

intellicus

Intellicus Upgrade to 18.x

Version: 18.1

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Acknowledgements

Intellicus acknowledges using of third-party libraries to extend support to the functionalities that they provide.

For details, visit: <http://www.intellicus.com/acknowledgements.htm>

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1 Introduction

Intellicus 18.x release introduced major functional changes in the product. However, Intellicus ensures that all reports and query objects you have designed in your earlier versions are fully supported in Intellicus 18.x to maintain backward compatibility. To know the features and capabilities that have been upgraded or added in the Intellicus 18.x, please read the Intellicus release notes from Intellicus website. This document will guide you to upgrade any older version of Intellicus to the newer version.

You must have administrator privileges on the machine on which Intellicus is being upgraded. You may need to refer the respective installation guides at various stages of the upgrade process.

Key Points to consider

- Please note that you have free access to the latest GA versions of Intellicus for upgrade, if you have purchased valid Intellicus technical support annual maintenance contract.
- You will have to test all your Reports, Dashboards, Schedules, export formats, Analytical Objects (cubes) etc. as part of your Intellicus upgrade plan. We recommend performing one round of upgrade rehearsal in a test environment before deploying the portal in the production environment.
- The newer versions of Intellicus will have enhanced UI, functions and capabilities. These features will reflect in your Reports, Dashboards, and Query Objects etc. in the newer version. The Intellicus objects in the newer version may not match exactly with the objects in your current version. We recommend validating all these objects in the newer version as part of testing.
- If you have customized or white-labeled your current version of Intellicus, you need to reapply those changes in the newer version of Intellicus.

2 Intellicus Upgrade Process

To get the reports and QO metadata in the new version of Intellicus, the upgrade process can be performed in 2 ways.

1. Upgrade by pointing to previous versions' Intellicus repository database
2. Upgrade using iPackager (CAB)

Upgrade by pointing to previous version's Intellicus repository database

1. Backup previous version of Intellicus
2. Un-install previous version of Intellicus
3. Install new version of Intellicus
4. If you have applied customizations in your previous version, you will have to replicate them in the new version.
5. If you have white labeled your previous Intellicus version, you will have to redo the same for the new version.
6. Restore previous version files like templates, configuration etc. (if applicable)
7. Start new version of Intellicus
8. Point to previous version's Intellicus repository database
9. Restart Intellicus service

Note: The uninstall process retains few files and folders in Intellicus and does not delete them unless manually deleted. As we would already be taking the backup of previous version, you can delete these files.

Note: As a best practice, we recommend you create backup of Repository Objects (includes any metadata in your previous Intellicus version) using iPackager ((by creating CAB), even in case you are using the 'pointing to repository database' upgrade method.

Upgrade using iPackager (CAB)

1. Backup Intellicus files and folders
2. Create cab file from old Intellicus using iPackager
3. Uninstall previous version of Intellicus
4. Install new version of Intellicus on the machine
5. If you have applied customizations in your previous version, you will have to replicate them in the new version.
6. If you have white labeled your previous Intellicus version, you will have to redo the same for the new version.
7. Merge and upgrade the configuration files, templates etc.
8. Start new version of Intellicus
9. Deploy the objects on new Intellicus using CAB deployer
10. Restart Intellicus service

This process may not bring some objects to new system. They are: i) Saved reports, ii) Logs, iii) Audit data.

3 Backup files

You must take full backup of Intellicus installation folder and of the Intellicus repository database before starting the upgrade process. Intellicus repository database stores metadata of all the reports, query objects and other user preference information.

System Files

Let us look at some of the system files that may help with the backup during the upgrade process.

License

Intellicus license file is located at:

<installation folder>\Intellicus\ReportEngine\bin\

When you upgrade to the new major version, it is mandatory to upgrade your license too. You may need to send your old license to the Intellicus sales representative to request for a new upgraded license file. You also need to renew Intellicus product support contract in case it is expired.

Connection Configurations

Intellicus connection configurations file Encr_ReportEngine.dat is placed at:

<installation folder>\Intellicus\ReportEngine\Config\

This file needs to be backed up for report server to connect to all the databases that were configured earlier.

Resource Bundles File

ENGINE - REPORT OUTPUT

Purpose: This is the resource bundler file that contains entries on what the report output should display in a specific language

Path: <installation folder>\Intellicus\ReportEngine\resourcebundles\en_US.xls

PORTAL UI

Purpose: This is the resource bundler file that contains entries on what the portal should display in a specific language

Path: <installation folder>\Intellicus\Jakarta\webapps\intellicus\client\lang\en_US.xls

You need to backup any other bundler file, if exists.

Report Engine Property File

Purpose: Stores Report Engine boot up configurations

Path: <installationfolder>\Intellicus\ReportEngine\config\ReportEngine.properties

Method: Take a backup of previous version report engine properties. Installing new Intellicus overwrites this file.

Post-installation; merge the property values which you have specifically changed in your installation.

Report Client Property File

Purpose: Stores Report Client (web application) configurations

Path: <installationfolder>\Intellicus\Jakarta\webapps\intellicus\client\config\ReportClient.properties

Method: Take a backup of previous version report client properties. Installing new Intellicus overwrites this file.

Post-installation; merge the property values which you have specifically changed in your installation.

Configuration Files

The following files should be backed up. Using these backed up files you can re-configure application behavior of respective areas.

EXTENDED INPUT VALIDATION CONFIGURATION

Purpose: Extended input validation prevents "SQL Injection" as well as expands scope of user input validation. Backup these files if you have customized this file

Path: <installation folder>\Intellicus\ReportEngine\config

File: exin_validations.xls

FORMATTING

Purpose: Backup these files if you have customized this file in case of any date formatting changes

Path: <installation folder>\Intellicus\ReportEngine\config

File: formatmapping.xls

DATABASE MAPPING

Purpose: To map date and time fields in Intellicus with their respective database fields

Path: <installation folder>\Intellicus\ReportEngine\config

File: databasemapping.xls

Other Folders and Files

The following folders and files should be backed up for any case of recovery. Each folder location and purpose of the files is mentioned below.

RPG

Purpose: Retains all published reports

Path: <installation folder>\Intellicus\ReportEngine\rpg

DATA

Purpose: Retains H2 database content. In case repository is set to HSQLDB or H2, then this folder contains all your repository content including reports and query object definitions

Path: <installation folder>\Intellicus\ReportEngine\data

CUBEDATA

Purpose: Retains built cube data

Path: <installation folder>\Intellicus\ReportEngine\cubedata

We recommend rebuilding all cubes in the new version.

MAILS

Purpose: Stores mailer templates for system-generated emails

Path: <installation folder>\Intellicus\ReportEngine\Config\messages\mails

TEMPLATES

Purpose: Stores the template files for ad hoc reports

Path: <installation folder>\Intellicus\ReportEngine\templates

Integration.xml

Purpose: integration.xml contains user synchronization specific configurations in case Intellicus is embedded in your application. In this case, you need to update/replace the same file in newer version of Intellicus.

Path: <installationfolder>\Intellicus\Jakarta\webapps\intellicus\Web-INF\integration.xml

web.xml

Purpose: In case, Intellicus client is part of your application deployed on the same server, you will need to merge new entries of Intellicus in your web.xml file

Path: <installationfolder>\Intellicus\Jakarta\webapps\intellicus\Web-INF\web.xml

4 Backup files using iPackager (CAB)

iPackager is a utility to package repository objects, users' preferences and configuration settings from Intellicus repository or local file system. This packaged information can then be deployed at any of the installation of Intellicus.

This way, you can use iPackager to setup and maintain Intellicus repository from remote location.

When Intellicus is deployed at multiple locations, iPackager helps save a lot of efforts spent to set up Intellicus repository at each of the locations. Set it up at one location and just upload the package at other locations. This method eliminates the need of re-doing all the configuration activities at multiple locations.

How to access iPackager

You can launch iPackager from the Intellicus Portal as shown below.

To open iPackager, click Navigate > Repository > iPackager.

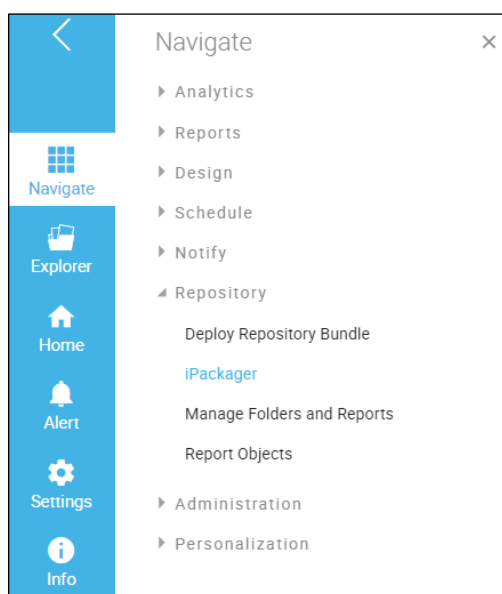


Figure 1: Menu option to open iPackager from Intellicus portal

Application Window

Top of the application window has menus. Remaining part of the screen is divided in three panes: Entity Type, Select Entities and Selection Summary.

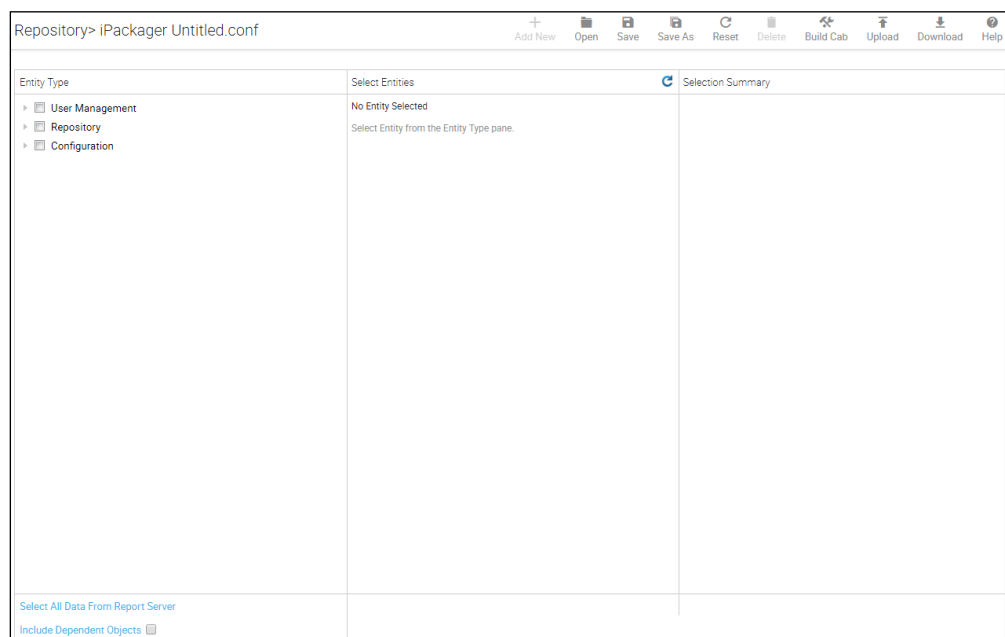


Figure 2: iPackager home screen

- **Entity Type:** This is the list of all repository objects available on Intellicus Report Server.
- **Select Entities:** This is the list of entities selected for creating the configuration file.
- **Selection Summary:** This is the area where you can view the summarized details of your selected objects.

Adding objects to the Configuration file

The CAB file that you create for restoring objects in the new version, we also call it as a configuration file. Information can be added in a configuration file in the following way. We recommend you keep saving your work in the configuration file.

Under Entity Type, expand Repository, Users and Configuration upon clicking the adjacent arrow keys. You can now click the sub-items like Reports, Query Objects, Parameter Objects, Analytical Objects, Dashboards, Dashboard Widgets, etc. to view the list of objects in the Select Entities pane.

Make your required choices in the User Management and Repository categories. The objects under these categories are your user preferences settings, and report and design related operations that you performed.

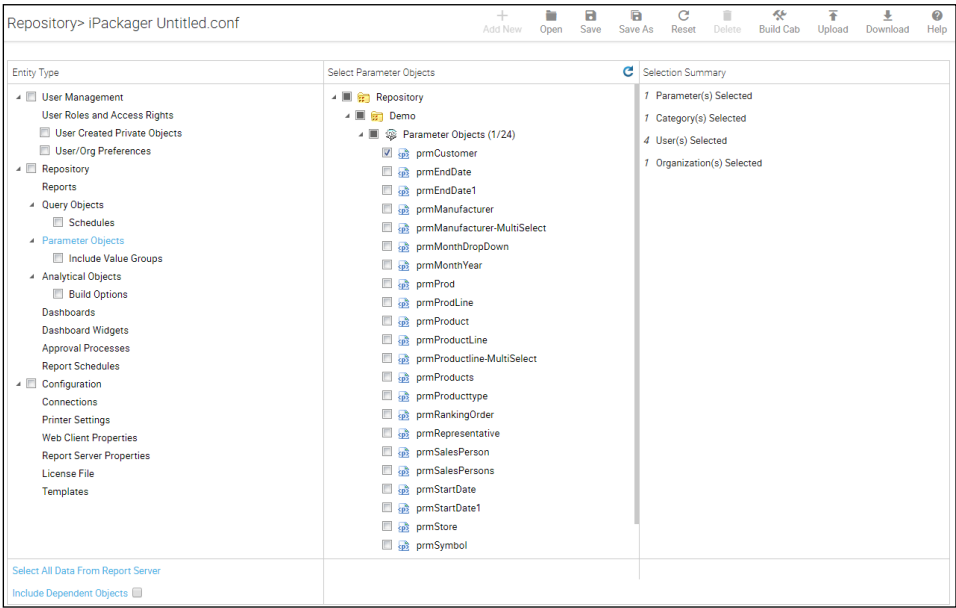


Figure 3: Adding objects to configuration file

Under Select entities, you can then either select the parent (say Category) to select all objects under it or individually select the objects you wish to add to the configuration file.

The Selection Summary pane enables you to view the number of all the selected objects.

Clicking “Select All Data From Report Server” would enable to select all the objects from Intellicus repository.

Click “Include Dependent Objects” checkbox to package referenced/dependent objects at the time of creating a cab file. For example, for a selected Dashboard object, you can build a cab using all the objects associated to that dashboard.

Once you have selected the required objects under User Management and Repository categories, expand the arrow of the Configuration category.

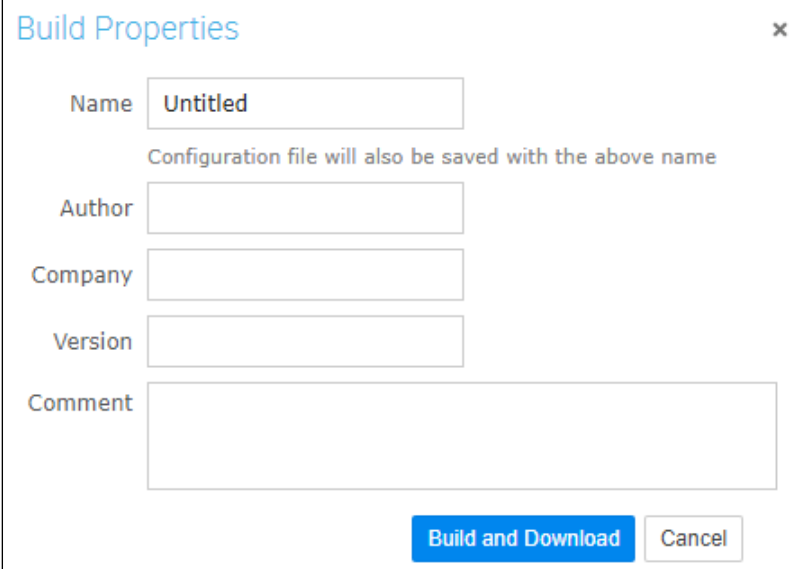
In the Configuration category, you will find many sub categories, however, in the upgrade process you only need to select the Connections sub category. Skip selecting any other entity under Configuration category under Entity Type pane. The remaining configuration files needs to be merged manually.

Once you select Connections, you will see the entities stored in it in the Select Entity pane, in here check the Configuration box so as all your connections are selected.

Building the Cab file

When you issue a command to build the cab file, all the information that you stored in the open configuration file is picked up from the respective locations.

If any of the information saved in configuration file is not available at the right source while building the cab, then respective error message will be given, and the cab building process will be stopped.



Build Properties [X]

Name

Configuration file will also be saved with the above name

Author

Company

Version

Comment

Build and Download Cancel

Figure 4: Building the Cab file

To build the cab,

1. Click “Build Cab”. The **Build Properties** screen appears.
2. Specify build properties like Name of the cab, along with its Author, Company, Version and any additional information under Comment.
The configuration file gets saved with the same name as the Cab file if not saved earlier.
If the configuration file already exists on the Web Server with the same name, the user is prompted with a message to overwrite or not.
3. Click the “Build and Download” button.
4. The cab building process starts.
5. The cab file gets saved under the browser’s default download folder location.

Error Cases

A cab is built only when all the objects added in an open configuration file are available on the Report Server at the time of building the cab.

When the configuration file is opened, iPackager validates the information stored in the configuration file with respective server. If any of the information stored in configuration file is not found on server, the entry (including parent entries) is highlighted in red. In addition to this, if any of the following conditions exist, red highlight would appear.

- Source report for a linked report is not found.
- Task for a job is not found.
- Report for a task is not found.
- Any object added but not found in the server at the time of opening a configuration file or building the cab file.
- Invalid characters used in object names.

Valid and Invalid characters for filenames

Valid characters for filename: 0-9, a-z, A-Z, "-", "_", "@", "."

All the above can be one word or multiple words.

Configuration file having invalid filename is prompted with a warning message stating that the file cannot be saved.

5 Uninstalling Intellicus

Windows:

Below are the steps to un-install Intellicus on Windows platform.

To stop Intellicus Report Server and Web Server

To stop report services, click Start > All apps > Intellicus > Service Manager and stop Intellicus Report Server and Web Server services. This will stop Report Server and Web Server.

Alternately, to stop Intellicus Report Server and Web Server from shortcuts, click Start > All apps > Intellicus and then click the respective shortcut.

Note: Stop all the other applications which are using Intellicus.

Uninstall Intellicus

Steps to uninstall Intellicus are provided in InstallingIntellicusOnWindows.pdf.

This file is placed at path:

<installation folder>\Intellicus\docs\Manuals\

Folders:

- **Intellicus\Jakarta** folder contains old compiled class files and old tomcat server. If this folder is not removed, Intellicus may continue using old files and give un-expected results or errors.

Delete **Intellicus\Jakarta** folder.

Path of this folder is: <installation folder>\Intellicus\

- **Intellicus\jre** folder contains java runtime. If this folder is not removed, Intellicus may continue using old files to give un-expected results or errors.

Delete **Intellicus\jre** folder, if exists.

Path of this folder is: <installation folder>\Intellicus\

- **Intellicus\ReportEngine** folder contains old log files and other property files. If this folder is not removed, Intellicus may give un-expected results or errors.

Delete **Intellicus\ReportEngine** folder.

Path of this folder is: <installation folder>\Intellicus\

- **Intellicus\Studio** folder contains old log files and other property files. If this folder is not removed, Intellicus may give un-expected results or errors.

Delete **Intellicus\Studio** folder.

Path of this folder is: <installation folder>\Intellicus\

Linux / Solaris:

Below are the steps to un-install Intellicus on Linux / Solaris.

To stop Intellicus Report Server

Run the file shutdown.sh. This file is available in Intellicus/reportengine/bin folder.

```
./shutdown.sh
```

To stop Intellicus Web Server

Run the file shutdown.sh. This file is available in Intellicus/jakarta/bin folder.

```
./shutdown.sh
```

After stopping the report server and web server, remove Intellicus folder.

Please refer InstallingIntellicusOnLinux.pdf and InstallingIntellicusOnSolaris.pdf for more information.

These help documents are placed at: <installation folder>/Intellicus/docs/Manuals/

6 Installing Intellicus 18.x

Steps to install Intellicus are provided in the following documents.

Windows:

InstallingIntellicusOnWindows.pdf

This file is placed at path:

<installation folder>\Intellicus\docs\Manuals\

Linux:

InstallingIntellicusOnLinux.pdf

This file is placed at path:

<installation folder>\Intellicus\docs\Manuals\

Solaris:

InstallingIntellicusOnSolaris.pdf

This file is placed at path:

<installation folder>\Intellicus\docs\Manuals\

Note: Restart the machine after installation is complete.

7 Customizations and White Labelling

In case you have applied any customizations to your previous version of Intellicus, you need to reapply those customizations in the newer version.

In case Intellicus was white labelled or rebranded (logo change, theme changes, End User License agreement change, login page change etc.), same changes must be done in newer version of Intellicus.

8 Restoring previous version configurations

After installing Intellicus 18.x, you need to perform certain steps to re-apply old Intellicus custom configurations.

Note: Please stop Intellicus Report Server or Intellicus Portal before restoring the configuration.

Replace the contents of “data” folder

Place the backed-up contents of “data” folder at path:

Windows:

<installation folder>\Intellicus\ReportEngine\

Linux / Solaris:

<installation folder>/Intellicus/reportengine/

Note: Replace the “data” folder only if one of the data connection points to H2 based DemoRepositoryDB.

Replace the modified template files

Place the backed-up contents of template files at path:

Windows:

<installation folder>\Intellicus\ReportEngine\templates\

Linux / Solaris:

<installation folder>/Intellicus/reportengine/templates/

Note: You need to replace these files only if the templates have been modified/ customized.
Ensure you use Intellicus 18.x license after restorations are done.

Restoring resource bundles

Merge and replace the resource bundles folder at following location:

Windows:

This folder is placed at path:

<installation folder>\Intellicus\ReportEngine\

Linux / Solaris:

This folder is placed at path:

<installation folder>/Intellicus/reportengine/config/

Restoring en_US.xls

If you have modified “en_US.xls” language bundler file, then you need to merge those changes in latest language bundler file present at path:

Windows:

<installation folder>\Intellicus\Jakarta\webapps\intellicus\client\lang

Linux / Solaris:

<installation folder>/Intellicus/jakarta/webapps/intellicus/client/lang

Note: Restore and merge all other bundler files present at the above location in case you have created custom bundler files.

The below table lists the restoration files used in Intellicus:

Configuration/File	Type of Restoration
Encr_ReportEngine.dat	Restore old file
RPG folder	Restore old folder
Data folder	Restore old folder
Cubedata folder	Restore old folder
Mails	Restore old folder
Template files	Merge custom changes into newly installed templates
Resource bundler files	Merge custom changes into newly installed bundler files
Localeconfiguration.xls	Merge custom changes into newly installed locale configuration file
ReportEngine.properties	Merge custom changes into newly installed report engine properties file
run.bat/run.sh	Merge the files into new version
CategoryPropertiesInfo.xml	Successful installation of Intellicus ensures that the newly installed file prevails
QOPropertiesInfo.xml	Successful installation of Intellicus ensures that the newly installed file prevails
ReportPropertiesInfo.xml	Successful installation of Intellicus ensures that the newly installed file prevails
exin_validations.xls	Merge custom changes into newly installed validations file

FormatMapping.xls	Merge custom changes into newly installed format mapping file
databasemapping.xls	Merge custom changes into newly installed database mapping file
ReportClient.properties	Merge custom changes into newly installed report client properties file
integration.xml	<p>(if you have embedded Intellicus in your application)</p> <p>Replace or update in newer version of Intellicus.</p>

9 Starting Intellicus 18.x

Windows:

To start report services, go to the Service Manager and start Intellicus Report Server and Web Server services. This will start Report Server and Web Server.

To start Intellicus Report Server and Web Server from shortcuts, click Start > All apps > Intellicus and then click the respective shortcut.

Linux / Solaris:

To Start Intellicus Report Server

Intellicus Report Server is in the `/Intellicus/reportengine/bin` folder. To start the Report Server, run the file `run.sh`.

```
./run.sh
```

To Start Intellicus Web Server

Intellicus Web server is in the `/Intellicus/jakarta/bin` folder. To start the Intellicus Web server, run the file `startup.sh`.

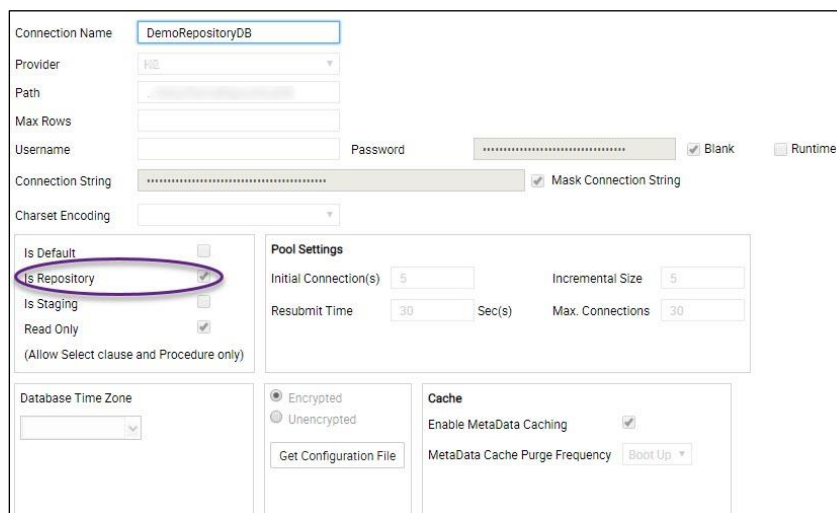
```
./startup.sh
```

10 Point to previous version's Intellicus repository database

To upgrade using this method, you need to create a database connection to the same repository database as in the previous version of Intellicus.

Click Navigate > Administration > Configure > Databases

Add a new connection that points to the same repository database as in your previous version. Make sure to check the 'Is Repository' check box after providing the required credentials.



The screenshot shows the 'Databases' configuration window in Intellicus. The 'Connection Name' is 'DemoRepositoryDB'. The 'Provider' is 'H2'. The 'Path' is empty. The 'Max Rows' is empty. The 'Username' is empty, and the 'Password' is masked with asterisks. The 'Blank' checkbox is checked, and the 'Runtime' checkbox is unchecked. The 'Connection String' is masked with asterisks, and the 'Mask Connection String' checkbox is checked. The 'Charset Encoding' is empty. The 'Is Default' checkbox is unchecked. The 'Is Repository' checkbox is checked and highlighted with a red circle. The 'Is Staging' checkbox is unchecked. The 'Read Only' checkbox is checked. The 'Database Time Zone' is empty. The 'Pool Settings' section shows 'Initial Connection(s)' as 5, 'Incremental Size' as 5, 'Resubmit Time' as 30, and 'Max. Connections' as 30. The 'Cache' section shows 'Enable MetaData Caching' as checked and 'MetaData Cache Purge Frequency' as 'Boot Up'.

Figure 5: Pointing to Repository Database

Once you have successfully made the connection, restart Intellicus service.

11 Deploy the CAB file on new version of Intellicus

To deploy the CAB file,

Click Navigate > Repository > Deploy Repository Bundle

The following page will open –

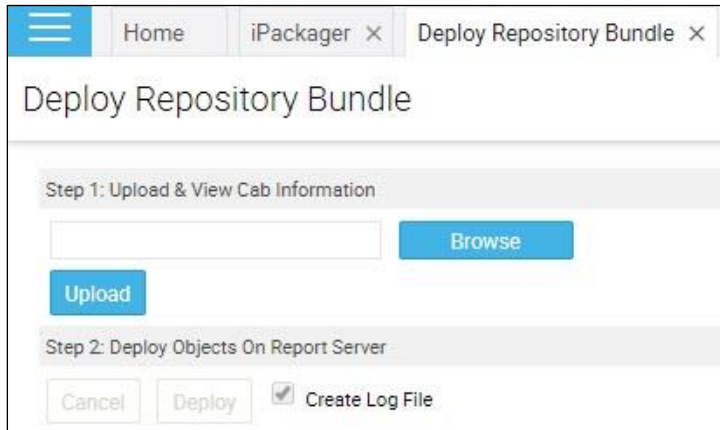
The screenshot shows a web application window titled 'Deploy Repository Bundle'. The window has a navigation bar at the top with a menu icon, 'Home', 'iPackager', and 'Deploy Repository Bundle'. The main content area is divided into two steps. 'Step 1: Upload & View Cab Information' contains a text input field, a 'Browse' button, and an 'Upload' button. 'Step 2: Deploy Objects On Report Server' contains a 'Cancel' button, a 'Deploy' button, and a checked checkbox labeled 'Create Log File'.

Figure 6: Deploying the CAB file

Here, Upload the CAB that you created in Step 3. Upon uploading, it will display the list of objects you had selected in the previous version of Intellicus.

Make your required selections and click *Deploy*.

Once you have successfully deployed the CAB, restart Intellicus service once.

12 Post Upgrade Checklist

After both the report server and web server have started, carry out some checks to ensure that Intellicus has been successfully upgraded to 18.x.

Check for users

Check by login process or from Navigate > Administration > Manage Users that:

Intellicus has retained and migrated all the user details - user logins, access rights, privileges and single sign on mapping information.

Check for report layouts

Check by navigating Explorer or from Navigate > Repository > Manage Categories and Reports that:

Intellicus has imported all the report layouts (report layouts along with categories).

Check for saved reports and report objects (Query Objects, Parameter Objects and Analytical Objects)

Check by navigating Explorer that:

Intellicus has retained all the saved reports and report objects.

Check for database connections

Check from Navigate > Administration > Configure Databases that:

Intellicus has retained all the previously created database connections.

Check for schedules

Check from Navigate > Schedule > Jobs that:

Intellicus has imported all the saved schedules.