



inubit

BPM

## **Patch Installation Guide**

Version 7.4.0.59

Virtimo AG



# Contents

<b>1 Privacy Statement.</b>	<b>6</b>
<b>2 Overview.</b>	<b>7</b>
<b>3 Default Patch Steps.</b>	<b>8</b>
<b>3.1 Creating Backup of Current inubit Installation Before Patching.</b>	<b>8</b>
<b>3.2 Restoring the Previously backed up inubit Installation After the Patch Installation was Canceled</b>	<b>8</b>
<b>3.3 Patching with the Patch Installer.</b>	<b>8</b>
3.3.1 Downloading the Executable Patch.	9
3.3.2 Executing the Patch Installer in Graphical Mode.	9
3.3.3 Executing the Patch Installer in Console Mode.	11
3.3.4 Executing the Patch Installer in Unattended Mode.	12
3.3.5 Patching BPC Using the Unattended Patch Installer.	14
3.3.6 Updating Tomcat.	15
<b>4 Additional Patch Steps.</b>	<b>16</b>
<b>4.1 Patch Step List.</b>	<b>16</b>
4.1.1 Patch level 7.4.0.4.	17
4.1.1.1 Liferay Plug-ins - Patching Liferay 7.x/DXP.	17
4.1.2 Patch level 7.4.0.5.	17
4.1.3 Patch level 7.4.0.6 to 7.4.0.11.	17
4.1.4 Patch level 7.4.0.12.	17
4.1.4.1 Process Engine - Updating Tomcat to 9.0.20.	17
4.1.5 Patch level 7.4.0.13.	18
4.1.5.1 Workbench - Adjust the config.xml file.	18
4.1.6 Patch level 7.4.0.14.	18
4.1.6.1 Liferay Portal 7.x/DXP: Redeploying Liferay Plug-ins.	18
4.1.7 Patch level 7.4.0.15 to 7.4.0.17.	19
4.1.8 Patch level 7.4.0.18.	19
4.1.8.1 Installer - Updating ibis.xml and logsDBConfig.xml.	19
4.1.8.2 Installer - Updating .bat or .sh Scripts Setting JAVA_HOME.	19
4.1.9 Patch level 7.4.0.19.	21
4.1.9.1 Patching Liferay Portal 7.x/DXP.	21
4.1.10 Patch level 7.4.0.20 to 7.4.0.21.	21
4.1.11 Patch level 7.4.0.22.	21
4.1.11.1 EDI Adapter - Adapt the EDI-XML to Consider Name and def Attributes in rule_hwed.xsd.	21
4.1.11.2 Patching Liferay Portal 7.x/DXP.	21
4.1.12 Patch level 7.4.0.23.	22
4.1.12.1 Installer - Updating logsDBConfig.xml.	22
4.1.13 Patch level 7.4.0.24 to 7.4.0.26.	22
4.1.14 Patch level 7.4.0.27.	22
4.1.14.1 Updating Plug-ins and User Profiles for EDI Signature Utility.	22
4.1.14.2 Installer under Linux - Deactivate Memory check.	24
4.1.14.3 Process Engine - Updating BouncyCastle library.	24
4.1.15 Patch level 7.4.0.28.	24
4.1.15.1 inubit Liferay Plug-in Deployment Script - Updating BouncyCastle library.	24
4.1.15.2 Liferay Portal 7.x/DXP - Replacing the Company Logo.	25
4.1.15.3 Process Engine, Cache - Update EDIFACT-ORDERS-D-96A.xml File.	25
4.1.16 Patch level 7.4.0.29.	26

4.1.16.1 Process Engine - Updating Tomcat to 9.0.31. ....	26
4.1.17 Patch level 7.4.0.30. ....	26
4.1.17.1 Repository - Updating the EDIFACT Folder. ....	26
4.1.18 Patch level 7.4.0.31. ....	26
4.1.19 Patch level 7.4.0.32. ....	27
4.1.19.1 All Components – Update JDK/Java to Version 11.0.7. ....	27
4.1.19.2 Process Engine - Updating the BouncyCastle Library to Version 1.65. ....	27
4.1.19.3 inubit Liferay Plug-in Deployment Script - Updating the BouncyCastle Library to Version 1.65. ....	27
4.1.19.4 Windows inubit Start Scripts - Updating Title, Service Name, and Service Description. ....	27
4.1.19.5 Patching Liferay Portal 7.x/DXP. ....	28
4.1.20 Patch level 7.4.0.33. ....	28
4.1.21 Patch level 7.4.0.34. ....	28
4.1.21.1 Process Engine – Updating Tomcat to 9.0.35. ....	28
4.1.21.2 Key Manager – Displaying new Columns Containing Certificate Details . ....	29
4.1.21.3 Liferay 7.0 – Unchecking the Expose Global Option to use the Updated Fusion Charts Library. ....	30
4.1.21.4 Certain Scripts can be Used with Relative Paths – Renaming New Scripts and Adjusting them if necessary. ....	30
4.1.21.5 Scripts to Install/Uninstall the Process Engine as a Service under Windows – Adjusting the Scripts. . .	30
4.1.21.6 inubit Repository – Updating AS4 Mapping Templates and CPA Files. ....	31
4.1.22 Patch level 7.4.0.35 to 7.4.0.36. ....	31
4.1.23 Patch level 7.4.0.37. ....	31
4.1.23.1 Installer under Linux – Updating java_home_path_setter.sh. ....	31
4.1.24 Patch level 7.4.0.38. ....	32
4.1.24.1 Liferay 7.x/DXP – Patching Liferay Portal 7.x/DXP. ....	32
4.1.25 Patch level 7.4.0.39. ....	32
4.1.25.1 Process Engine – Updating Tomcat to 9.0.37. ....	32
4.1.26 Patch level 7.4.0.40. ....	34
4.1.26.1 All Components – Update JDK/Java to Version 11.0.8. ....	34
4.1.26.2 Process Engine as a Service under Windows – Using Log File Rotation. ....	34
4.1.26.3 Remote Connector as a Service under Windows – Using Log File Rotation. ....	35
4.1.27 Patch level 7.4.0.41. ....	36
4.1.27.1 Repository – Update the iSConfiguration Template File . ....	36
4.1.27.2 BPC Portal – Preparatory Work for the purpose of Configuring Documentation Modules. ....	37
4.1.28 Patch level 7.4.0.42. ....	37
4.1.29 Patch level 7.4.0.43. ....	37
4.1.29.1 Liferay Portal – Updating the jQuery Library. ....	37
4.1.29.2 Process Engine – Optional: Removing unnecessary Tomcat directories. ....	37
4.1.29.3 Process Engine – Updating the SAP JCo and IDoC libraries to version 3.1. ....	38
4.1.29.4 inubit Repository – Updating AS4 Mapping Templates. ....	38
4.1.29.5 inubit Repository - Updating the Widget Directory. ....	39
4.1.29.6 inubit Repository - Updating the EDI Specification. ....	39
4.1.30 Patch level 7.4.0.44. ....	39
4.1.30.1 inubit Repository – Updating AS4 Mapping Templates and CPA Files. ....	39
4.1.31 Patch level 7.4.0.45 to 7.4.0.46. ....	40
4.1.32 Patch level 7.4.0.47. ....	40
4.1.32.1 Process Engine - Updating Tomcat to 9.0.43. ....	40
4.1.32.2 Repository – Updating the IS Configuration Template File. ....	40
4.1.32.3 inubit Repository - Updating TextExample.xml File for MIME Adapter. ....	40
4.1.32.4 Repository – Updating the PDF Toolbox directory. ....	41
4.1.32.5 All Components - Updating Scripts Due to the BouncyCastle Library Update. ....	41
4.1.32.6 Process Engine as a Service under Windows - Re-installing the Service. ....	41
4.1.33 Patch level 7.4.0.48. ....	42
4.1.34 Patch level 7.4.0.49. ....	42
4.1.34.1 Linux - Adjust User To Run inubit Process Engine as Service Using systemd. ....	42
4.1.34.2 Liferay Portal - Patching Liferay Portal 7.3/DXP. ....	42

4.1.34.3 inubit Repository - Updating the Widget Directory. . . . .	43
4.1.35 Patch level 7.4.0.50. . . . .	44
4.1.35.1 Liferay Portal - Patching Liferay Portal 7.3/DXP. . . . .	44
4.1.36 Patch level 7.4.0.51. . . . .	44
4.1.37 Patch level 7.4.0.52. . . . .	44
4.1.37.1 BPC Portal - Updating BPC Modules. . . . .	44
4.1.37.2 Liferay Portal - Redeploying Tasklists. . . . .	45
4.1.38 Patch level 7.4.0.53. . . . .	45
4.1.38.1 AS4 Gateway Table Partitioning. . . . .	45
4.1.38.2 Remote Connector - Updating Service-related script files. . . . .	46
4.1.38.3 Deployment - Migrating the Process Id Range Information to Backups Before Patch Level 7.4.0.53. . . . .	46
4.1.38.4 Workbench - Replacing Start Script. . . . .	46
4.1.38.5 BPC Portal - Updating BPC Modules. . . . .	47
4.1.38.6 Liferay Portal - Redeploying Tasklists. . . . .	47
4.1.38.7 inubit Repository - Updating the Widget.xml file. . . . .	48
4.1.39 Patch level 7.4.0.54. . . . .	48
4.1.39.1 BPC Portal - Updating BPC Modules. . . . .	48
4.1.40 Patch level 7.4.0.55. . . . .	49
4.1.40.1 BPC Portal - Updating BPC Modules. . . . .	49
4.1.40.2 inubit Repository - Updating the Widgets Directory. . . . .	49
4.1.41 Patch level 7.4.0.56. . . . .	50
4.1.41.1 All Components – Update Java/JDK to Version 11.0.12. . . . .	50
4.1.41.2 BPC Portal - Updating BPC Modules. . . . .	50
4.1.41.3 Liferay Portal - Redeploying Process Viewer Portlets. . . . .	50
4.1.42 Patch level 7.4.0.57. . . . .	51
4.1.42.1 Liferay Portal - Patching Liferay Portal 7.x/DXP. . . . .	51
4.1.42.2 Liferay Portal - Patching or Redeploying Tasklist. . . . .	51
4.1.42.3 BPC Portal - Updating BPC Modules. . . . .	51
4.1.42.4 inubit Repository - Updating the PDF Toolbox Repository Directory. . . . .	52
4.1.43 Patch level 7.4.0.58. . . . .	52
4.1.43.1 inubit Repository - Updating the ExtFormPanel Directory. . . . .	52
4.1.43.2 BPC Portal - Updating BPC Modules. . . . .	53
4.1.44 Patch level 7.4.0.59. . . . .	53
4.1.44.1 inubit Repository - Updating the ExtFormPanel Directory. . . . .	53
4.1.44.2 Repository - Updating EDIFACT Directory. . . . .	53
4.1.44.3 BPC Portal - Updating BPC Modules. . . . .	54
4.1.44.4 Liferay Portal - Patching or Redeploying Tasklist. . . . .	54
4.1.44.5 inubit Repository - Updating the IS Configuration Directory. . . . .	55
4.1.44.6 Process Engine - Updating Tomcat to 9.0.54. . . . .	55
<b>4.2 Updating JDK to a newly supported Version. . . . .</b>	<b>55</b>
<b>4.3 Patching Liferay 7.x/DXP. . . . .</b>	<b>56</b>
<b>5 Patching inubit BPC. . . . .</b>	<b>57</b>
<b>5.1 Patching inubit BPC modules. . . . .</b>	<b>57</b>
<b>5.2 Updating the BPC Workflows. . . . .</b>	<b>58</b>
<b>Index. . . . .</b>	<b>60</b>

## 1 Privacy Statement

The protection of personal data and compliance with legal data protection requirements are of utmost importance at Virtimo AG.

In inubit development, we take the requirements of the General Data Protection Regulation (GDPR) serious. We consider these in our product by providing technical possibilities for implementing and operating solutions in compliance with data protection regulations.

It is the responsibility of the operator of the software (responsible body) to ensure compliance with data protection regulations.

Please refer to the detailed documentation for concrete technical possibilities provided by inubit and how these features (e.g. encryption or deletion of data) can be used in that context.

In special cases, we are also happy to provide direct support. Such requests can be directed to Customer Support ([support@virtimo.de](mailto:support@virtimo.de)).

## 2 Overview

This document describes the patch installation process for both inubit BPM and Business Process Center. A patch installation is equivalent to an update of a given software version due to bug fixes or minor feature extensions.

### Patching inubit BPM

The patch installation process described in the following consists of two stages:


- [Default Patch Steps](#)

These default patch steps are mandatory and must always be performed for any patch activity, either automatically or manually.

- [Additional Patch Steps](#)

Subsequent to the [Default Patch Steps](#), these patch steps must manually be performed in addition, depending on your current and required target software release.

This Patch Installation Guide issue contains all patch steps up to and including patch 7.4.0.59.

 When having installed a fresh inubit BPM as of version 7.4.0.36, `<inubit-installdir>/` includes the `inubit` sub-directory, for example: `d:\inubit74\inubit`

### Patching Business Process Center

The patch installation process is part of the inubit patch installer.

Refer to:

- [Patching inubit BPC modules](#)
- [Updating the BPC Workflows.](#)

## 3 Default Patch Steps

This section details the following topics:

<a href="#">Creating Backup of Current inubit Installation Before Patching</a> . . . . .	8
<a href="#">Restoring the Previously backed up inubit Installation After the Patch Installation was Canceled</a> . . . . .	8
<a href="#">Patching with the Patch Installer</a> . . . . .	8

**!** In addition to the Process Engine, do also patch the Workbench installation(s).

After patching, you must redeploy the portlets in case of an existing portal.

You can perform the default patch steps either automatically with the patch installer or manually.

**!** Please check whether or not there are additional patch steps that are to be performed before starting the patch installation, refer to [Patch Step List](#).

If additional patch steps concerning the Infinispan cache have to be performed, follow the description in the [Additional Patch Steps](#) chapter.

### Proceed as follows

1. Set the maintenance mode to true for a node that is not patched.
2. Shut down this node.
3. Backup the inubit installation you want to update, refer to [Creating Backup of Current inubit Installation Before Patching](#).
4. Patch the shutdown node.
5. Start the node after being patched.
6. After being started, set the maintenance mode to false for the node that has just been patched.
7. Repeat all the steps above for the remaining nodes that are not yet patched.

### 3.1 Creating Backup of Current inubit Installation Before Patching

#### Proceed as follows

1. Before patching, create a manual backup of the inubit installation you want to patch by copying all folders—except the `_uninstall` folder—to a separate location.
2. Install the desired patch to the folder where the inubit installation you have backed up in step 1 is located and which you want to update.

### 3.2 Restoring the Previously backed up inubit Installation After the Patch Installation was Canceled

#### Proceed as follows

1. After the patch installation was canceled, delete all folders—except the `_uninstall` folder—from the inubit installation folder for which you have made a back-up before, refer to [Creating Backup of Current inubit Installation Before Patching](#).
2. Copy all folders from the backup folder to the inubit installation folder.

### 3.3 Patching with the Patch Installer

This section details the following topics:



Downloading the Executable Patch. . . . .	9
Executing the Patch Installer in Graphical Mode. . . . .	9
Executing the Patch Installer in Console Mode. . . . .	11
Executing the Patch Installer in Unattended Mode. . . . .	12
Patching BPC Using the Unattended Patch Installer. . . . .	14
Updating Tomcat. . . . .	15

You can use the patch installer either in graphical mode, console mode or unattended. The latter is reasonable for automated patching multiple systems.

### Java version check

The `java_home_path_setter.cmd` script contains the following line with the required Java version number:

```
set JAVA_MAJOR_VERSION_REQUIRED=<required JAVA version>
```

If the Java version set in the `JAVA_HOME` environment variable differs from the required Java version, a message is displayed, and the startup process is stopped when trying to start the inubit Process Engine or the Remote Connector. As long as the wrong version is used, neither the inubit Process Engine nor the Remote Connector can be started.

When not using AdoptOpenJDK installed with inubit BPM, you have to update the Java/JDK installation manually if the used Java version differs from the required Java version, refer to [Updating JDK to a newly supported Version](#).

### Adding drivers, libraries, and certificates after automated AdoptOpenJDK update

Additional drivers and libraries must be copied manually to the appropriate directories below the `_jvm` directory. This applies, for example, for the SAP library (`sapjco3.dll` or `libsapjco3.so`).

Certificates that are additionally installed in the `_jvm` directory must be reinstalled manually in the appropriate directory.

#### 3.3.1 Downloading the Executable Patch

##### Proceed as follows

1. Download the patch installer for inubit BPM 7.4 suitable for your operating system and the corresponding MD5 file from the [inubit BPM User Portal](#).
  - Windows systems  
Patch Windows x64 7.4.0.59 (file `patchWinX64-7.4.0.59.exe`)
  - Linux systems  
Patch Linux x64 7.4.0.59 (file `patchLinuxX64-7.4.0.59.bin`)
2. Make sure the patch installer has been downloaded correctly using the MD5 file.

#### 3.3.2 Executing the Patch Installer in Graphical Mode

##### Prerequisites

You have loaded the executable patch (refer to [Downloading the Executable Patch](#)).

##### Proceed as follows

1. Identify the user running the Process Engine.
2. Activate the maintenance mode.
3. Shut down all Remote Connectors.
4. Shut down the Workbench.
5. Shut down the Process Engine.
6. Start the patch installer as the user running the Process Engine.  
Use the patch installer corresponding to your operating system without any option.  
Examples:

- Windows

```
.\patchWinX64-7.4.0.59.exe
```

- Linux

```
./patchLinuxX64-7.4.0.59.bin
```

A GUI opens with the patch installer start screen.



If the patch installer is not able to start the GUI due to a missing graphical environment, e.g., on a Linux server, it automatically starts in console mode. In this case, proceed as described in [Executing the Patch Installer in Console Mode](#).

7. In the selection list at the bottom of the patch installer start screen, select your preferred installation language and click **OK**.

8. In the **Choose Install Set** dialog, choose **inubit Process Engine & Workbench**.



To patch **Business Process Center**, you can choose **Business Process Center** in the **Choose Install Set** dialog.  
For details how to patch the **Business Process Center**, refer to [Patching inubit BPC](#).

9. As of inubit BPM 7.4.0.43, AdoptOpenJDK 11.0.8 is installed in the `_jvm` directory on the same level as `<inubit-installdir>`.

During the patch installation, regarding the JDK configuration, the following happens:

- If a `_jvm` directory already exists, the following steps are performed:
  - An existing `_jvm_backup` directory is removed.
  - The existing `_jvm` directory is renamed to `_jvm_backup`.
  - A new `_jvm` directory is created where the latest AdoptOpenJDK version will be installed.
- If no `_jvm` directory exists, a new `_jvm` directory is created where the latest AdoptOpenJDK version will be installed.
- The `java_home_path_setter.{sh|cmd}` script is not updated during patch installation. If necessary, adjust the `JAVA_HOME` environment variable in this script manually to be set to the new installed `_jvm` directory.

10. Follow the instructions.



Before installing the new BPC modules, the files in the `<inubit-installdir>/server/portal/bpc_modules` are backed up to the `<inubit-installdir>/bpc/bpc_modules/lastversion_backup/` directory.

These backup modules can be used if you want to roll back to previous BPC modules.

The current BPC patch workflows are stored as `BusinessProcessCenter-workflow-patch-<bpcversion>.diagrams.zip` file in the `<inubit-installdir>/server/portal/bpc_modules` directory.

Rollback scenarios:

– Rollback of BPC modules is not possible for inubit BPM patch 7.4.0.33 and before because BPC modules are added as of inubit BPM patch 7.4.0.36.

– If you want to rollback inubit by installing inubit BPM patch installer 7.4.0.36 or later after inubit BPM patch 7.4.0.39, the respective patch version of BPC get overridden in `<inubit_installdir>/server/portal/bpc_modules` directory. Hence, the patched 7.4.0.39 BPC modules get lost. Additionally, the `lastversion_backup` directory created during inubit BPM patch 7.4.0.39 retains.

11. Check the following log file for error messages: `<inubit-installdir>/inubit_Patch_Install_<date_time>.log`
12. If Tomcat has been updated automatically to a newer version during the patch installation, the directory containing the former Tomcat named to: `<inubit-installdir>/server/Tomcat_backup`.  
The new Tomcat version is installed in the directory: `<inubit-installdir>/server/Tomcat`  
Before starting the Process Engine, you only have to adjust the files you had adjusted in your former Tomcat installation.  
For further information regarding the automated Tomcat update and the remaining steps, refer to [Updating Tomcat](#).
13. Start the Process Engine.
14. Deactivate the maintenance mode.

### 3.3.3 Executing the Patch Installer in Console Mode

#### Prerequisites

You have loaded the executable patch (refer to [Downloading the Executable Patch](#)).

#### Proceed as follows

1. Identify the user running the Process Engine.
2. Activate the maintenance mode.
3. Shut down all Remote Connectors.
4. Shut down the Workbench.
5. Shut down the Process Engine.
6. Start the patch installer as the user running the Process Engine.

Use the patch installer corresponding to your operating system with the `-i console` option.

Examples:

- Windows

```
.\patchWinX64-7.4.0.59.exe -i console
```

- Linux

```
./patchLinuxX64-7.4.0.59.bin -i console
```

7. Follow the instructions.
8. In the **Choose Install Set** dialog, choose **inubit Process Engine & Workbench**.



To patch **Business Process Center**, you can choose **Business Process Center** in the **Choose Install Set** dialog.

For details how to patch the **Business Process Center**, refer to [Patching inubit BPC](#).



Before installing the new BPC modules, the files in the `<inubit-installdir>/server/portal/bpc_modules` are backed up to the `<inubit-installdir>/bpc/bpc_modules/lastversion_backup/` directory.

These backup modules can be used if you want to roll back to previous BPC modules.

The current BPC patch workflows are stored as `BusinessProcessCenter-workflow-patch-<bpcversion>.diagrams.zip` file in the `<inubit-installdir>/server/portal/bpc_modules` directory.

Rollback scenarios:

– Rollback of BPC modules is not possible for inubit BPM patch 7.4.0.33 and before because BPC modules are added as of inubit BPM patch 7.4.0.36.

– If you want to rollback inubit by installing inubit BPM patch installer 7.4.0.36 or later after inubit BPM patch 7.4.0.39, the respective patch version of BPC get overridden in `<inubit_installdir>/server/portal/bpc_modules` directory. Hence, the patched 7.4.0.39 BPC modules get lost. Additionally, the `lastversion_backup` directory created during inubit BPM patch 7.4.0.39 retains.

- As of inubit BPM 7.4.0.43, AdoptOpenJDK 11.0.8 is installed in the `_jvm` directory on the same level as `<inubit-installdir>`.

During the patch installation, regarding the JDK configuration, the following happens:

- If a `_jvm` directory already exists, the following steps are performed:
  - An existing `_jvm_backup` directory is removed.
  - The existing `_jvm` directory is renamed to `_jvm_backup`.
  - A new `_jvm` directory is created where the latest AdoptOpenJDK version will be installed.
- If no `_jvm` directory exists, a new `_jvm` directory is created where the latest AdoptOpenJDK version will be installed.
- The `java_home_path_setter.{sh|cmd}` script is not updated during patch installation. If necessary, adjust the `JAVA_HOME` environment variable in this script manually to be set to the new installed `_jvm` directory.

- Check the following log file for error messages: `<inubit-installdir>/inubit_Patch_Install_<date_time>.log`
- If Tomcat has been updated automatically to a newer version during the patch installation, the directory containing the former Tomcat named to: `<inubit-installdir>/server/Tomcat_backup`.  
The new Tomcat version is installed in the directory: `<inubit-installdir>/server/Tomcat`  
Before starting the Process Engine, you only have to adjust the files you had adjusted in your former Tomcat installation.  
For further information regarding the automated Tomcat update and the remaining steps, refer to [Updating Tomcat](#).
- Start the Process Engine.
- Deactivate the maintenance mode.

### 3.3.4 Executing the Patch Installer in Unattended Mode

The unattended patch installer is reasonable for automated patching multiple servers.

#### Prerequisites

- You have loaded the executable patch (refer to [Downloading the Executable Patch](#)).

- You have created an answer file by starting the patch installer using the option `-r <path_to_answer_file>` and choosing the **inubit Process Engine & Workbench** option in the **Choose Install Set** dialog.

Example:

```
.\patchWinX64-7.4.0.59.exe -r c:\inubit\install\answer_74.txt
```

The answer file looks like this:

```
# Wed Sep 02 13:41:08 CEST 2020
# Replay feature output
# -----
# This file was built by the Replay feature of InstallAnywhere.
# It contains variables that were set by Panels, Consoles or Custom Code.
#Choose Install Set
#-----
CHOSEN_FEATURE_LIST=inubit
CHOSEN_INSTALL_FEATURE_LIST=inubit
CHOSEN_INSTALL_SET=inubit
#Choose inubit Install Folder
#-----
USER_INSTALL_DIR=D:\\inubit74test\\inubit
#Setting JDK path
#-----
USER_INPUT_JAVA_HOME_PATH=D:\\jdk11
#Install
#-----
-fileOverwrite_D:\\inubit74test\\inubit\\client\\lib\\ibis.jar=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\lib\\ibis_tools.jar=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\lib\\bcprov-jdk15on-1.65.jar=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\bin\\Splash.png=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\bin\\workbench_128.ico=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\bin\\StartClient.ico=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\bin\\check_is_status_patch.bat=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\bin\\start_local_patch.bat=Yes
-fileOverwrite_D:\\inubit74test\\inubit\\client\\bin\\startcli_patch.bat=Yes
...
```

For patching, the property `USER_INSTALL_DIR` (installation directory) is relevant.



To patch the Business Process Center unattended, refer to [Patching BPC Using the Unattended Patch Installer](#).

### Proceed as follows

1. Identify the user running the Process Engine.
2. Activate the maintenance mode.
3. Shut down all Remote Connectors.
4. Shut down the Workbench.
5. Shut down the Process Engine.

## 6. Start the patch installer as the user running the Process Engine.

Use the patch installer corresponding to your operating system with the following options:

```
-i silent -f <absolute_path>/<answer>.txt
```

Example:

```
.\patchWinX64-7.4.0.59.exe -i silent -f c:\inubit\install\answer_file.txt
```

## 7. As of inubit BPM 7.4.0.43, AdoptOpenJDK 11.0.8 is installed in the `_jvm` directory on the same level as `<inubit-installdir>`.

During the patch installation, regarding the JDK configuration, the following happens:

- If a `_jvm` directory already exists, the following steps are performed:
  - An existing `_jvm_backup` directory is removed.
  - The existing `_jvm` directory is renamed to `_jvm_backup`.
  - A new `_jvm` directory is created where the latest AdoptOpenJDK version will be installed.
- If no `_jvm` directory exists, a new `_jvm` directory is created where the latest AdoptOpenJDK version will be installed.
- The `java_home_path_setter.{sh|cmd}` script is not updated during patch installation. If necessary, adjust the `JAVA_HOME` environment variable in this script manually to be set to the new installed `_jvm` directory.

## 8. Check the following log file for error messages: `<inubit-installdir>/`

```
inubit_Patch_Install_<date_time>.log
```

## 9. If Tomcat has been updated automatically to a newer version during the patch installation, the directory containing the former Tomcat named to: `<inubit-installdir>/server/Tomcat_backup`.

The new Tomcat version is installed in the directory: `<inubit-installdir>/server/Tomcat`

Before starting the Process Engine, you only have to adjust the files you had adjusted in your former Tomcat installation.

For further information regarding the automated Tomcat update and the remaining steps, refer to [Updating Tomcat](#).

## 10. Start the Process Engine.

## 11. Deactivate the maintenance mode.

### 3.3.5 Patching BPC Using the Unattended Patch Installer

The unattended patch installer is reasonable for automated patching multiple servers.

#### Prerequisites

- You have loaded the executable patch (refer to [Downloading the Executable Patch](#)).
- You have created an answer file choosing the **Business Process Center** in the **Choose Install Set** dialog by executing the patch installer once using the following option:

```
-r <path_to_answer.txt>.
```

Example:

```
.\patchWinX64-7.4.0.59.exe -r c:\inubit\install\answer_74.txt
```

The answer file looks like this:

```
# Wed Sep 02 10:35:21 CEST 2020
# Replay feature output
# -----
# This file was built by the Replay feature of InstallAnywhere.
# It contains variables that were set by Panels, Consoles or Custom Code.
#Choose Install Set
#-----
CHOSEN_FEATURE_LIST=BPC
CHOSEN_INSTALL_FEATURE_LIST=BPC
CHOSEN_INSTALL_SET=BPC
#Choose BPC Install Folder
#-----
```

```
USER_INSTALL_DIR=D:\\inubit74test\\bpc
```

For patching, the property `USER_INSTALL_DIR` (installation directory) is relevant.

### Proceed as follows

1. Start the patch installer corresponding to your operating system with the `-i silent -f <absolute_path>/<answer>.txt` options.

Example:

```
.\patchWinX64-7.4.0.59.exe -i silent -f c:\inubit\install\answer_file.txt
```

2. Check the following log file for error messages: `<bpc-installdir>/inubit_Patch_Install_<date_time>.log`

### 3.3.6 Updating Tomcat

If there is a newer Tomcat version as the current one, the patch installer automatically creates a backup of the Tomcat directory and installs the new Tomcat version. The following steps are performed:

- The current Tomcat directory is renamed to: `<inubit-installdir>/server/Tomcat_backup`
- The new Tomcat version is installed in the following directory: `<inubit-installdir>/server/Tomcat`
- The configuration files `server.xml`, `web.xml`, and `tomcat-users.xml` are copied from the `Tomcat_backup` directory to the `<inubit-installdir>/server/Tomcat/conf` directory and they are renamed as `server_backup.xml`, `web_backup.xml`, and `tomcat-users_backup.xml`.
- If the Tomcat backup contains an AS4 Gateway, in the new Tomcat, the AS4 Gateway is updated to the latest version and Tomcat Manager is installed by default, too.



Once Tomcat is updated, it is automatically secured because only the both required directories `ibis` and `ROOT` are installed.

### Prerequisites

- There is a new Tomcat version.
- You have executed the patch installer without restarting the inubit Process Engine.

Refer to

- [Executing the Patch Installer in Graphical Mode](#)
- [Executing the Patch Installer in Console Mode](#)
- [Executing the Patch Installer in Unattended Mode](#)

### Proceed as follows

1. In the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`, adjust all the files being adjusted in the previous Tomcat installation (`Tomcat_backup` directory) based on those files. Three files are copied and renamed automatically from the `Tomcat_backup` directory to the new `<inubit-installdir>/server/Tomcat/conf` directory as follows.

```
tomcat-users_backup.xml
server_backup.xml
web_backup.xml
```

2. If you have modified any other files (like script files), you have to adjust them accordingly in the newly installed Tomcat directory.
3. If you run inubit in cluster mode, you have to execute step 1 and 3 for all the other nodes in your cluster.
4. Start the Process Engine(s).
5. Deactivate the maintenance mode.

## 4 Additional Patch Steps

This section details the following topics:

Patch Step List. . . . .	16
Updating JDK to a newly supported Version. . . . .	55
Patching Liferay 7.x/DXP. . . . .	56

### 4.1 Patch Step List

This section details the following topics:

Patch level 7.4.0.4. . . . .	17
Patch level 7.4.0.5. . . . .	17
Patch level 7.4.0.6 to 7.4.0.11. . . . .	17
Patch level 7.4.0.12. . . . .	17
Patch level 7.4.0.13. . . . .	18
Patch level 7.4.0.14. . . . .	18
Patch level 7.4.0.15 to 7.4.0.17. . . . .	19
Patch level 7.4.0.18. . . . .	19
Patch level 7.4.0.19. . . . .	21
Patch level 7.4.0.20 to 7.4.0.21. . . . .	21
Patch level 7.4.0.22. . . . .	21
Patch level 7.4.0.23. . . . .	22
Patch level 7.4.0.24 to 7.4.0.26. . . . .	22
Patch level 7.4.0.27. . . . .	22
Patch level 7.4.0.28. . . . .	24
Patch level 7.4.0.29. . . . .	26
Patch level 7.4.0.30. . . . .	26
Patch level 7.4.0.31. . . . .	26
Patch level 7.4.0.32. . . . .	27
Patch level 7.4.0.33. . . . .	28
Patch level 7.4.0.34. . . . .	28
Patch level 7.4.0.35 to 7.4.0.36. . . . .	31
Patch level 7.4.0.37. . . . .	31
Patch level 7.4.0.38. . . . .	32
Patch level 7.4.0.39. . . . .	32
Patch level 7.4.0.40. . . . .	34
Patch level 7.4.0.41. . . . .	36
Patch level 7.4.0.42. . . . .	37
Patch level 7.4.0.43. . . . .	37
Patch level 7.4.0.44. . . . .	39
Patch level 7.4.0.45 to 7.4.0.46. . . . .	40
Patch level 7.4.0.47. . . . .	40
Patch level 7.4.0.48. . . . .	42
Patch level 7.4.0.49. . . . .	42
Patch level 7.4.0.50. . . . .	44
Patch level 7.4.0.51. . . . .	44
Patch level 7.4.0.52. . . . .	44
Patch level 7.4.0.53. . . . .	45



Patch level 7.4.0.54. ....	48
Patch level 7.4.0.55. ....	49
Patch level 7.4.0.56. ....	50
Patch level 7.4.0.57. ....	51
Patch level 7.4.0.58. ....	52
Patch level 7.4.0.59. ....	53

In order to patch to the required version, you must perform the corresponding patch steps described in the following list, including all steps ranging between the version one patch level above your current and the target version.

### List structure

- **Patch level**

Patch level requiring a manual patch action. Patching is necessary if you patch from a minor version to the indicated or to a higher version.

- **Component**


Components involved in the patch step.

- **Action**

Action(s) that must be performed.

### Example

You want to patch to the target patch level 7.4.0.59 and your current patch level is 7.4.0.3. In this case, you must perform the patch steps from patch level 7.4.0.4 up to patch level 7.4.0.59.

 In case a patch step occurs several times, you must execute it once only (e.g., Tomcat updates).

#### 4.1.1 Patch level 7.4.0.4

##### 4.1.1.1 Liferay Plug-ins - Patching Liferay 7.x/DXP

### Action

Patching Liferay 7.x/DXP

### Proceed as follows

Refer to [Patching Liferay 7.x/DXP](#).

#### 4.1.2 Patch level 7.4.0.5

No additional patch steps are required.

#### 4.1.3 Patch level 7.4.0.6 to 7.4.0.11

No additional patch steps are required.

#### 4.1.4 Patch level 7.4.0.12

##### 4.1.4.1 Process Engine - Updating Tomcat to 9.0.20

### Action

Updating to Tomcat 9.0.20

 Process the following steps before starting the patch installer.

### Proceed as follows

1. Shut down the inubit Process Engine.
2. From the directory `<inubit-installdir>/server/Tomcat`, save all files that have been customized or that are especially adjusted to the system environment (for example, `setenv.sh`, `server.xml`, `portal-ext.properties`).
3. Backup and delete the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`.
4. Install the Process Engine 7.4.0.59 to a temporary directory.
5. Copy the Tomcat directory from that temporary installation folder `../server/Tomcat` to the `<inubit-installdir>/server` directory of your inubit installation.
6. In the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`, adjust all the files adjusted in the previous Tomcat installation based on the files saved in step 2.
7. Execute the patch installer of inubit 7.4.0.59.
8. In cluster mode: Execute steps 1 to 7 for all the other nodes in your cluster.

### 4.1.5 Patch level 7.4.0.13

#### 4.1.5.1 Workbench - Adjust the config.xml file

##### Prerequisites

This step is necessary only if you have executed the deployment at least once.

##### Action

Adjust the `config.xml` file for each user that has executed the deployment.

### Proceed as follows

1. On the system where the Workbench is installed, go to the following directory:
  - **Linux:**

```
/home/<Linux user name>/inubit/Toolset/<inubit version>/work/<IP address>_<port>/<inubit user name>/
```
  - **Windows:**

```
C:\Users\<Windows user name>\AppData\Roaming\inubit\Toolset\<inubit version>\work\<IP address>_<port>\<inubit user name>\
```
2. Open the `config.xml` file for editing.
3. Search for all lines that contain `WF.Deploy` as the last part of a property name.
4. Delete all the lines that contain `WF.Deploy`, e.g.: `Last.IS.WF.Deploy`, `Last.RS.WF.Deploy`
5. Save the changes.
6. Restart the inubit Workbench.
7. If you have installed the Workbench on multiple systems, execute the steps above on all systems where a Workbench is installed.

### 4.1.6 Patch level 7.4.0.14

#### 4.1.6.1 Liferay Portal 7.x/DXP: Redeploying Liferay Plug-ins

##### Action

Patching Liferay 7.x/DXP

### Proceed as follows

1. Open `<inubit-installdir>/server/portal/inubitPlugins/<liferay_version>/` directory.
2. Extract the `liferay-inubit-bootstrap-1.0.0.jar` archive.

3. Copy the `grid3-hrow.gif` file from the `liferay-inubit-bootstrap-1.0.0/ROOT/html/js/extjs/resources/images/default/grid/` directory to the clipboard.
4. Paste the `grid3-hrow.gif` file from the clipboard to the `<liferay_installdir>/Tomcat-dir/webapps/ROOT/html/js/extjs/resources/images/default/grid/` directory.



If the `../ROOT/html/js/extjs/resources/images/default/grid` directory does not exist, create it.

5. Shutdown and restart Liferay for the changes to take effect.
6. Continue with the steps in section [Patching Liferay 7.x/DXP](#).

#### 4.1.7 Patch level 7.4.0.15 to 7.4.0.17

No additional patch steps are required.

#### 4.1.8 Patch level 7.4.0.18

##### 4.1.8.1 Installer - Updating `ibis.xml` and `logsDBConfig.xml`

#### Action

Updating the configuration files `ibis.xml` and `logsDBConfig.xml` with entries for the new properties `noOfRetries` and `retryInterval`.



This action is compulsory.

#### Proceed as follows

1. Open the existing files `ibis.xml` and `logsDBConfig.xml` for editing.
2. Open the template files `ibis.xml.<db-type>` and `logsDBConfig.xml.<db-type>` appropriate to the database type you use.  
Example: If you use a MySQL database, open `ibis.xml.MySQL` and `logsDBConfig.xml.MySQL`.
3. Copy the relevant properties `noOfRetries` and `retryInterval` from the template file `ibis.xml.<db-type>` and `logsDBConfig.xml.<db-type>` respectively into the respective lines of the XML structure of the existing files `ibis.xml` and `logsDBConfig.xml` respectively.
4. Save the files `ibis.xml` and `logsDBConfig.xml`.
5. Close the template files `ibis.xml.<db-type>` and `logsDBConfig.xml.<db-type>`.
6. Restart the Process Engine.



In cluster mode, you can do the update node by node to avoid downtime.

##### 4.1.8.2 Installer - Updating `.bat` or `.sh` Scripts Setting `JAVA_HOME`

#### Action

Updating all `.bat` or `.sh` scripts setting the `JAVA_HOME` environment variable in order that the scripts make use of the central file `<inubit-installdir>\java_home_path_setter.cmd` or `<inubit-installdir>/java_home_path_setter.sh`.

#### Prerequisites

The file `<inubit-installdir>\java_home_path_setter.cmd` or `<inubit-installdir>/java_home_path_setter.sh` contains the correct path to the JDK used by inubit.

## Proceed as follows

### • Windows

1. Navigate to the directory `<inubit-installdir>server\Tomcat\bin` and execute the following steps with all `.bat` files in this directory:

- a. Open the `.bat` file for editing.
- b. Add the following lines before the first code line:

```
rem # set JAVA_HOME by calling central java_home path setter
set JAVA_HOME_PATH_SETTER="..\..\..\java_home_path_setter.cmd"
if EXIST "%JAVA_HOME_PATH_SETTER%" (call "%JAVA_HOME_PATH_SETTER%")
```

2. Execute the following steps with all `.bat` files being in the following directories:

```
<inubit-installdir>/client/bin
<inubit-installdir>/remoteconnector/bin
<inubit-installdir>/server/migration
<inubit-installdir>/server/restore
<inubit-installdir>/server/benchmark
```

- a. Open the `.bat` file for editing.
- b. Add the following lines before the first code line:

```
rem # set JAVA_HOME by calling central java_home path setter
set JAVA_HOME_PATH_SETTER="..\..\..\java_home_path_setter.cmd"
if EXIST "%JAVA_HOME_PATH_SETTER%" (call "%JAVA_HOME_PATH_SETTER%")
```

### • Linux

1. Navigate to the directory `<inubit-installdir>server/Tomcat/bin` and execute the following steps with all `.sh` files in this directory:

- a. Open the `.sh` file for editing.
- b. Add the following lines before the first code line:

```
# set JAVA_HOME by calling central java_home path setter
JAVA_HOME_PATH_SETTER="..\..\../java_home_path_setter.sh"
if [ -f "$JAVA_HOME_PATH_SETTER" ]
then
    "$JAVA_HOME_PATH_SETTER"
fi
```

2. Execute the following steps with all `.sh` files being in the following directories:

```
<inubit-installdir>/client/bin
<inubit-installdir>/remoteconnector/bin
<inubit-installdir>/server/migration
<inubit-installdir>/server/restore
<inubit-installdir>/server/benchmark
```

- a. Open the `.sh` file for editing.
- b. Add the following lines before the first code line:

```
# set JAVA_HOME by calling central java_home path setter
JAVA_HOME_PATH_SETTER="..\..\../java_home_path_setter.sh"
if [ -f "$JAVA_HOME_PATH_SETTER" ]
then
    "$JAVA_HOME_PATH_SETTER"
fi
```

## 4.1.9 Patch level 7.4.0.19

### 4.1.9.1 Patching Liferay Portal 7.x/DXP

#### Action

Patching Liferay 7.x/DXP

#### Proceed as follows

Refer to [Patching Liferay 7.x/DXP](#)

## 4.1.10 Patch level 7.4.0.20 to 7.4.0.21

No additional patch steps are required.


## 4.1.11 Patch level 7.4.0.22

### 4.1.11.1 EDI Adapter - Adapt the EDI-XML to Consider Name and def Attributes in rule\_hwed.xsd

#### Action

After the patch installation, upload the file `rule_hwed.xsd` into the Workbench repository.

#### Proceed as follows

1. Start the inubit Workbench and login as user **root**.
2. Click the **Repository** tab and select the view **All**.
3. Open the repository folder **Global > System > Schemas > EDI**.
4. In the file area, open the context menu and choose **Add file or directory**.  
→ A wizard is displayed.
5. Click the icon  to open the operating system's file picker.
6. Navigate to the folder `<inubit-installdir>/server/ibis_root/ibis_data/repository/deploy/Global/System/Schemas/EDI` and select the file `rule_hwed.xsd`.
7. Specify that the files is supposed to be readable anonymously.
8. Click **Next**.
9. Click **Finish** to close the dialog and save the file.

### 4.1.11.2 Patching Liferay Portal 7.x/DXP

#### Action

Patching Liferay 7.x/DXP

#### Proceed as follows

1. Remove the following files from the `./lib/ext` directory of the Java installation used by your Liferay installation.
  - `bcprov-jdk15on-1.60.jar`
  - `ibis-system-7.0.0.jar`
2. Remove the endorsed directory below the `<Liferay-installdir>/<Tomcat-dir>` directory of your Liferay installation.
3. Refer to [Patching Liferay 7.x/DXP](#)

## 4.1.12 Patch level 7.4.0.23

### 4.1.12.1 Installer - Updating logsDBConfig.xml

#### Action

Updating the configuration file `logsDBConfig.xml` with entries for the new audit logs limit properties `maximumLimitDaysAuditLog`, `minimumLimitAuditLog`, and `maximumLimitAuditLog`.



This action is compulsory.

#### Proceed as follows

1. Open the existing file `logsDBConfig.xml` for editing.
2. Copy the following property block into the `<LogsDatabaseConfig>` tag of the open file `logsDBConfig.xml`:

```
<dataEntriesLimitAuditLog>
  <maximumLimitDaysAuditLog>0</maximumLimitDaysAuditLog>
  <minimumLimitAuditLog>40000</minimumLimitAuditLog>
  <maximumLimitAuditLog>50000</maximumLimitAuditLog>
</dataEntriesLimitAuditLog>
```

3. Save the file `logsDBConfig.xml`.
4. Restart the Process Engine.



In cluster mode, you can do the update node by node to avoid downtime.

## 4.1.13 Patch level 7.4.0.24 to 7.4.0.26

No additional patch steps are required.

## 4.1.14 Patch level 7.4.0.27

### 4.1.14.1 Updating Plug-ins and User Profiles for EDI Signature Utility

#### Action

To use the EDI Signature Utility, add the EDI Signature Utility as a new plug-in and add it to the following user profiles:

- System Administrator
- EAI Developer
- Project Lead

**Proceed as follows**

1. Create an `edi_sign.xml` file in a temporary directory `<local_temp_dir>`, for example `/tmp` or `c:\tmp`, with the following content:

```
<?xml version="1.0" encoding="UTF-8"?>
<Plugin>
  <Name>EDI Signature Utility</Name>
  <PluginGroup>Utilities</PluginGroup>
  <ClientJavaClass>com.inubit.ibis.plugins.edisign.EDISignatureClient</ClientJavaClass>
  <ClientComment>EDI Signature Utility Plugin, Toolset Version 6.0</ClientComment>
  <ServerJavaClass>com.inubit.ibis.plugins.edisign.EDISignatureGenerator</ServerJavaClass>
  <ServerComment>Server Version 6.0</ServerComment>
  <Image>icons/60x40/colored/edi_signature.svg</Image>
  <LastUpdateUser>root</LastUpdateUser>
  <LastUpdateTime>12.09.2019 11:45:00</LastUpdateTime>
</Plugin>
```

2. Start the inubit CLI as user `root` in a shell or the command prompt.

```
startcli -u root [<URL>]
```

3. Switch to cache mode:

```
CLI|root@{hostname}> cachemode
```

```
CLI|root@{hostname}>
```

4. Upload the plug-in data stored in the `<local_temp_dir>\edi_sign.xml` file.

```
CACHE|root@{hostname}> put PLUGIN_DATA "EDI Signature Utility" <local_temp_dir>/edi_sign.xml
```

5. Download the **System Administrator** user profile to the `<local_temp_dir>/SystemAdmin.xml` file.

```
CACHE|root@{hostname}> get USER_PROFILES "System Administrator" <local_temp_dir>/SystemAdmin.xml
```

6. Download the **EAI Developer** user profile to the `<local_temp_dir>/SystemAdmin.xml` file.

```
CACHE|root@{hostname}> get USER_PROFILES "EAI Developer" <local_temp_dir>/EAIDeveloper.xml
```

7. Download the **Project Lead** user profile to the `<local_temp_dir>/SystemAdmin.xml` file.

```
CACHE|root@{hostname}> get USER_PROFILES "Project Lead" <local_temp_dir>/ProjectLead.xml
```

8. Open the following files downloaded before and add the line `<Use>EDI Signature Utility</Use>` above the `</Profile>` tag and save the changes afterwards:

- `<local_temp_dir>/SystemAdmin.xml`
- `<local_temp_dir>/EAIDeveloper.xml`
- `<local_temp_dir>/ProjectLead.xml`

9. Upload the changed files using the following commands:

```
CACHE|root@{hostname}> put USER_PROFILES "System Administrator" <local_temp_dir>/SystemAdmin.xml
```

```
CACHE|root@{hostname}> put USER_PROFILES "EAI Developer" <local_temp_dir>/EAIDeveloper.xml
```

```
CACHE|root@{hostname}> put USER_PROFILES "Project Lead" <local_temp_dir>/ProjectLead.xml
```

10. Exit the cache mode and the inubit CLI using the `exit` command.

11. Restart the Process Engine or all the Process Engines of the cluster.

#### 4.1.14.2 Installer under Linux - Deactivate Memory check

##### Action

Set the `CHECK_DISK_SPACE` environment variable to `OFF`.

##### Proceed as follows

- C shell (`csch`, `tcsh`)

Execute the following command before starting the installation from here.

```
% setenv CHECK_DISK_SPACE OFF
```

- Unix shell, Korn shell, Bourne shell (`sh`, `ksh`, `bash`)

Execute the following command before starting the installation from here.

```
$ export CHECK_DISK_SPACE OFF
```

#### 4.1.14.3 Process Engine - Updating BouncyCastle library

##### Action

Update the bouncy castle library

##### Proceed as follows

1. Download the `bcprov-jdk15on-1.64.jar` file from Maven Central Repository and replace `bcprov-jdk15on-1.60.jar` in the folders below the inubit installation folder:

```
./client/lib
```

```
./server/Tomcat/webapps/ibis/WEB-INF/lib
```



As of patch level 7.4.0.28, this step is no longer needed because the BouncyCastle library is updated automatically.

2. Change `bcprov-jdk15on-1.60.jar` to `bcprov-jdk15on-1.64.jar` in the following scripts in the following folders below the inubit installation folder.

- `./server/benchmark/`

Update all `.sh` files for Linux and `.bat` for Windows.

- `./client/bin/`

Update the `check_is_status.sh/check_is_status.bat` file.

- `./server/Tomcat/bin/`

Update the following scripts:

- `check_is_status.sh/check_is_status.bat`
- `startcli.sh/startcli.bat`
- `ibis_nt_service_install.cmd`
- `./remoteConnector/bin`

Update the `rc_nt_service_install.cmd` script.

#### 4.1.15 Patch level 7.4.0.28

##### 4.1.15.1 inubit Liferay Plug-in Deployment Script - Updating BouncyCastle library

##### Action

Update the BouncyCastle library



### Proceed as follows

1. Go to the `<inubit-installdir>/server/portal/liferayInstallScripting` directory.
2. Open the `installInubitLiferayDXPExtensions.pl` file for editing.
3. Change the file name `bcprov-jdk15on-1.60.jar` to `bcprov-jdk15on-1.64.jar`.
4. Save the changes.

#### 4.1.15.2 Liferay Portal 7.x/DXP - Replacing the Company Logo

##### Action

Changing the company logo in the `portal-ext.properties` file of the Liferay installation

### Proceed as follows

1. Go to the `<inubit-installdir>/server/portal/inubitPlugins/<Liferay_version>/` directory.
2. Extract the `liferay-inubit-bootstrap-1.0.0.jar` archive to a temporary directory.
3. Go to the `ROOT/WEB-INF/classes/logo/` directory below the temporary directory created in step 2.
4. Copy the `logo_virtimo.png` file to the clipboard.
5. Paste the `logo_virtimo.png` from the clipboard to the `<Liferay_installdir>/Tomcat-dir/webapps/ROOT/WEB-INF/classes/logo/` directory.
6. Go to the `<Liferay_installdir>/` directory.
7. Open the `portal-ext.properties` file for editing.
8. Search for the line containing the string: `image.default.company.logo`
9. Change the line as follows:  
`image.default.company.logo=logo/logo_virtimo.png`
10. Restart Liferay for the changes to take effect.

#### 4.1.15.3 Process Engine, Cache - Update EDIFACT-ORDERS-D-96A.xml File

##### Action

Updating the `EDIFACT-ORDERS-D-96A.xml` file in both the cache and the Process Engine

### Prerequisites

- You have successfully executed the patch installer.
- The new `EDIFACT-ORDERS-D-96A.xml` file is available in the `<inubit-installdir>/server/ibis_root/conf/edi` directory.

### Proceed as follows

1. Updating `EDIFACT-ORDERS-D-96A.xml` file in the cache
  1. Start the inubit CLI.
  2. Enter the cache mode using the `cachemode` command.
  3. Execute the following command:  

```
put EDI_RULES EDIFACT-ORDERS-D-96A.xml <inubit-installdir>/server/ibis_root/conf/edi/EDIFACT-ORDERS-D-96A.xml
```
  4. Exit the cache mode.
2. Updating `EDIFACT-ORDERS-D-96A.xml` back-up file in the Process Engine
  1. Go to the `<inubit-installdir>/server/ibis_root/conf/edi` directory.
  2. Delete the existing `EDIFACT-ORDERS-D-96A.xml.bak` file.
  3. Rename the `EDIFACT-ORDERS-D-96A.xml` file to `EDIFACT-ORDERS-D-96A.xml.bak`.

## 4.1.16 Patch level 7.4.0.29

### 4.1.16.1 Process Engine - Updating Tomcat to 9.0.31

#### Action

Updating to Tomcat 9.0.31



Process the following steps before starting the patch installer.

#### Proceed as follows

1. Shut down the inubit Process Engine.
2. From the directory `<inubit-installdir>/server/Tomcat`, save all files that have been customized or that are especially adjusted to the system environment (for example, `setenv.sh`, `server.xml`, `portal-ext.properties`).
3. Backup and delete the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`.
4. Install the Process Engine 7.4.0.59 to a temporary directory.
5. Copy the Tomcat directory from that temporary installation folder `../server/Tomcat` to the `<inubit-installdir>/server` directory of your inubit installation.
6. In the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`, adjust all the files adjusted in the previous Tomcat installation based on the files saved in step 2.
7. Execute the patch installer of inubit 7.4.0.59.
8. In cluster mode: Execute steps 1 to 7 for all the other nodes in your cluster.

## 4.1.17 Patch level 7.4.0.30

### 4.1.17.1 Repository - Updating the EDIFACT Folder

#### Action

Update the `content.xml` File in the EDIFACT folder

#### Prerequisites

You have updated your inubit installation to inubit patch level 7.4.0.30.

#### Proceed as follows

Log on to the Workbench as inubit administrator.

Open the **Repository** tab.

Open the **Global > System > EDI Specification > EDIFACT** folder.

Delete the existing `content.xml` file.

Open the context menu and choose the **Add file or directory** item.

Open the `<inubit-installdir>/server/ibis_root/ibis_data/repository/deploy/Global/System/EDI Specification/EDIFACT/content.xml` file.

Click on **Next** and **Finish** to add the `content.xml` file to the inubit **Repository**.

## 4.1.18 Patch level 7.4.0.31

No additional patch steps are required.

## 4.1.19 Patch level 7.4.0.32

### 4.1.19.1 All Components – Update JDK/Java to Version 11.0.7

#### Action

Update the JDK/Java installation used by your inubit installation(s) for all inubit components to Version 11.0.7 as described in the [Updating JDK to a newly supported Version](#) section.

### 4.1.19.2 Process Engine - Updating the BouncyCastle Library to Version 1.65

#### Action

Update the bouncy castle library to version 1.65

#### Proceed as follows

Replace the file name `bcprov-jdk15on-1.64.jar` with `bcprov-jdk15on-1.65.jar` in the following scripts in the following folders below the inubit installation folder.

- `./server/benchmark/`  
Update all `.sh` scripts for Linux and `.bat` scripts for Windows.
- `./client/bin/`  
Update the `check_is_status.sh/check_is_status.bat` script.
- `./server/Tomcat/bin/`  
Update the following scripts:
  - `check_is_status.sh/check_is_status.bat`
  - `startcli.sh/startcli.bat`
  - `ibis_nt_service_install.cmd`
- `./remoteConnector/bin`  
Update the `rc_nt_service_install.cmd` script.

### 4.1.19.3 inubit Liferay Plug-in Deployment Script - Updating the BouncyCastle Library to Version 1.65

#### Action

Update the BouncyCastle library to `bcprov-jdk15on-1.65.jar` in the inubit Liferay Plug-in Deployment Script

#### Proceed as follows

1. Go to the `<inubit-installdir>/server/portal/liferayInstallScripting/` folder.
2. Open the `installInubitLiferayDXPEExtensions.pl` script for editing.
3. Search for the `bcprov-jdk15on-1.64.jar` file name and replace it with the following file name:  
`bcprov-jdk15on-1.65.jar`
4. Save the changes.

### 4.1.19.4 Windows inubit Start Scripts - Updating Title, Service Name, and Service Description

#### Action

**Windows only:** Update title, service name, and service description in the inubit start scripts for Windows

#### Proceed as follows

1. Go to the `<inubit-installdir>/server/Tomcat/bin/` folder.
2. Open the `ibis_nt_service_install.cmd` script for editing.
3. Search for the `SERVICE_NAME` variable.

4. Replace the value `inubit IS Tomcat` with the string `inubit BPM 7.4 Service`.
5. Add a new line below the line where you have set the `SERVICE_NAME` variable.
6. Copy the following command in the newly added line:
 

```
set SERVICE_DESCRIPTION=inubit BPM 7.4 Process Engine available as a service
```
7. Search for the string `%JAVA_SERVICE_EXE%` -install.
8. Add a new line below the line with the string `%JAVA_SERVICE_EXE%` -install.
9. Copy the following command in the newly added line:
 

```
sc description "%SERVICE_NAME%" "%SERVICE_DESCRIPTION%"
```
10. Save your changes.
11. Open the `ibis_nt_service_uninstall.cmd` script for editing.
12. Search for the `SERVICE_NAME` variable.
13. Replace the value `inubit IS Tomcat` with the string `inubit BPM 7.4 Service`.
14. Save your changes.
15. Open the `setenv.bat` script for editing.
16. Search for the `TITLE` variable.
17. Replace the value `inubit` with the string `inubit BPM 7.4 Service`.
18. Save your changes.

#### 4.1.19.5 Patching Liferay Portal 7.x/DXP

##### Action

Patching Liferay 7.x/DXP

##### Proceed as follows

Refer to [Patching Liferay 7.x/DXP](#)

#### 4.1.20 Patch level 7.4.0.33

No additional patch steps are required.

#### 4.1.21 Patch level 7.4.0.34

##### 4.1.21.1 Process Engine – Updating Tomcat to 9.0.35

##### Action

Update Tomcat to 9.0.35



Process the following steps before starting the patch installer.

##### Proceed as follows

1. Shut down the inubit Process Engine.
2. From the directory `<inubit-installdir>/server/Tomcat`, save all files that have been customized or that are especially adjusted to the system environment (for example, `setenv.sh`, `server.xml`, `portal-ext.properties`).
3. Backup and delete the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`.
4. Install the Process Engine 7.4.0.59 to a temporary directory.
5. Copy the Tomcat directory from that temporary installation folder `../server/Tomcat` to the `<inubit-installdir>/server` directory of your inubit installation.

6. In the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`, adjust all the files adjusted in the previous Tomcat installation based on the files saved in step 2.
7. As of inubit BPM 7.4.0.33, the `<inubit-installdir>` placeholder contains the additionally `inubit` sub-directory. When patching from inubit BPM for Linux below version 7.4.0.33, you have to adjust the following scripts and configuration files or you have to replace them with the corresponding files from the backup directory.

Proceed with one of the following steps for the files listed below.

- **inubitis**

- Replace the `<inubit-installdir>/server/Tomcat/bin/inubitis` script with the corresponding script from the backup directory.
- Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/server/Tomcat/bin/inubitis.conf` file.

- **inubitis.conf**

- Replace the `<inubit-installdir>/server/Tomcat/bin/inubitis.conf` file with the corresponding file from the backup directory.
- Adjust the `IS_DIR` variable with the correct path to the `<inubit-installdir>` directory.

- **inubitSystemd**

- Replace the `<inubit-installdir>/server/Tomcat/bin/inubitSystemd` script with the corresponding script from the backup directory.
- Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/server/Tomcat/bin/inubitis.conf` file.

- **inubitrc**

- Replace the `<inubit-installdir>/remoteConnector/bin/inubitrc` script with the corresponding script from the backup directory.
- Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/remoteConnector/bin/inubitrc.conf` file.

- **inubitrc.conf**

- Replace the `<inubit-installdir>/remoteConnector/bin/inubitrc.conf` file with the corresponding file from backup directory.
- Adjust the `RC_DIR` variable with the correct path to the `<inubit-installdir>` directory.

- **inubitrcSystemd**

- Replace the `<inubit-installdir>/remoteConnector/bin/inubitrcSystemd` script with the corresponding script from backup directory.
- Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/remoteConnector/bin/inubitrc.conf` file

8. Execute the inubit patch installer.
9. In cluster mode: Execute steps 1 to 8 for all the other nodes in your cluster.

#### 4.1.21.2 Key Manager – Displaying new Columns Containing Certificate Details

##### Action

In the **Key Manager**, activate the new check boxes to display certificate details.

##### Prerequisites

You have executed the patch installer 7.4.0.34 successfully.

##### Proceed as follows

1. Log in to the inubit Workbench.
2. Display the **Monitoring > Key Manager** tab.

3. Right-click the table header and check the check boxes for both new columns **Serial number** and **Subject**.

#### 4.1.21.3 Liferay 7.0 – Unchecking the Expose Global Option to use the Updated Fusion Charts Library

##### Action

Uncheck the **Expose global** option to use the updated fusion charts library in Liferay 7.0 to display reports in Report Viewer.

##### Proceed as follows

1. Log on to Liferay 7.0 as Liferay administrator.
2. Open the Control Panel.
3. Navigate to **Configuration > System Settings > Foundation** tab.
4. Click **JavaScript Loader**.
5. Uncheck the **Expose global** option.
6. Click **Save** or **Update** in order for the changes to take effect.

#### 4.1.21.4 Certain Scripts can be Used with Relative Paths – Renaming New Scripts and Adjusting them if necessary

##### Action

When you want to use a script with a relative path: Rename the new script to be used with a relative path, and adjust it if necessary.

##### Prerequisites

There is a new script containing the `_patch` string in its name.

##### Proceed as follows

1. Backup the script you are using currently.
2. Remove the `_patch` string from the corresponding new script.
3. When having adjusted the formerly used scripts, adjust the renamed scripts with changes you made before to the backed up scripts.
4. Save the changes.

#### 4.1.21.5 Scripts to Install/Uninstall the Process Engine as a Service under Windows – Adjusting the Scripts

##### Action

**Windows only:** To ascertain the Java version correctly, the install/uninstall scripts to start the Process Engine as a Service under Windows need to be adjusted

##### Proceed as follows

1. If the Process Engine is installed as a service stop the Process Engine service.
2. Uninstall the Process Engine service.
3. Navigate to the `<inubit-installdir>\server\Tomcat\bin` directory.
4. Open the `ibis_nt_service_install.cmd` script for editing.
5. Replace two lines as follows:

##### Lines to be replaced:

```
for /f "tokens=3" %%g in ('%JAVA_HOME%\bin\java -version 2^>^&1 ^| findstr /i
"version"') do set JAVA_VERSION=%%g
for /f tokens^=2-5^ delims^=.-_^" %%i in ('%JAVA_HOME%\bin\java -fullversion 2^>^&1')
do set "jver=%%i"
```

##### New lines to replace:

```
for /f "tokens=3" %%g in ('"%JAVA_HOME%\bin\java" -version 2>&1 | findstr /i
version"') do set JAVA_VERSION=%%g
for /f tokens^=2-5^ delims^=.-_%" %%i in ('"%JAVA_HOME%\bin\java" -fullversion 2>&1"')
do set "jver=%%i"
```

6. Save the changes in order for the changes to take effect.
7. Open the `ibis_nt_service_uninstall.cmd` script for editing.
8. Replace two lines as follows:

**Lines to be replaced:**

```
for /f "tokens=3" %%g in ('%JAVA_HOME%\bin\java -version 2^>^&1 ^| findstr /i
"version"') do set JAVA_VERSION=%%g
for /f tokens^=2-5^ delims^=.-_%" %%i in ('%JAVA_HOME%\bin\java -fullversion 2^>^&1')
do set "jver=%%i"
```

**New lines to replace:**

```
for /f "tokens=3" %%g in ('"%JAVA_HOME%\bin\java" -version 2>&1 | findstr /i
version"') do set JAVA_VERSION=%%g
for /f tokens^=2-5^ delims^=.-_%" %%i in ('"%JAVA_HOME%\bin\java" -fullversion 2>&1"')
do set "jver=%%i"
```

9. Save the changes in order for the changes to take effect.
10. Now, you can install and start the Process Engine as a Service.

#### 4.1.21.6 inubit Repository – Updating AS4 Mapping Templates and CPA Files

##### Action

Update the AS4 Mapping templates in the **Global Repository** and the CPA files used for AS4 Connectors.

##### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Repository** tab.
3. Open the **Global > System > Mapping Templates** directory.
4. Right-click the **AS4** directory.
5. Choose the **Update Directory** menu item.
  - The files `as4-cpa-repository.xml` and `as4-cpa-repository.xsd` are updated to the new version.
6. In order to update all CPA xml files used for your AS4 Connector modules, replace `bosch-si.com` with `virtimo.de` in all these CPA xml files.

#### 4.1.22 Patch level 7.4.0.35 to 7.4.0.36

No additional patch steps are required.

#### 4.1.23 Patch level 7.4.0.37

##### 4.1.23.1 Installer under Linux – Updating `java_home_path_setter.sh`

##### Action

**Linux only:** Updating the `java_home_path_setter.sh` file in case of a Linux installation and the `JAVA_HOME` path contain spaces.



This action is compulsory.

##### Proceed as follows

1. Open the `<inubit-installdir>/java_home_path_setter.sh` file.

2. Check if `JAVA_HOME` is set and has a space in the path.

If so, enclose the path in double quotes, for example:

```
JAVA_HOME="/home/inubit/jdk 11"
```

3. Save the file.



In cluster mode, you can do the update node by node to avoid downtime.

#### 4.1.24 Patch level 7.4.0.38

##### 4.1.24.1 Liferay 7.x/DXP – Patching Liferay Portal 7.x/DXP

###### Action

Patching Liferay 7.x/DXP

###### Proceed as follows

1. Open the `<inubit-installdir>/server/portal/inubitPlugins/<Liferay_version>/` directory.
2. Extract the `liferay-inubit-bootstrap-1.0.0.jar` archive to a temporary directory.
3. Open root directory below the temporary directory created in step 2.
4. Open the `portal-ext.properties` file for editing.
5. Copy the property `module.framework.properties.org.osgi.framework.bootdelegation` with the provided value to the clipboard.
6. Open the `<Liferay_installdir>/` directory.
7. Open the `portal-ext.properties` file for editing.
8. Paste the copied property value from clipboard, which was copied in step 5, to the end of the `portal-ext.properties` file.
9. Restart Liferay for the changes to take effect.

#### 4.1.25 Patch level 7.4.0.39

##### 4.1.25.1 Process Engine – Updating Tomcat to 9.0.37

###### Action

Update Tomcat to 9.0.37



Process the following steps before starting the patch installer.

###### Proceed as follows

1. Shut down the inubit Process Engine.
2. From the directory `<inubit-installdir>/server/Tomcat`, save all files that have been customized or that are especially adjusted to the system environment (for example, `setenv.sh`, `server.xml`, `portal-ext.properties`).
3. Backup and delete the Tomcat directory of your inubit installation `<inubit-installdir>/server/Tomcat`.
4. Install the Process Engine 7.4.0.59 to a temporary directory.
5. Copy the Tomcat directory from that temporary installation folder `../server/Tomcat` to the `<inubit-installdir>/server` directory of your inubit installation.
6. **For Linux only:** If inubit BPM or Remote Connector was installed as a service, the following steps are necessary. As of inubit BPM 7.4.0.36, the `<inubit-installdir>` placeholder contains the additional inubit sub-directory. When patching from inubit BPM for Linux below version 7.4.0.36, you have to adjust the following scripts and configuration files or you have to replace them with the corresponding files from the backup directory.



- If inubit was installed as a service using `Systemd`, proceed as follows:

- Stop the `inubit systemd` service if already running.
- Remove the symbolic link named `inubit.service` in the `/etc/systemd/system` directory.
- Proceed with the following steps for the files listed below.

**inubitis.conf**

Replace the `<inubit-installdir>/server/Tomcat/bin/inubitis.conf` file with the corresponding file from the backup directory.

Adjust the `IS_DIR` variable with the correct path to the `<inubit-installdir>` directory.

**inubitSystemd**

Replace the `<inubit-installdir>/server/Tomcat/bin/inubitSystemd` script with the corresponding script from the backup directory.

Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/server/Tomcat/bin/inubitis.conf` file.

**inubit.service**

Replace the `<inubit-installdir>/server/Tomcat/bin/inubit.service` file with the corresponding file from the backup directory.

Adjust the `PIDFile` variable with the correct path to the `<inubit-installdir>/server/Tomcat/bin/catalina.pid` file.

Adjust the `CATALINA_HOME` environment variable with the correct path: `CATALINA_HOME=<inubit-installdir>/server/Tomcat`

Adjust the `WorkingDirectory` variable with the correct path to: `<inubit-installdir>/server/Tomcat/bin`

Adjust the `ExecStart` variable with the correct path to: `<inubit-installdir>/server/Tomcat/bin/inubitSystemd start`

Adjust the `ExecStop` variable with the correct path to: `<inubit-installdir>/server/Tomcat/bin/inubitSystemd stop`

Create the symbolic link for `inubit.service` as mentioned in inubit documentation (refer to section *Installing the inubit Process Engine Under Linux as Service Using Systemd*).

- If inubit was installed as a service using `SysVinit`, proceed as follows:

- Stop the `SysVinit` service if already running
- Proceed with one of the following steps for the files listed below.

**inubitis**

Replace the `/etc/init.d/inubitis` script with the corresponding script from the backup directory.

Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/server/Tomcat/bin/inubitis.conf` file.

**inubitis.conf**

Replace the `/etc/inubitis.conf` file with the corresponding file from the backup directory.

Adjust the `IS_DIR` variable with the correct path to the `<inubit-installdir>` directory.

- If Remote Connector was installed as a service using `Systemd`, proceed as follows:

- Stop the `rc systemd` service if already running.
- Remove the symbolic link named `rc.service` in the `/etc/systemd/system` directory.
- Proceed with one of the following steps for the files listed below.

**inubitr.conf**

Replace the `<inubit-installdir>/remoteConnector/bin/inubitr.conf` file with the corresponding file from backup directory.

Adjust the `RC_DIR` variable with the correct path to the `<inubit-installdir>` directory.

**inubitrSystemd**

Replace the `<inubit-installdir>/remoteConnector/bin/inubitrSystemd` script with the corresponding script from backup directory.

Adjust the `CONFIG_FILE` variable with the correct path to: `<inubit-installdir>/remoteConnector/bin/inubitr.conf`

**inubitr.service**

Replace the `<inubit-installdir>/remoteConnector/bin/inubitr.service` file with the corresponding file from backup directory.

Adjust the `WorkingDirectory` variable with the correct path to the `<inubit-installdir>/remoteConnector/bin` directory.

Adjust the `ExecStart` variable with the correct path to: `<inubit-installdir>/remoteConnector/bin/inubitrSystemd start`

Adjust the `ExecStop` variable with the correct path to: `<inubit-installdir>/remoteConnector/bin/inubitrSystemd stop`

Create the symbolic link for `rc.service` as mentioned in inubit documentation (refer to section *Installing the inubit Remote Connector Under Ubuntu as Service Using Systemd*)

- If Remote Connector was installed as a service using SysVinit, proceed as follows:

**inubitr**

Replace the `/etc/init.d/inubitr` script with the corresponding script from the backup directory.

Adjust the `CONFIG_FILE` variable with the correct path to the `<inubit-installdir>/remoteConnector/bin/inubitr.conf` file.

**inubitr.conf**

Replace the `/etc/inubitr.conf` file with the corresponding file from backup directory.

Adjust the `RC_DIR` variable with the correct path to the `<inubit-installdir>` directory.

7. For all files being not adjusted in step 6 but being adjusted in the previous Tomcat installation in the Tomcat directory `<inubit-installdir>/server/Tomcat` of your inubit installation: Adjust all the remaining files based on the files saved in step 2.
8. Execute the inubit patch installer.
9. In cluster mode: Execute steps 1 to 8 for all the other nodes in your cluster.

**4.1.26 Patch level 7.4.0.40****4.1.26.1 All Components – Update JDK/Java to Version 11.0.8****Action**

Update the JDK/Java installation used by your inubit installation(s) for all inubit components to Version 11.0.8 as described in the [Updating JDK to a newly supported Version](#) section.

**4.1.26.2 Process Engine as a Service under Windows – Using Log File Rotation****Action**


Optionally: To provide log file rotation when operating the inubit Process Engine as a service, use the newly provided scripts.

The following scripts to install/uninstall **inubit BPM 7.4 Service** are available in the `<inubit-installdir>\server\Tomcat\bin\` directory after having patched your inubit BPM installation:

- `ibis_nt_service_nssm_install_patch.cmd`
- `ibis_nt_service_nssm_uninstall_patch.cmd`

**Proceed as follows**

1. When you have already installed the inubit Process Engine as a service:

- a. Stop the inubit Process Engine service.
  - b. Uninstall the inubit Process Engine service.  
Refer to the section *Installing/Uninstalling the inubit Process Engine as Service Under Windows* in the Installation Guide in the inubit documentation.
2. Open the `<inubit-installdir>\server\Tomcat\bin\` directory.
  3. Open the `ibis_nt_service_nssm_install_patch.cmd` script for editing.
  4. Configure the following parameters accordingly to your needs:
    - **NSSM\_ROTATE\_FILE**
      - 0: No log file rotation
      - 1: Log file rotation
    - **NSSM\_ROTATE\_FILE\_SIZE**  
Configure the maximum log file size in bytes. By default, the maximum log file size is set to 10 Mbyte:  
`NSSM_ROTATE_FILE_SIZE=10000000`
    - **NSSM\_ROTATE\_ONLINE**
      - 0: The log files are rotating only if the maximum log file size configured using the `NSSM_ROTATE_FILE_SIZE` parameter has exceeded when the service is (re)started.
-  If the service shall run for a long time without being restarted, this value should not be used.
- 1: The log files are rotating while the service is running.
5. Save the changes.
  6. Execute the `ibis_nt_service_nssm_install.cmd` script to install the inubit Process Engine service.  
→ The inubit Process Engine is installed as **inubit BPM 7.4 Service** with the start type **Automatic** and it can be started. Once the system is (re)started, the **inubit BPM 7.4 Service** is started automatically.
  7. Start the **inubit BPM 7.4 Service** using the **Services** application or the following command: `net start "inubit BPM 7.4 Service"`  
→ Depending on your configuration, in the `<inubit-installdir>\server\Tomcat\logs` directory, the following log files rotate/do not rotate.  
`stderr.log`  
`stdout.log`
  8. To stop the **inubit BPM 7.4 Service**, use the **Services** application or the following command: `net stop "inubit BPM 7.4 Service"`
  9. To uninstall the **inubit BPM 7.4 Service**, execute the `ibis_nt_service_nssm_uninstall_patch.cmd` script in the `<inubit-installdir>\server\Tomcat\bin\` directory.

#### 4.1.26.3 Remote Connector as a Service under Windows – Using Log File Rotation

##### Action

Optionally: To provide log file rotation when operating the Remote Connector as a service, use the newly provided scripts.

The following scripts are available to install/uninstall the **inubit IS Remote Connector** service in the `<inubit-installdir>\remoteConnector\bin\` directory after having patched your inubit BPM installation:

- `rc_nt_service_nssm_install_patch.cmd`
- `rc_nt_service_nssm_uninstall_patch.cmd`

##### Proceed as follows

1. When you have already installed the Remote Connector as a service:
  - a. Stop the Remote Connector service.

- b. Uninstall the Remote Connector service.

Refer to the section *Installing/Uninstalling the Remote Connector as Service* in the Administration Guide in the inubit documentation.

2. Open the `<inubit-installdir>\remoteConnector\bin\` directory.
3. Open the `rc_nt_service_nssm_install_patch.cmd` script for editing.
4. Configure the following parameters accordingly to your needs.

- **NSSM\_ROTATE\_FILE**

- 0: No log file rotation
- 1: Log file rotation

- **NSSM\_ROTATE\_FILE\_SIZE**

Configure the maximum log file size in bytes. By default, the maximum log file size is set to 1 Mbyte:

```
NSSM_ROTATE_FILE_SIZE=1000000
```

- **NSSM\_ROTATE\_ONLINE**

- 0: The log files are rotating only if the maximum log file size configured using the `NSSM_ROTATE_FILE_SIZE` parameter has exceeded when the service is (re)started.



If the service shall run for a long time without being restarted, this value should not be used.

- 1: The log files are rotating while the service is running.

5. Save the changes.
6. Execute the `rc_nt_service_nssm_install_patch.cmd` script to install the inubit Remote Connector service.
  - The inubit Remote Connector is installed as **inubit IS Remote Connector** service with the start type **Automatic** and it can be started. Once the system is (re)started, the **inubit IS Remote Connector** service is started automatically.
7. Start the **inubit IS Remote Connector** service using the **Services** application or the following command: `net start "inubit IS Remote Connector"`
  - Depending on your configuration, in the `<inubit-installdir>\remoteConnector\log` directory, the following log files rotate/do not rotate.
 

```
rc.out.log
rc.err.log
```
8. To stop the **inubit IS Remote Connector** service, use the **Services** application or the following command: `net stop "inubit IS Remote Connector"`
9. To uninstall the **inubit IS Remote Connector** service, execute the `rc_nt_service_nssm_uninstall_patch.cmd` script in the `<inubit-installdir>\remoteConnector\bin\` directory.

#### 4.1.27 Patch level 7.4.0.41

##### 4.1.27.1 Repository – Update the iSConfiguration Template File

###### Action

Update the IS Configuration template file to be able to use the `getWorkflowList` operation with the `UserName` element in order to retrieve a user name.

###### Proceed as follows

1. Log in to the Workbench as `root` administrator.
  2. Open the Repository tab.
  3. Open the `/Global/System/Mapping Templates/IS Configuration/ Repository` path.
  4. Right-click the `IS Configuration` folder and choose the **Update Directory** context menu item.
- The `configuration.xml` file stored in this folder will be replaced with the file provided by the patch installer.

#### 4.1.27.2 BPC Portal – Preparatory Work for the purpose of Configuring Documentation Modules


##### Action

Preparing your patched your inubit installation in order to configure and deploy documentation modules for the BPC portal.

##### Prerequisites

You have configured the Business Process Center as portal server.

##### Proceed as follows

1. Open the **Configuration > General Settings > Portal > Portal Deployment** tab.  
After having patched, the value of the **Documentation modules in BPC** option is 0/0.
  2. To load the DocumentationModule configuration file click the  icon at the **Documentation modules in BPC** option.
  3. The configuration file is loaded and can be configured, refer to the *Configuring documentation modules for BPC* section in the inubit BPM Administration Guide.
- The **Documentation modules in BPC** option has a value greater than 0/0, depending on how many documentation modules you have configured.

#### 4.1.28 Patch level 7.4.0.42

No additional patch steps are required.

#### 4.1.29 Patch level 7.4.0.43

##### 4.1.29.1 Liferay Portal – Updating the jQuery Library

##### Action

When using a Liferay portal 7.x/DXP: Patch Liferay Portal 7.x/DXP to update the jQuery library

##### Proceed as follows

1. Stop Liferay.
2. Navigate to the `<inubit-installdir>/server/portal/inubitPlugins/<Liferay-version>` directory.
3. Extract the `jquery-3.5.1.js` and `jquery-3.5.1.min.js` files from the `ROOT/html/js/jquery/` directory of the `liferay-inubit-bootstrap-1.0.0.jar` archive.
4. Navigate to the `<Liferay-installdir>/<Tomcat-dir>/webapps/ROOT/html/js/jquery/` directory.
5. Remove the existing `jquery*.js` files, for example `jquery-1.9.1.js` and `jquery-1.9.1.min.js`.
6. Copy the extracted files `jquery-3.5.1.js` and `jquery-3.5.1.min.js` to the `<Liferay-installdir>/<Tomcat-dir>/webapps/ROOT/html/js/jquery/` directory.
7. Navigate to the `<Liferay-installdir>/<Tomcat-dir>/webapps/ROOT/html/common/themes/` directory.
8. Open the `top_js-ext.jspf` file for editing.
9. Replace the string `/html/js/jquery/jquery-1.9.1.min.js` in line 7 with the following string: `/html/js/jquery/jquery-3.5.1.min.js`
10. Start Liferay for the changes to take effect.

##### 4.1.29.2 Process Engine – Optional: Removing unnecessary Tomcat directories

##### Action

Optional: To increase the security of your inubit BPM installation, remove unnecessary Tomcat directories

##### Proceed as follows

1. Stop the inubit Process Engine.
2. Navigate to the `<inubit-installdir>/server/Tomcat/webapps/` directory.

### 3. Remove the following directories:

- docs
- examples
- manager
- host-manager

#### 1. Start the inubit Process Engine.

## 4.1.29.3 Process Engine – Updating the SAP JCo and IDoC libraries to version 3.1

### Prerequisites

- For downloading the installation files, you need a user name and a password for the SAP Marketplace.
- The SAP installation instructions state that a JDK 1.3 or higher is required.

### Action

When using SAP Connectors with SAP JCo 3.0 libraries: Update the SAP JCo and IDoC libraries to version 3.1.

### Proceed as follows

1. In a browser, open the URL <https://support.sap.com/en/product/connectors/jco.html>.
2. Download the 3.1 version of the following libraries and decompress them:
  - **SAP IDOC Class Library**, for example `sapidoc3_3.1.x.zip`  
Contains `sapidoc3.jar`
  - **SAP Java Connector** (suitable for your operation system), for example `sapjco3-NTintel-3.1.x.zip`  
Contains
    - `sapjco3.jar`
    - depending on your choice for example `sapjco3.dll` (Windows) or `libsapjco3.so` (Linux)
3. Copy the files `sapidoc3.jar` and `sapjco3.jar` to the directory `<inubit-installdir>/server/Tomcat/webapps/ibis/WEB-INF/lib`.



If you get an error message referring to the missing middleware layer, read the SAP note 684106 (which you find in the SAP Marketplace) and apply the solution suggested there.

4. Depending on your operating system, copy the `*.dll/*.so` files to one of the following directories:
  - **Windows**
    - When starting the inubit Process Engine via the Start menu: `<java-installdir>\bin`
    - When using the inubit Process Engine as a service under tomcat: `<inubit-installdir>\server\Tomcat\bin`
  - **Linux**  
`<java-installdir>/lib`



You may also need to add the directory to the `PATH` environment variable.

5. Restart the inubit Process Engine.

## 4.1.29.4 inubit Repository – Updating AS4 Mapping Templates

### Action

Update the AS4 mapping templates in the **Global Repository**.

### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Repository** tab.
3. Open the **Global > System > Mapping Templates** directory.
4. Right-click the **AS4** directory.
5. Choose the **Update Directory** menu item.  
→ The files `as4-cpa-repository.xml` and `as4-cpa-repository.xsd` are updated to the new version.

#### 4.1.29.5 inubit Repository - Updating the Widget Directory

##### Action

Update the files in the **Global Repository**.

### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System** directory.
4. Right-click the **Widgets** directory.
5. Select the **Update Directory** menu item.  
→ The files in the Widgets directory are updated to the new version.

#### 4.1.29.6 inubit Repository - Updating the EDI Specification

##### Action

Update the `content.xml` file in the **Global Repository** as the following rule versions have been added:

- D16A
- D16B
- D17A
- D17B
- D18A
- D18B
- D19A
- D19B
- D20A

### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Repository** tab.
3. Open the **Global > System** directory.
4. Right-click the **EDI Specification** directory.
5. Select the **Update Directory** menu item.  
→ The new rule versions have been added to the `content.xml` file.

#### 4.1.30 Patch level 7.4.0.44

##### 4.1.30.1 inubit Repository – Updating AS4 Mapping Templates and CPA Files

##### Action

- Update the AS4 mapping templates in the **Global Repository** regarding the new `connectiontimeout` property.

- Update the CPA XML files used for your existing AS4 Connector modules to use the new `connectiontimeout` property.

#### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Repository** tab.
3. Open the **Global > System > Mapping Templates** directory.
4. Right-click the **AS4** directory.
5. Choose the **Update Directory** menu item.
  - The files `as4-cpa-repository.xml` and `as4-cpa-repository.xsd` are updated to the new version.
6. To use the `connectiontimeout` property in the CPA XML files used for your existing AS4 Connector modules, add it to the CPA XML files as in the templates and adjust the default value (60 seconds) if necessary.

#### 4.1.31 Patch level 7.4.0.45 to 7.4.0.46

No additional patch steps are required.

#### 4.1.32 Patch level 7.4.0.47

##### 4.1.32.1 Process Engine - Updating Tomcat to 9.0.43

#### Action

As Tomcat has been updated automatically to version 9.0.43 during patch installation, check whether manual steps are necessary.

#### Proceed as follows

Refer to [Updating Tomcat](#).

##### 4.1.32.2 Repository – Updating the IS Configuration Template File

#### Action

Update the IS Configuration template file in order that the user `root` can use the `cacheOperation` operation with the `get` or the `put` element to retrieve or write data from or to the cache database.

#### Proceed as follows

1. Log in to the Workbench as `root` administrator.
2. Open the Repository tab.
3. Open the `/Global/System/Mapping Templates/IS Configuration/ Repository` path.
4. Right-click the `IS Configuration` folder and choose the **Update Directory** context menu item.
  - The `configuration.xml` file stored in this folder will be replaced with the file provided by the patch installer.

##### 4.1.32.3 inubit Repository - Updating TextExample.xml File for MIME Adapter

#### Action

Update the `TextExample.xml` file in the **Global Repository** to use the new headers `BCC` and `Reply-To` to configure and to use the recipient for a blind copy and the reply-to address.

#### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Repository** tab.
3. Open the **Global > System > Mapping Templates** directory.



4. Right-click the **MIME Adapter** directory.
5. Select the **Update Directory** menu item.  
→ The `TextExample.xml` file is updated and can be used.

#### 4.1.32.4 Repository – Updating the PDF Toolbox directory

##### Action

Update the `PDF Toolbox Repository` path in order to import the schema files `Embed.xsd` and `Merge.xsd` provided by the patch installer. These schema files can be used to validate the input message, refer to the *PDF Toolbox - Utility* chapter in the inubit documentation.

##### Proceed as follows

1. Log in to the Workbench as `root` administrator.
2. Open the Repository tab.
3. Open the `/Global/System/Mapping Templates/PDF Toolbox/ Repository` path.
4. Right-click the `PDF Toolbox` folder and choose the **Update Directory** context menu item.

→ Both files `Embed.xsd` and `Merge.xsd` are stored in this folder.

#### 4.1.32.5 All Components - Updating Scripts Due to the BouncyCastle Library Update

##### Action

Update the listed scripts regarding the BouncyCastle library update to version `bcprov-jdk15on-1.68.jar`

##### Proceed as follows

Replace the file name `bcprov-jdk15on-1.*.jar` with `bcprov-jdk15on-1.68.jar` in the following scripts.

- `<inubit-installdir>/server/benchmark/`  
Update all `.sh` scripts for Linux and `.bat` scripts for Windows.
- `<inubit-installdir>/client/bin/`  
Update the `check_is_status.sh/check_is_status.bat` script.
- `<inubit-installdir>/remoteConnector/bin`  
Update the `rc_nt_service_install.cmd` script.
- `<inubit-installdir>/server/portal/liferayInstallScripting/`  
Update the `installInubitLiferayDXPEExtensions.pl` script.

When having manually adjusted the following former scripts now located in the `<inubit-installdir>/server/Tomcat_backup/bin` directory, adjust the new scripts in the `<inubit-installdir>/server/Tomcat/bin` directory in the same way.

When having copied the scripts from the `<inubit-installdir>/server/Tomcat_backup/bin` directory to the `<inubit-installdir>/server/Tomcat/bin` directory, make sure that the `bcprov-jdk15on-1.68.jar` file name is set in the following scripts.

- `check_is_status.sh/check_is_status.bat`
- `startcli.sh/startcli.bat`
- `ibis_nt_service_install.cmd`

#### 4.1.32.6 Process Engine as a Service under Windows - Re-installing the Service

##### Action

**Windows only:** Re-install the Process Engine if it is installed as a service.

## Prerequisites

You have installed the inubit Process Engine under Windows as a service.

## Proceed as follows

1. Stop the inubit Process Engine service.
2. Uninstall the inubit Process Engine service using one of the scripts `ibis_nt_service_uninstall.cmd` or `ibis_nt_service_nssm_uninstall.cmd` from the backup directory:

```
<inubit-installdir>\server\Tomcat_backup\bin
```



When having manually adjusted the former `ibis_nt_service*install.cmd` scripts now located in the `<inubit-installdir>\server\Tomcat_backup\bin` directory, adjust the new `ibis_nt_service*install.cmd` scripts in the `<inubit-installdir>\server\Tomcat\bin` directory in the same way.

When having copied the `ibis_nt_service_uninstall.cmd` scripts from the `<inubit-installdir>\server\Tomcat_backup\bin` directory to the `<inubit-installdir>\server\Tomcat\bin` directory, make sure that the `bcprov-jdk15on-1.68.jar` file name is set.

3. Install the inubit Process Engine service using one of the scripts `ibis_nt_service_install.cmd` or `ibis_nt_service_nssm_install.cmd` in the following directory:

```
<inubit-installdir>\server\Tomcat\bin
```

4. Start the inubit Process Engine service.

### 4.1.33 Patch level 7.4.0.48

No additional patch steps are required.

### 4.1.34 Patch level 7.4.0.49

#### 4.1.34.1 Linux - Adjust User To Run inubit Process Engine as Service Using `systemd`

To install the inubit Process Engine as a service using `systemd`, by default, the user name is used who has installed inubit BPM. If this user differs from the user is running the inubit Process Engine as a service using `systemd`, you have to adjust the user name.

## Action

**For Linux only:** Adjust the user name in the `inubit.service` configuration file.

## Proceed as follows

1. Navigate to the `<inubit-installdir>/server/Tomcat/bin/` directory.
2. Open the `inubit.service` file for editing.
3. In the line starting with `User=`, replace the existing user name with the user who shall run the inubit Process Engine as a service using `systemd`.
4. Save the changes.

→ The user configured in the `inubit.service` file can run the inubit Process Engine as a service using `systemd`.

### 4.1.34.2 Liferay Portal - Patching Liferay Portal 7.3/DXP

## Action

Patching Liferay 7.3/DXP

**Proceed as follows**

1. Go to the `<inubit-installdir>/server/portal/inubitPlugins/7.3.10/` directory.
2. Extract the `liferay-inubit-bootstrap-1.0.0.jar` archive to a temporary directory.
3. Go to temporary directory created in step 2.
4. Open the `portal-ext.properties` file.
5. Copy the property `module.framework.properties.org.osgi.framework.bootdelegation` with the provided value to the clipboard.
6. Go to the `<Liferay-installdir>/` directory.
7. Open the `portal-ext.properties` file for editing.
8. Replace the `module.framework.properties.org.osgi.framework.bootdelegation` property and its value in the `portal-ext.properties` file from the property and its value copied in step 5 to the clipboard.
9. Restart Liferay for the changes to take effect.
10. Navigate to the `<inubit-installdir>/server/portal/inubitPlugins/7.3.10` directory.
11. Copy the `com.inubit.ibis.portal.liferay.api-1.0.0.jar` file to the `<Liferay-installdir>/deploy` directory.
12. Wait for the message that `com.inubit.ibis.portal.liferay.api-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
13. Copy the `com.inubit.ibis.portal.liferay.service-1.0.0.jar` file to the `<Liferay-installdir>/deploy` directory.
14. Wait for the message that `com.inubit.ibis.portal.liferay.service-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
15. Copy the `com.inubit.ibis.portal.liferay.service-wsdd-1.0.0.jar` file to the `<Liferay-installdir>/deploy` directory.
16. Wait for the message that `com.inubit.ibis.portal.liferay.service-wsdd-1.0.0.jar` is started to appear in the `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` file or in the startup Command Prompt window (Windows only).
17. Clear the cache by deleting the `<Liferay-installdir>/<Tomcat-dir>/work/Catalina/localhost` directory.

**4.1.34.3 inubit Repository - Updating the Widget Directory****Action**

Update the files in the **Global Repository**.

When having adjusted the existing `Widget.xml` files in the directories **ExtFormPanel** and/or **Grid**, update the files manually as follows:

Replace the line `Ext.state.Manager.setProvider(new Ext.state.CookieProvider());` by the following lines:

```
if(typeof BpcCommon == 'undefined'){
Ext.state.Manager.setProvider(new Ext.state.LocalStorageProvider());
}
```

**Proceed as follows**

You must not execute the following steps if the existing `Widget.xml` files in the directories **ExtFormPanel** and/or **Grid** were manually adjusted. In this case, adjust the files as described above.

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Widgets** directory.
4. Right-click the **ExtFormPanel** directory.
5. Select the **Update Directory** menu item.
6. Right-click the **Grid** directory.
7. Select the **Update Directory** menu item.
  - The `Widget.xml` files in both directories are updated to the new version.
8. Redeploy the tasklist instances.

#### 4.1.35 Patch level 7.4.0.50

##### 4.1.35.1 Liferay Portal - Patching Liferay Portal 7.3/DXP

###### Action

Patching Liferay 7.3/DXP

###### Proceed as follows

1. Go to the `<inubit-installdir>/server/portal/inubitPlugins/7.3.10/` directory.
2. Copy the `com.inubit.ibis.portal.liferay.api-1.0.0.jar` file to the `<liferay-installdir>/deploy` directory.
3. Wait for the message that `com.inubit.ibis.portal.liferay.api-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
4. Copy the `com.inubit.ibis.portal.liferay.service-1.0.0.jar` file to the `<liferay-installdir>/deploy` directory.
5. Wait for the message that `com.inubit.ibis.portal.liferay.service-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
6. Copy the `com.inubit.ibis.portal.liferay.service-wsdd-1.0.0.jar` file to the `<liferayinstalldir>/deploy` directory.
7. Wait for the message that `com.inubit.ibis.portal.liferay.service-wsdd-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
8. Clear the cache by deleting the `<Liferay-installdir>/<Tomcat-dir>/work/Catalina/localhost` directory.

#### 4.1.36 Patch level 7.4.0.51

No additional patch steps are required.

#### 4.1.37 Patch level 7.4.0.52

##### 4.1.37.1 BPC Portal - Updating BPC Modules

###### Action

Update the BPC modules to version 3.2.4.

###### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.

- You have successfully executed the 7.4.0.52 patch installer for inubit BPM or BPC.

### Proceed as follows

#### inubit BPM patch installation

1. Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

#### BPC patch installation

1. Navigate to the `<bpc installdir>/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

### 4.1.37.2 Liferay Portal - Redeploying Tasklists



#### Action

Redeploy Tasklists on Liferay Portal

#### Prerequisites

- You have configured Liferay as portal server for inubit BPM.
- You have successfully executed the 7.4.0.52 patch installer for inubit BPM.

### Proceed as follows

1. In the inubit Workbench, display the **Configuration > General Settings** tab.
2. Open the configuration area **Portal > Portal Deployment**.
3. At the option **Portlet-Archive** click **Open** . A dialog opens.
4. In the area **Archives on portal server** in the column **Action** click the **Redeploy archive** icon  for the archive containing the tasklists.
5. Confirm the next dialog.
6. The deployment starts. A dialog with a progress bar is displayed.
7. After the deployment has been finished successfully, this dialog is closed automatically.
8. Close the dialog.

### 4.1.38 Patch level 7.4.0.53

#### 4.1.38.1 AS4 Gateway Table Partitioning

#### Action

Update the file `<inubit-installdir>/server/ibis_root/conf/as4/as4-gateway.xml`.

#### Prerequisites

You have updated your inubit installation to inubit patch level 7.4.0.53.

### Proceed as follows

1. Open the file `<inubit-installdir>/server/ibis_root/conf/as4/as4-gateway.xml` for editing.
2. Add the following entry:

```
<!-- SQL script file name. This script is run during AS4 gateway start up -->
<entry key="sql.script.filename"></entry>
```
3. Save and close the file.

### 4.1.38.2 Remote Connector - Updating Service-related script files

#### Action

Update the service-related script files `inubitrSystemd` and `start_rc.sh`.

#### Prerequisites

You have updated your inubit installation to inubit patch level 7.4.0.53.

#### Proceed as follows

1. Go to folder `<inubit-installdir>/inubit/remoteConnector/bin`.  
`cd <inubit-installdir>/inubit/remoteConnector/bin`
2. Rename the file `inubitrSystemd` to `inubitrSystemd_original`.  
`mv inubitrSystemd inubitrSystemd_original`
3. Rename the file `inubitrSystemd_patch` to `inubitrSystemd`.  
`mv inubitrSystemd_patch inubitrSystemd`
4. Rename the file `start_rc.sh` to `start_rc_original.sh`.  
`mv start_rc.sh start_rc_original.sh`
5. Rename the file `start_rc_patch.sh` to `start_rc.sh`.  
`mv start_rc_patch.sh start_rc.sh`
6. Adjust the script files if any custom changes were made in `inubitrSystemd_original` and `start_rc_original.sh`.
7. If not already done, create the `systemd` service and start or restart the Remote Connector `systemd` service.

### 4.1.38.3 Deployment - Migrating the Process Id Range Information to Backups Before Patch Level 7.4.0.53

#### Action

Add the `process_id.xml` file with the process Id range information to the backup archive. It will be used during migration/restore to proceed with the higher of the two process Id ranges in the target system.



Process the following steps **before** starting the patch installer.

#### Proceed as follows

1. In the source system, enter the following command to start the CLI mode:  
`./startcli.sh -u root http://localhost:8000/ibis/servlet/IBISSoapServlet`
2. Enter the root password.
3. Execute the following commands to extract the `ProcessId` information:  
`CLI|root@HOSTNAME> cachemode`  
`CACHE|root@HOSTNAME> get RUNTIME_PROPERTIES ProcessId /Path/to/Backup/process_id.xml`
4. Keep the downloaded `process_id.xml` file. It contains the `ProcessId` information, 10000 in the following example:  
`<Property name="ProcessId" type="Long">10000</Property>`
5. Add the `process_id.xml` file to the root folder of the backup archive.

### 4.1.38.4 Workbench - Replacing Start Script

#### Action

To update the Workbench in background, there are new Workbench start scripts to make sure that former versions of the existing files (`ibis.jar` and `ibis_tools.jar`) are backed up automatically:

**Linux:** `start_local_patch.sh`

**Windows:** start\_local\_patch.bat



When not using the start\_local\_patch.[sh|bat] script, you have to make sure that the existing files (ibis.jar and ibis\_tools.jar) are backed up manually before starting the update in background.

### Prerequisites

You have successfully patched the inubit installation to inubit BPM 7.4.0.53.

### Proceed as follows

1. Navigate to the <inubit-installdir>/inubit/client/bin directory.
2. Rename the existing start\_local.[sh|bat] script to start\_local\_old.[sh|bat].
3. Rename the start\_local\_patch.[sh|bat] script to start\_local.[sh|bat].
4. When having manually adjusted the former start\_local.[sh|bat] script, adjust the new start\_local.[sh|bat] script in the same way.

## 4.1.38.5 BPC Portal - Updating BPC Modules

### Action

Update the BPC modules to version 3.3.

### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.53 patch installer for inubit BPM or BPC.

### Proceed as follows

#### inubit BPM patch installation

1. Navigate to the <inubit-installdir>/portal/bpc\_modules directory.
2. Copy the updated modules (frontend and backend) to the <bpc-installdir>/bpc/<Karaf-dir>/deploy directory.

#### BPC patch installation

1. Navigate to the <bpc installdir>/bpc\_modules directory.
2. Copy the updated modules (frontend and backend) to the <bpc-installdir>/bpc/<Karaf-dir>/deploy directory.

## 4.1.38.6 Liferay Portal - Redeploying Tasklists


### Action


Redeploy Tasklists on Liferay Portal

### Prerequisites

- You have configured Liferay as portal server for inubit BPM.
- You have successfully executed the 7.4.0.53 patch installer for inubit BPM.

### Proceed as follows

1. In the inubit Workbench, display the **Configuration > General Settings** tab.
2. Open the configuration area **Portal > Portal Deployment**.
3. At the option **Portlet-Archive** click **Open** . A dialog opens.

4. In the area **Archives on portal server** in the column **Action** click the **Redeploy archive** icon  for the archive containing the tasklists.
5. Confirm the next dialog.
6. The deployment starts. A dialog with a progress bar is displayed.
7. After the deployment has been finished successfully, this dialog is closed automatically.
8. Close the dialog.

#### 4.1.38.7 inubit Repository - Updating the Widget.xsl file

##### Action

Update the `Widget.xsl` file in the `/Global/System/Widgets/ExtFormPanel/` Repository directory.

##### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Widgets > ExtFormPanel** directory.
  - When having adjusted the `Widget.xsl` file manually, add the `format: 'json'` line as follows:
 

```
var bundle = Ext.create(bundlePackage, {
    bundle : 'Application',
    path: path,
    lang : '<xsl:value-of select="lang"/>',
    noCache: true,
    format: 'json'
  });
```
  - Otherwise, right-click the **ExtFormPanel** directory and select the **Update Directory** menu item.

→ The `Widget.xsl` file in the **ExtFormPanel** directory is updated to the new version.
4. **Redeploying or adjusting Web Application Connector modules**
  - **Liferay portal:** Redeploy the Web Application Connector modules as described in the *Deploying modified portlets* section in the Workbench User Guide of the inubit documentation.
  - **BPC portal:** When using a custom form panel for a Web Application Connector module, modify it similar to the updated `Widget.xsl` file in the **ExtFormPanel** Repository folder in step 3 and in the form submission handler function.

#### 4.1.39 Patch level 7.4.0.54

##### 4.1.39.1 BPC Portal - Updating BPC Modules

##### Action

Update the BPC modules to version 3.3.1.

##### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.54 patch installer for inubit BPM or BPC.

##### Proceed as follows

##### inubit BPM patch installation

1. Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.



2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

### BPC patch installation

1. Navigate to the `<bpc installdir>/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

## 4.1.40 Patch level 7.4.0.55

### 4.1.40.1 BPC Portal - Updating BPC Modules

#### Action

Update the BPC modules to version 3.3.2.

#### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.55 patch installer for inubit BPM or BPC.

#### Proceed as follows

##### inubit BPM patch installation

1. Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

##### BPC patch installation

1. Navigate to the `<bpc installdir>/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

### 4.1.40.2 inubit Repository - Updating the Widgets Directory

#### Action

Update the files in the **Global** Repository.

#### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Widgets** directory.
4. When having adjusted the current `Widget.xml` file in the `ExtFormPanel` directory manually, backup the current `Widget.xml` file, for example, to the file system.
5. Right-click the following directories successively and select the **Update Directory** menu item.
  - `ExtComboBox`
  - `ExtDateField`
  - `ExtFormPanel`
  - `ExtNumberField`
  - `ExtTextField`
  - `Grid`→ The files in the Widgets directories are updated to the new version.

- When having backed up the `Widget.xml` file in step 4, adjust the updated `Widget.xml` file as the `Widget.xml` file you have backed up before.

#### 4.1.41 Patch level 7.4.0.56

##### 4.1.41.1 All Components – Update Java/JDK to Version 11.0.12

###### Action

Update the Java/JDK installation used by your inubit BPM installation(s) for all inubit BPM components to version 11.0.12 as described in the [Updating JDK to a newly supported Version](#) section.

##### 4.1.41.2 BPC Portal - Updating BPC Modules

###### Action

Update the BPC modules to version 3.3.3.

###### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.56 patch installer for inubit BPM or BPC.

###### Proceed as follows

###### inubit BPM patch installation

- Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.
- Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

###### BPC patch installation

- Navigate to the `<bpc installdir>/bpc_modules` directory.
- Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

##### 4.1.41.3 Liferay Portal - Redeploying Process Viewer Portlets



###### Action

Redeploy Process Viewer portlets on Liferay Portal

###### Prerequisites

- You have configured Liferay as portal server for inubit BPM.
- You have successfully executed the 7.4.0.56 patch installer for inubit BPM.

###### Proceed as follows

- In the inubit Workbench, display the **Configuration > General Settings** tab.
- Open the configuration area **Portal > Portal Deployment**.
- At the option **Portlet-Archive** click **Open** . A dialog opens.
- In the area **Archives on portal server** in the column **Action** click the **Redeploy archive** icon  for the archive containing the Process Viewer portlet.
- Confirm the next dialog.
- The deployment starts. A dialog with a progress bar is displayed.
- After the deployment has been finished successfully, this dialog is closed automatically.
- Close the dialog.

## 4.1.42 Patch level 7.4.0.57

### 4.1.42.1 Liferay Portal - Patching Liferay Portal 7.x/DXP

#### Action

Adjust the `top_js-ext.jspf` file

#### Prerequisites

You have configured Liferay 7.x/DXP as portal.

#### Proceed as follows

1. Stop your Liferay.
2. Navigate to the `<Liferay-installdir>/Tomcat/webapps/ROOT/html/common/themes/` directory.
3. Open the `top_js-ext.jspf` file for editing.
4. Replace the string `/group/control_panel` with the string `/control_panel`.
5. Delete the `<Liferay-installdir>/Tomcat/Work/Catalina/localhost` directory.
6. Start your Liferay for the changes to take effect.

### 4.1.42.2 Liferay Portal - Patching or Redeploying Tasklist

#### Action

Patch or redeploy Tasklist Ext.

#### Prerequisites

You are using Tasklist Ext or tasklists based on Tasklist Ext on a Liferay portal.

#### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Configuration > General Settings > Portal Deployment > Task Lists on the portal** menu.
  - When using the default Tasklist Ext, redeploy the Tasklist Ext.
  - When using a custom copy of Tasklist Ext
    - a. Add the `remoteFilter: true`, statement as follows:

```
...
var <xsl:value-of select="$wid"/>storeExtJsIS = Ext.create('Ext.data.Store', {
    storeId: 'taskliststore',
    autoLoad : false,
    pageSize: <xsl:value-of select="$pageRows"/>,
    remoteSort: true,
    remoteFilter: true,
    remoteGroup : true,
    ...

```

- b. Save the changes.
- c. Re-deploy the custom copy of Tasklist Ext.

### 4.1.42.3 BPC Portal - Updating BPC Modules

#### Action

Update the BPC modules to version 3.3.4.

## Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.57 patch installer for inubit BPM or BPC.

## Proceed as follows

### inubit BPM patch installation

1. Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

### BPC patch installation

1. Navigate to the `<bpc-installdir>/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

## 4.1.42.4 inubit Repository - Updating the PDF Toolbox Repository Directory

### Action

Update the files in the **PDF Toolbox** Repository directory.

### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Mapping Templates > PDF Toolbox** directory.
4. When having adjusted the current files in the **PDF Toolbox** directory manually, backup the current files, for example, to the file system.
5. Right-click the **PDF Toolbox** directory and select the **Update Directory** menu item.  
→ The files in the **PDF Toolbox** directory are updated to the new version.
6. When having backed up the files in step 4, adjust the updated files as the files you have backed up before.

## 4.1.43 Patch level 7.4.0.58

### 4.1.43.1 inubit Repository - Updating the ExtFormPanel Directory

### Action

Update files in the **Global** Repository.

### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Widgets** directory.
4. When having adjusted files in the **ExtFormPanel** directory manually, backup the current files, for example, to the file system.
5. Right-click the **ExtFormPanel** directory and select the **Update Directory** menu item.  
→ The files in the **ExtFormPanel** directory are updated to the new version.
6. When having backed up files in step 4, adjust the updated files as the files you have backed up before.

### 4.1.43.2 BPC Portal - Updating BPC Modules

#### Action

Update the BPC modules to version 3.3.5.

#### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.58 patch installer for inubit BPM or BPC.

#### Proceed as follows

##### inubit BPM patch installation

1. Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

##### BPC patch installation

1. Navigate to the `<bpc-installdir>/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

### 4.1.44 Patch level 7.4.0.59

#### 4.1.44.1 inubit Repository - Updating the ExtFormPanel Directory

##### Action

Update files in the **Global** Repository.

##### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Widgets** directory.
4. When having adjusted files in the **ExtFormPanel** directory manually, backup the current files, for example, to the file system.
5. Right-click the **ExtFormPanel** directory and select the **Update Directory** menu item.  
→ The files in the **ExtFormPanel** directory are updated to the new version.
6. When having backed up files in step 4, adjust the updated files as the files you have backed up before.

#### 4.1.44.2 Repository - Updating EDIFACT Directory

##### Action

Update the EDIFACT Directory to EDIFACT D20B

##### Prerequisites

You have updated your inubit installation to inubit patch level 7.4.0.59

##### Proceed as follows

1. Log on to the Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > EDI Specification > EDIFACT** Directory.

4. Right-click the **EDIFACT** folder to open the context menu and choose the **Update directory** item.  
→ The **EDIFACT** Directory is updated to EDIFACT D20B.

#### 4.1.44.3 BPC Portal - Updating BPC Modules

##### Action

Update the BPC modules to version 3.4.

##### Prerequisites

- You have installed the BPC portal for inubit BPM.
- You have configured BPC as portal server for inubit BPM.
- You have successfully executed the 7.4.0.59 patch installer for inubit BPM or BPC.

##### Proceed as follows

##### inubit BPM patch installation

1. Navigate to the `<inubit-installdir>/portal/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

##### BPC patch installation

1. Navigate to the `<bpc-installdir>/bpc_modules` directory.
2. Copy the updated modules (frontend and backend) to the `<bpc-installdir>/bpc/<Karaf-dir>/deploy` directory.

#### 4.1.44.4 Liferay Portal - Patching or Redeploying Tasklist

##### Action

Patch or redeploy Tasklist Ext.

##### Prerequisites

You are using Tasklist Ext or tasklists based on Tasklist Ext on a Liferay portal.

##### Proceed as follows

1. Log in to the inubit Workbench as administrator.
2. Open the **Configuration > General Settings > Portal Deployment > Task Lists on the portal** menu.
  - When using the default Tasklist Ext, redeploy the Tasklist Ext.
  - When using a custom copy of Tasklist Ext, proceed as follows:
    - a. Add the following statement three times below the `if(columnName == 'creation'` statements.

```
if(dateInMilli === undefined){
    dateInMilli = item[k].getValue().valueOf();
}
```

Afterwards, the three new statements must look like this:

```
...
if(columnName == 'creation' || columnName == 'expiration'){
    var dateInMilli = item[k].dateValue;
    if(dateInMilli === undefined){
        dateInMilli = item[k].getValue().valueOf();
    }
    var operator = item[k].config.operator;
    var filterUrl =
```

```
'&filterField='columnName'&filterValue='dateInMilli'&filterComparison='+operator;
  newfilterUrl = newfilterUrl.concat(filterUrl);
}
...
```

- b. Save the changes.
- c. Re-deploy the custom copy of Tasklist Ext.

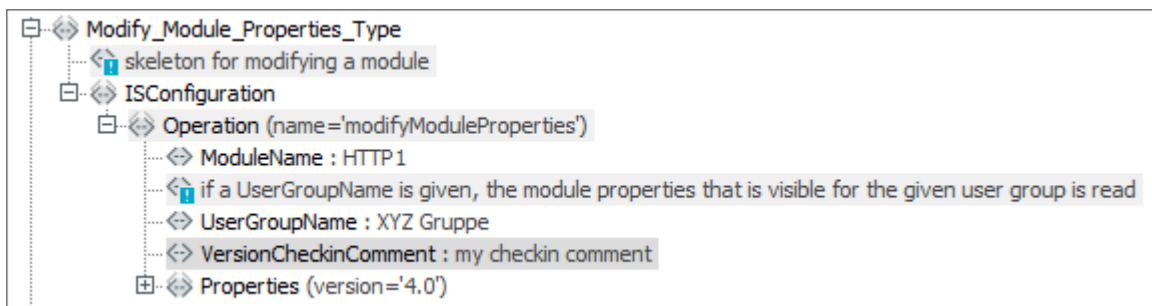
#### 4.1.44.5 inubit Repository - Updating the IS Configuration Directory

##### Action

Update the `configuration.xml` file of the IS Configuration utility module in the **Global** Repository in order to use the `VersionCheckInComment` attribute for the `modifyModuleProperties` operation. With this attribute, you can add a version check-in comment for modules during modification using the IS Configuration utility.

##### Proceed as follows

1. Log in to the inubit Workbench as `root`.
2. Open the **Repository** tab.
3. Open the **Global > System > Mapping Templates** directory.
4. Right-click the **IS Configuration** directory and select the **Update Directory** menu item.
  - The files in the **IS Configuration** directory are updated to the new version. Afterwards, the `Modify_Module_Properties_Type` section looks like this:



#### 4.1.44.6 Process Engine - Updating Tomcat to 9.0.54

##### Action

As Tomcat has been updated automatically to version 9.0.54 during patch installation, check whether manual steps are necessary.

##### Proceed as follows

Refer to [Updating Tomcat](#).

## 4.2 Updating JDK to a newly supported Version

##### Action

Update the JDK/Java installation used for all inubit components (Process Engine(s), Workbench(es), Remote Connector(s) etc.) to the newly supported Version, refer to Software Requirements.

⚠ Additional drivers and libraries must be copied manually to the appropriate directories. This applies, for example, for the SAP library (`sapjco3.dll` or `libsapjco3.so`). Certificates that are additionally installed in the JDK directory must be reinstalled manually in the appropriate directory.

### Proceed as follows

1. Back up all files of your JDK/Java installation you have added or adjusted manually.
2. Follow the update instructions of the JDK/Java installation you are using for your inubit installation(s).
3. Copy or adjust all files you have backed up in step 1 to or in your JDK/Java installation.

## 4.3 Patching Liferay 7.x/DXP

### Prerequisites

You have performed the [Default Patch Steps](#).

An additional patch step regarding patching Liferay is required, refer to [Additional Patch Steps](#).

### Proceed as follows

1. Back up all manually adjusted files, for example, the `top_js-ext*.jspf` files in the following directory:  
`<Liferay-installdir>/<Tomcat-dir>/webapps/ROOT/html/common/themes`
2. Start the portal server if necessary.
3. Navigate to the `<inubit-installdir>/server/portal/inubitPlugins/7.0.4` directory.
4. Copy the `com.inubit.ibis.portal.liferay.api-1.0.0.jar` file to the `<liferay-installdir>/deploy` directory.
5. Wait for the message that `com.inubit.ibis.portal.liferay.api-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
6. Copy the `com.inubit.ibis.portal.liferay.service-1.0.0.jar` file to the `<liferay-installdir>/deploy` directory.
7. Wait for the message that `com.inubit.ibis.portal.liferay.service-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
8. Copy the `com.inubit.ibis.portal.liferay.service-wsdd-1.0.0.jar` file to the `<liferay-installdir>/deploy` directory.
9. Wait for the message that `com.inubit.ibis.portal.liferay.service-wsdd-1.0.0.jar` is started to appear in file `<Liferay-installdir>/<Tomcat-dir>/logs/catalina.out` or in the startup Command Prompt window (Windows only).
10. Clear cache by deleting `<Liferay-installdir>/<Tomcat-dir>/work/Catalina/localhost` folder.
11. Adjust all manual adjusted files as you did in the files you have backed up in step 1.



## 5 Patching inubit BPC

### 5.1 Patching inubit BPC modules

#### Usage

The inubit patch installer includes the option to patch inubit BPC.

#### Prerequisites

- You have installed a former inubit BPC version as of inubit BPM 7.4.0.36.
- You have downloaded the inubit patch installer, refer to [Downloading the Executable Patch](#).
  - **Windows**  
`.\patchWinX64-7.4.0.59.exe`
  - **Linux**  
`./patchLinuxX64-7.4.0.59.bin`
- You have stopped both Elasticsearch and Karaf, refer to the *Starting and Stopping the Business Process Center* section in the *inubit BPM Installation Guide*.

#### Proceed as follows

1. Start the patch installer.  
→ A GUI opens with the patch installer start screen.



If the patch installer is not able to start the GUI due to a missing graphical environment, e.g., on a Linux server, it automatically starts in console mode.

2. Choose the installer language.
3. In the **Choose Install Set** dialog, choose **Business Process Center**.
4. Choose the directory where the BPC to be patched is installed.



The patch installer checks whether the directories `elasticsearch` and `karaf` or `elasticsearch-7.5.2` and `karaf-3.0.2` exist below the `<bpc-installdir>` directory. If they exist, the patch installation continues as usual. Otherwise, an error message is displayed to ask to enter a valid path.

5. Check the Patch Installation Guide for additional hints.
6. Check the Pre-Installation Summary.
7. Click **Install** to start the patch installation actually.  
→ The latest BPC modules (`war` files, `jar` files, and the BPC workflow patch `BusinessProcessCenter-workflow-patch-<bpc-version>.diagrams.zip`) will be added to the `<bpc-installdir>/bpc_modules` directory.



Before installing the new BPC modules, the files in the `<bpc-installdir>/bpc_modules/` directory are backed up to the `<bpc-installdir>/bpc_modules/lastversion_backup/` directory.

Already deployed modules inside `<bpc_installdir>/karaf/deploy/` are backed up to the `<bpc-installdir>/bpc_modules/deploy_backup/` directory.

The `lastversion_backup` directory can be used if you want to roll back to a previous version of BPC before patching 7.4.0.39.

– Rollback of BPC to previous BPC version is possible as of inubit BPM 7.4.0.36. You can roll back manually by deploying BPC modules from the backup folders (`lastversion_backup` and `deploy_backup`) below the `<bpc_installdir>/bpc_modules/` directory.

The current BPC patch workflows are stored as `BusinessProcessCenter-workflow-patch-<bpcversion>.diagrams.zip` file in the `<bpc-installdir>/bpc_modules/` directory.

If the directories `lastversion_backup` and `deploy_backup` exist, they will be deleted.

8. Once the patch installer has finished successfully, start Elasticsearch and Karaf, refer to the *Starting and Stopping the Business Process Center* section in the *inubit BPM Installation Guide*.
9. Copy the updated modules (frontend and backend) from the `bpc_modules` directory to the `<bpc_installdir>/bpc/<Karaf-dir>/deploy` directory.
10. Wait until all the modules are deployed successfully and are in the `Active` status.
11. Check the following log file for error messages in the `<bpc-installdir>` directory:  
`inubit_Patch_Install_<date_time>.log`

Continue with [Updating the BPC Workflows](#) section.

## 5.2 Updating the BPC Workflows

### Usage

To update the BPC workflows

### Prerequisites

- You have executed the inubit patch installer using the **Business Process Center** option in the **Choose Install Set** dialog.
- You are logged in as `root` administrator to the inubit BPM Workbench.

### Proceed as follows

1. Switch to the **BusinessProcessCenter** additional user group using the **File > Switch to additional user group > BusinessProcessCenter** menu.
  2. Import the updated BPC workflows using the **Edit > Import > inubit diagram(group)** menu.
    - a. Choose the new `BusinessProcessCenter-workflow-patch-<bpc-version>.diagrams.zip` file from the `<bpc-installdir>/bpc_modules` directory.
    - b. Choose the **BusinessProcessCenter** user group in the **User/User group** section.
    - c. To prevent both the System Connector settings and the variable values from being overwritten, deactivate the corresponding option.
  3. Click **Finish** to start the import.
- The updated BPC workflows are added as a new version of the already existing diagrams.

Check the configuration at least in the following updated workflows.

- **BPC\_199\_BPC\_Configuration**: Configure in order that BPC and inubit BPM can communicate correctly, refer to Configuring BPC Monitoring Settings in the Process Monitor User Guide.
- **BPC\_299\_PM\_Configuration**: Configure if the BPC Process Monitor module shall be used, refer to Configuring Grid initially.
- **BPC\_399\_Converter\_Configuration**: Configure if the BPC Converter module shall be used, refer to Configuring the BPC Database Connection.
- **BPC\_499\_VAM\_Konfiguration**: Configure the organization ID if the Data Management module shall be used
- **BPC\_doc\_Konfiguration**: Configure the variables mapping of the **BPC\_doc\_initializeConfig** module as described in the comments of the workflow if the BPC Documentation module shall be used.

## Index

- inubit Liferay Plug-in Deployment Script - Updating the BouncyCastle Library to Version 1.65 27

### A

- Additional Patch Steps 16
- All Components – Update Java/JDK to Version 11.0.12 50
- All Components – Update JDK/Java to Version 11.0.7 27
- All Components – Update JDK/Java to Version 11.0.8 34
- All Components - Updating Scripts Due to the BouncyCastle Library Update 41
- AS4 Gateway Table Partitioning 45

### B

- BPC Portal – Preparatory Work for the purpose of Configuring Documentation Modules 37
- BPC Portal - Updating BPC Modules 44, 47, 48, 49, 50, 51, 53, 54

### C

- Certain Scripts can be Used with Relative Paths – Renaming New Scripts and Adjusting them if necessary 30
- Creating Backup of Current inubit Installation Before Patching 8

### D

- Default Patch Steps 8
- Deployment - Migrating the Process Id Range Information to Backups Before Patch Level 7.4.0.53 46
- Downloading the Executable Patch 9

### E

- EDI Adapter - Adapt the EDI-XML to Consider Name and def Attributes in rule\_hwed.xsd 21
- Executing the Patch Installer in Console Mode 11
- Executing the Patch Installer in Graphical Mode 9
- Executing the Patch Installer in Unattended Mode 12

### I

- Installer - Updating .bat or .sh Scripts Setting JAVA\_HOME 19
- Installer - Updating ibis.xml and logsDBConfig.xml 19
- Installer - Updating logsDBConfig.xml 22
- Installer under Linux - Deactivate Memory check 24
- Installer under Linux – Updating java\_home\_path\_setter.sh 31
- inubit Liferay Plug-in Deployment Script - Updating BouncyCastle library 24
- inubit Repository – Updating AS4 Mapping Templates 38

- inubit Repository – Updating AS4 Mapping Templates and CPA Files 31, 39
- inubit Repository - Updating TextExample.xml File for MIME Adapter 40
- inubit Repository - Updating the EDI Specification 39
- inubit Repository - Updating the ExtFormPanel Directory 52, 53
- inubit Repository - Updating the IS Configuration Directory 55
- inubit Repository - Updating the PDF Toolbox Repository Directory 52
- inubit Repository - Updating the Widget Directory 43, 39
- inubit Repository - Updating the Widget.xsl file 48
- inubit Repository - Updating the Widgets Directory 49

### K

- Key Manager – Displaying new Columns Containing Certificate Details 29

### L

- Liferay 7.0 – Unchecking the Expose Global Option to use the Updated Fusion Charts Library 30
- Liferay 7.x/DXP – Patching Liferay Portal 7.x/DXP 32
- Liferay Plug-ins - Patching Liferay 7.x/DXP 17
- Liferay Portal - Patching Liferay Portal 7.3/DXP 42, 44
- Liferay Portal - Patching Liferay Portal 7.x/DXP 51
- Liferay Portal - Patching or Redeploying Tasklist 51, 54
- Liferay Portal - Redeploying Process Viewer Portlets 50
- Liferay Portal - Redeploying Tasklists 45, 47
- Liferay Portal – Updating the jQuery Library 37
- Liferay Portal 7.x/DXP - Replacing the Company Logo 25
- Liferay Portal 7.x/DXP: Redeploying Liferay Plug-ins 18
- Linux - Adjust User To Run inubit Process Engine as Service Using systemd 42

### O

- Overview 7

### P

- Patch level 7.4.0.12 17
- Patch level 7.4.0.13 18
- Patch level 7.4.0.14 18
- Patch level 7.4.0.15 to 7.4.0.17 19
- Patch level 7.4.0.18 19
- Patch level 7.4.0.19 21
- Patch level 7.4.0.20 to 7.4.0.21 21
- Patch level 7.4.0.22 21

- Patch level 7.4.0.23 22
- Patch level 7.4.0.24 to 7.4.0.26 22
- Patch level 7.4.0.27 22
- Patch level 7.4.0.28 24
- Patch level 7.4.0.29 26
- Patch level 7.4.0.30 26
- Patch level 7.4.0.31 26
- Patch level 7.4.0.32 27
- Patch level 7.4.0.33 28
- Patch level 7.4.0.34 28
- Patch level 7.4.0.35 to 7.4.0.36 31
- Patch level 7.4.0.37 31
- Patch level 7.4.0.38 32
- Patch level 7.4.0.39 32
- Patch level 7.4.0.4 17
- Patch level 7.4.0.40 34
- Patch level 7.4.0.41 36
- Patch level 7.4.0.42 37
- Patch level 7.4.0.43 37
- Patch level 7.4.0.44 39
- Patch level 7.4.0.45 to 7.4.0.46 40
- Patch level 7.4.0.47 40
- Patch level 7.4.0.48 42
- Patch level 7.4.0.49 42
- Patch level 7.4.0.5 17
- Patch level 7.4.0.50 44
- Patch level 7.4.0.51 44
- Patch level 7.4.0.52 44
- Patch level 7.4.0.53 45
- Patch level 7.4.0.54 48
- Patch level 7.4.0.55 49
- Patch level 7.4.0.56 50
- Patch level 7.4.0.57 51
- Patch level 7.4.0.58 52
- Patch level 7.4.0.59 53
- Patch level 7.4.0.6 to 7.4.0.11 17
- Patch Step List 16
- Patching BPC Using the Unattended Patch Installer 14
- Patching inubit BPC 57
- Patching inubit BPC modules 57
- Patching Liferay 7.x/DXP 56
- Patching Liferay Portal 7.x/DXP 21, 21, 28
- Patching with the Patch Installer 8
- Privacy Statement 6
- Process Engine – Optional: Removing unnecessary Tomcat directories 37
- Process Engine - Updating BouncyCastle library 24
- Process Engine - Updating the BouncyCastle Library to Version 1.65 27
- Process Engine – Updating the SAP JCo and IDoC libraries to version 3.1 38
- Process Engine - Updating Tomcat to 9.0.20 17
- Process Engine - Updating Tomcat to 9.0.31 26
- Process Engine – Updating Tomcat to 9.0.35 28
- Process Engine – Updating Tomcat to 9.0.37 32
- Process Engine - Updating Tomcat to 9.0.43 40
- Process Engine - Updating Tomcat to 9.0.54 55

- Process Engine as a Service under Windows - Re-installing the Service 41
- Process Engine as a Service under Windows – Using Log File Rotation 34
- Process Engine, Cache - Update EDIFACT-ORDERS-D-96A.xml File 25

## R

- Remote Connector - Updating Service-related script files 46
- Remote Connector as a Service under Windows – Using Log File Rotation 35
- Repository – Update the iSConfiguration Template File 36
- Repository - Updating EDIFACT Directory 53
- Repository - Updating the EDIFACT Folder 26
- Repository – Updating the IS Configuration Template File 40
- Repository – Updating the PDF Toolbox directory 41
- Restoring the Previously backed up inubit Installation After the Patch Installation was Canceled 8

## S

- Scripts to Install/Uninstall the Process Engine as a Service under Windows – Adjusting the Scripts 30

## U

- Updating JDK to a newly supported Version 55
- Updating Plug-ins and User Profiles for EDI Signature Utility 22
- Updating the BPC Workflows 58
- Updating Tomcat 15

## W

- Windows inubit Start Scripts - Updating Title, Service Name, and Service Description 27
- Workbench - Adjust the config.xml file 18
- Workbench - Replacing Start Script 46

Your feedback helps us to continuously improve our products and components. Please send any questions, comments or suggestions for improvement to [support@virtimo.de](mailto:support@virtimo.de).

**Virtimo AG**

Behrenstraße 18

10117 Berlin

GERMANY

Tel. +49 30 55574400

[info@virtimo.de](mailto:info@virtimo.de)

[www.virtimo.de/en](http://www.virtimo.de/en)