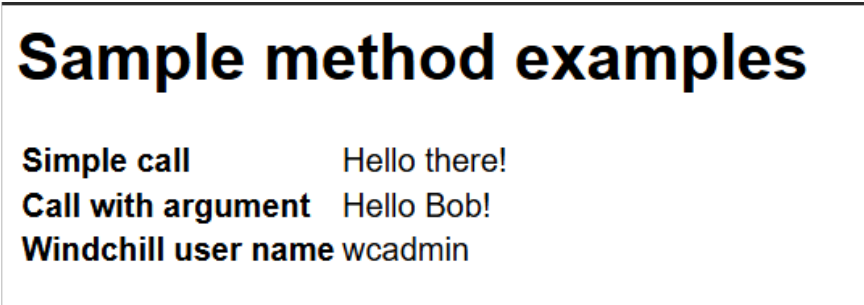
<https://github.com/wincomplm/edk/raw/refs/heads/main/access/test-wexes/13.0/wex-example-method-2.0-13.0.wex>



Result

Installation is successful



Test method execute via JSP									
ID	G3	Category	Functional	Security	NA	Execution	Manual	Reference	
Description									
<p>The extension code is isolated and so for any code running in the Windchill codebase to access it (e.g. with JSP) the WexInvoke API must be used.</p> <p>The extension page has a test JSP</p>									
Actions									
Access the documentation page and access the test page									
									
Result									
Page loads successfully									
									

Create a workflow to execute a WexInvoke

ID	G4	Category	Functional	Security	NA	Execution	Manual	Reference	
----	----	----------	------------	----------	----	-----------	--------	-----------	--

Description

Like a JSP the workflow code runs in the Windchill codebase and the wex code is hidden and must be accessed by an invoke

Actions

Create the new workflow as site admin using the Workflow Templates from the site.
The execution robot should have the following code

```
String wexresult = com.wincomplm.wex.kernel.api.invoke.WexInvoker.invoke("com.wincomplm.wex-example-method","methods.argName","Hello Wex");
System.out.println("The wex returned " + wexresult);
```

windchill® wadmin

Abstract Specificatio...

Site

Type and Attribute Management

Text Tailoring

View Administration

Visualization Configuration Administration

Workflow Template Administration

Workflow Process Administration

WVS Job Monitor

WVS Job Scheduler Administration

Manage type definitions, attribute definitions, measurement systems, and qu...

Customize the text in the user interface, such as string messages, buttons, and

Create and manage a network of available product structure views.

Manage WVS configurations including Creo View preferences, watermarks, pr

Create and manage workflow templates used for automating processes, in wf

Search for workflow processes and view activity and task level details. Restart

View the status of WVS Jobs.

Create and execute WVS jobs.

Result

File Edit Process Object Format

Location: WexInvokeTest

Properties

Enabled

Start

Expression

End

Expression

General Expression

String wexresult = com.wincomplm.wex.kernel.api.invoke.WexInvoker.invoke("com.wincomplm.wex-example-method","methods.argName","Hello Wex");

System.out.println("The wex returned " + wexresult);

Insert: Variable:

OK Cancel

WINCOM

Confidential

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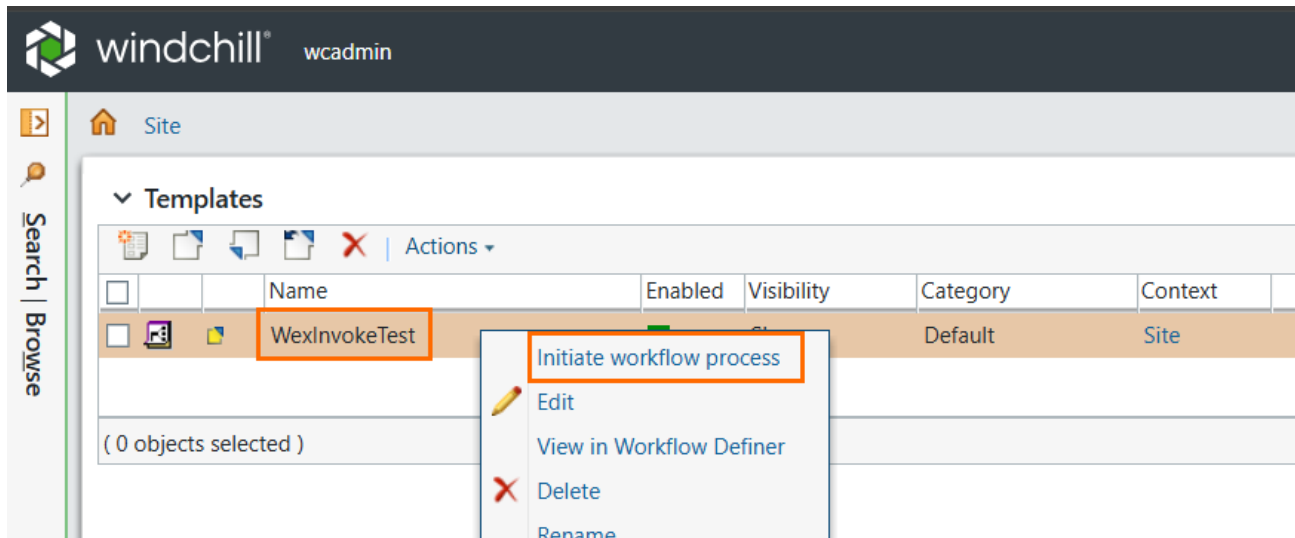
Initiate a workflow to execute a WexInvoke

ID	G5	Category	Functional	Security	NA	Execution	Manual	Reference	
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Description

The workflow with display a String in the Background Method Server log

Actions



Result

