

IBM OpenPages with Watson
Version 8.2.0.1

Reg-Track Upgrade ReadMe



NOTE

Before using this information and the product it supports, read the information in the "Notices" section of this document.

Product Information

This document applies to IBM OpenPages with Watson 8.2.0.1 and may also apply to subsequent releases.

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Documentation Release Information

Last Modified: December 3, 2020 15:12:58 PM

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RCM 8.2.0.1 Reg-Track Upgrade Cookbook

Introduction

The RCM 8.2.0.1 Reg-Track feature has two parts

- **Reg-Track Regulatory Events Import:** This new feature enables clients to import Regulatory Events from Reg-Track into OpenPages. The import creates RegTrackRegEvents for the incoming regulatory events.
- **Reg-Track Regulatory Events rules and workflows:** New out-of-the-box rules and workflows are included. These workflows and rules provide a simple set of workflows for incoming Regulatory Events from the Reg-Track feed.

Prerequisites

Reg-Track provides a subscription service, which is sold separately from OpenPages. Customers must have a subscription and meet its prerequisites before they set up the Reg-Track feature in OpenPages. For example, customers must know the API connection information for the Reg-Track JSON feeds.

Determining an upgrade strategy

This cookbook assumes that you are familiar with developing and deploying OpenPages solutions and that you know how to use the related technologies, such as ObjectManager, XML, and server access.

This cookbook combines a number of loader steps and manual procedures. It's up to the Services team to determine what steps need to be done in a client engagement. **For a customer engagement, it is likely that you'll refactor the loader XML files into your own deliverable package** to simplify the manual steps and to work around any differences due to a client's customizations.

Please note that the automated scripts and manual instructions set the ObjectManager setting, `configuration.manager.vendor.mode = true`, which will override any changes you may have made to existing profiles, views, etc in the package. If you do not want this, please refactor the loader XML files to suit your needs.

In general, clients can choose to load only some of the following RCM 8.2.0.1 capabilities or all of them. In some cases, a client's existing solutions might not work with the new RCM solution's dependencies. You'll need to perform remediation on a case-by-case basis.

Reg-Track import

With this feature, clients can retrieve data from a Reg-Track *feed* by using the API configuration that is provided to each client when they purchase a subscription. The feature is hard coded to create RegTrackRegEvent and RegTrackRegSeries objects for incoming regulatory events. These object types have a required set of non-configurable fields. Clients can add additional fields, however. For example, clients can add fields for their own taxonomies.

For this feature to work end-to-end, you must set up OpenPages with:

- Schema
 - The new RegTrackRegEvent object type
 - Field groups
 - CSV fileType and the association of fileType to SysXMLDocument
- Relationships
- Registry settings

- Profiles that include the new object type, field groups, and fields
- System views for the new and updated object types
- Role templates that include permissions for the new object type
- A default business entity structure

Notice: Unlike solutions updates that you've done in the past, due to the technical and legal specifics for the Reg-Track data feed import, many of the schema elements that are required for this feature **are not configurable**. The fields, object types, and certain other settings are mandatory and cannot be configured to other values.

Reg-Track workflows and rules

Rules are used by the Reg-Track import to perform some operations automatically when the rule criteria are met. (For example, a rule can start a workflow or send a notification.) Rules are configured through a new page in the Task Focused UI. OpenPages provides out-of-the-box rules for RegTrackRegEvents.

The Reg-Track import feature does not require the out-of-the-box rules or workflows. However, the end-to-end RCM solution expects that the Reg-Track data will feed the workflows that the customer defines.

Loading the Reg-Track object types in 8.2.0.1

The 8.2.0.1 loader files are not on the installation media. The OpenPages Support team can give clients access to a package that contains the 8.2.0.1 loader files.

All the changes for Reg-Track in 8.2.01 are documented in later sections in this cookbook. To simplify the update and to save time, we've provided a shell script that loads all the files. You can choose to load the changes automatically or manually select the changes as appropriate for your client's environment.

You can load the files remotely using the ObjectManager client or, for non-Cloud Pak for Data environments, load the files from the application server.

Loading files remotely

As of 8.2.0.1, you can now import the loader files remotely by using the ObjectManager client tool, which you download separately. For instructions on how to install the ObjectManager client tool, see the *Administrator's Guide*:

https://www.ibm.com/support/knowledgecenter/SSFUEU_8.2.0/op_grc_admin/t_remote_utils.html.

To load the feed loader files remotely, you must:

1. Download the package and expand it to your local machine. In this document, the directory where you expanded the package is called FEED_FOLDER_LOCATION.
2. Set up the environment variable, OPC_BIN_DIR, to point to the /openpages-tools-client/bin directory.
3. Set the URL of the remote server in openpages-tools-client.properties:
rest.url.path=https://<host:port>/grc/api.

Note: To set up the feed on IBM OpenPages for IBM Cloud Pak for Data, you must use the ObjectManager client remotely.

Loading files from the application server

To set up the feed from the application server, you must download the package and expand the package contents to your application server at the location: PATH_IN_OP_SERVER/Upgrade-Accelerators/RCM, later referred to as the FEED_FOLDER_LOCATION.

Loading Reg-Track object changes automatically

Go to the location where you copied the Reg-Track package on the application server.

Follow these steps:

1. Go to your FEED_FOLDER_LOCATION.
2. Do one of the following steps:
 - o If running from a Linux system:
 - Run: `chmod +x Run_RCM_RegTrack_full.sh`
 - `./Run_RCM_RegTrack_full.sh OpenPagesAdministrator PASSWORD`
 - o If running on a Microsoft Windows system:
 - Set the `ObjectManager.properties` flags
`configuration.manager.vendor.mode = true`
`configuration.manager.force.update.object.strings=true`
`configuration.manager.force.update.application.strings=true`
 - Edit the `./Run_RCM_RegTrack_full.bat` file and make the following changes
 - Change the script on line 33 to...


```
call ObjectManager b c %1 %2
%currentPath%\RCM_RegTrack_8201_Loader_Files
%currentPath%\RCM_RegTrack_8201_Loader_Files\RCM_RegTrack_8201_loader.txt
```
 - Change the script on line 39 and 40 to...


```
call ObjectManager l c %1 %2
%currentPath%\RCM_RegTrack_8201_Loader_Files\View
RCM_RegTrack_dashboard_views
```
 - Change the script on line 43 to...


```
call ObjectManager l c %1 %2
%currentPath%\RCM_RegTrack_8201_Loader_Files\View
RCM_RegTrack_dashboard_view_string_keys
```
 - Change the script on line 43 to...


```
call ObjectManager l c %1 %2
%currentPath%\RCM_RegTrack_8201_Loader_Files\Schema
RCM_8201_master-profile
```
 - Run: `./Run_RCM_RegTrack_full.bat OpenPagesAdministrator PASSWORD`
 - Reset the `ObjectManager.properties` flags back to false
`configuration.manager.vendor.mode = false`
`configuration.manager.force.update.object.strings=false`
`configuration.manager.force.update.application.strings=false`

Loading Reg-Track object changes manually

In this section, we go over all the commands that are run and explain the changes. You can run the commands in this section instead of using the shell or batch script.

Before running any of the commands below, set the following flag in the `ObjectManager.properties` file to true

```
configuration.manager.vendor.mode = true
configuration.manager.force.update.object.strings=true
configuration.manager.force.update.application.strings=true
```

Loading the RegTrackRegEvent object type schema and its labels

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_object_schema
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Text/
RegTrack_object_schema_strings_en_US
```

The schema in these files is referenced from the code and *cannot* be modified or renamed. Clients can only rename the labels or add additional fields to these objects. The schema contains the following field groups:

- RCM-RegTrack-RegEv Contains the main fields for the RegTrackRegEvent object type.
- RCM-RegTrack-RegEv-Summary Contains additional fields for the RegTrackRegEvent object Type
- RCM-RegTrack-Taxonomy Contains the taxonomy fields for RegTrackRegEvent.
- RCM-RegTrack-RegSeries Contains the fields for the RegTrackRegSeries object type.

A query is also included in this file, My Reg-Track Regulatory Events. This query filters RegTrackRegEvent objects that are owned or assigned to the current logged in user. This query is used in the dashboard.

Loading registry settings

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Registry/
RegTrack_registry_entries
```

This file creates all the registry settings that are required to configure the loading of RegTrackRegEvent objects from the feed. These values cannot be customized. The RegTrackRegEvent object type must already exist before you load this file.

Loading permissions

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Registry/
RegTrack_permissions
```

The Reg-Track feed can be configured from the RegTrackRegEvent grid page. To see the gear icon on the top of the grid, users must have this application permission.

Load the base required relationships for Reg-Track import

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_object_relationships
```

(Optional) Load the extended relationships for the Reg-Track object types. This is not required by the Reg-Track Import feature, but it is required for the Regulatory Library and RCM workflows.

Note: You might need to do some manual rework before you load this file. Pre-8.1 out-of-the-box solutions have an incompatible object model to this loader. Pre-8.1, the RegChange and RegTask object types were an ancestor or parent of other objects: Policy, Procedure, Control. This would result in a loop. You must disable these relationships before loading this file, if they exist.

Example: For a customer with the 7.4 OOB solutions schema, you need to disable the following object associations manually: RegTask -> Policy association, Policy -> Requirement, Procedure -> Requirement, and Control -> Mandate / SubMandate / Requirement. If you do not, you will see errors like this:

```
Loader EXCEPTION (Line: 37 Column: 38): An unexpected exception occurred.
Please see ObjectManager.log for details.
Error Message: OP-06028: Hierarchy structure rule of relation type "1" between
object types "141" and "105" for the hierarchy type "1" creates a loop.
Indicator if rule is supported is "1". [T94KCZ000HRN]
```

Warning If you see the above error, then you won't be able to load the new relationships even after you disable the object associations. This is a known issue that is being investigated. To work-around the issue, you might need to manually drop "orphaned" tables from the reporting schema in order to reset the database to a clean state.

Loading other strings

These strings are used by the Reg-Track import. The strings include email templates, dashboard, and UI text strings.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Text/ Other_strings
```

Loading the Reg-Track taxonomy mapping

Before loading the taxonomy mapping file, you need to add the text/csv file type to OpenPages and make sure that it's added to the file upload content types.

You can load the following file to do so:

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RCM_RegTrack_file_type
```

This file loads the default mapping file.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_taxonomy_map
```

Loading Reg-Track entities

These files create the default business entity hierarchy for Reg-Track imported data. The Reg-Track import expects the following business entity paths to exist so that it can create objects underneath them: BusinessEntity/Library/RCM/RegEvents/RegTrackRegEvents for regulatory events and BusinessEntity/Library/RCM/RegLibrary/RegTrackRegLibrary for regulatory library objects.

Note: For a loader file that contains these entity resources for fresh installs, see the following files RCM_RegTrack_8201_Loader_Files/Schema/RegTrack_parent_entity-op-config.xml, RCM_RegTrack_8201_Loader_Files/Schema/RegTrack_reg_library_entity-op-config.xml

Here are the commands to load the files:

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_parent_entity
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_reg_library_entity
```


Loading RegTrackRegEvent system views

This file includes grid and task views for the RegTrackRegEvent and RegTrackRegSeries object types. The file also adds a default creation view, although creation is disabled by default for RegTrackRegEvent.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-RegTrackRegEvent
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-app-string-keys-
RegTrackRegEvent
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-RegTrackRegSeries
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-app-string-keys-
RegTrackRegSeries
```

Loading the new RegChange system view for Reg-Track regulatory events

This file includes the new RegChange view that's used with the RegTrackRegEvent object. The view is also used in the workflows.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-RegChange
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-app-string-keys-
RegChange
```

Loading the new Mandate system view for the Reg-Track library objects

This file includes the new Mandate view that's used for the Reg-Track Regulatory Library.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-Mandate
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-app-string-keys-
Mandate
```

Loading the new SubMandate system view for Reg-Track library objects

This file includes the new SubMandate view that's used for the Reg-Track Regulatory Library.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-Submandate
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-app-string-keys-
Submandate
```

Loading the new Requirement system view for Reg-Track library objects

This file includes the new Requirement view that's used for the Reg-Track Regulatory Library.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-Requirement
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View/ sv-app-string-keys-
Requirement
```

Loading workflows and rules

Load this file after you have loaded the new system views for the RegTrackRegEvent and RegChange object types.

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_rules_workflows
```

Loading role templates

After you load the Reg-Track Feed permission, you need to associate it to a role template in order to use it in the application.

In Role Templates, include the RegTrackRegEvent and RegTrackRegSeries objects in the role templates for users who will interact with the Reg-Track data.

Also, for those users who will configure and import the Reg-Track feed, add
`<roleApplicationPermission name="All/SOX/Administration/RegTrack Feed"/>`

Customize this file based on the client's role templates. The sample file that's included with the fresh install can be found

here: RCM_RegTrack_8201_Loader_Files/Schema/RegTrack_roleTemplates-op-config.xml

The command to load the file is:

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RegTrack_roleTemplates
```

Reg-Track Task Focused UI dashboard

For the Task Focused UI dashboards, you might want to include the My Reg-Track RegEvents filter as a widget in your RCM users' default dashboard.

For example, see the loader file that contains the RCM Dashboard for fresh install. It's here: RCM_RegTrack_8201_Loader_Files/View/RCM_RegTrack_dashboard_views-op-config.xml

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View
RCM_RegTrack_dashboard_views
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/View
RCM_RegTrack_dashboard_view_string_keys
```

(Optional) Load the updated solution object model for Reg-Track

This is not required by the Reg-Track Import feature to run. It is used for display purposes to show the Reg-Track Reg Series and Reg-Track Reg Event objects and their associations within the RCM object model

```
./ObjectManager.sh l c OpenPagesAdministrator <password>
FEED_FOLDER_LOCATION/RCM_RegTrack_8201_Loader_Files/Schema/
RCM_RegTrack_solution_object_types
```

Change the following flags in the ObjectManager.properties file back to false

```
configuration.manager.vendor.mode = false
configuration.manager.force.update.object.strings=false
configuration.manager.force.update.application.strings=false
```

Updating OpenPages profiles with Reg-Track objects

In the following sections, we'll walk through the profile configuration and customization for the RegTrackRegEvent and RegTrackRegSeries objects.

Loading the entire RCM profile automatically

The changes for the RegTrackRegEvent and RegTrackRegSeries objects should also be applied to the client's specific profile. For example, the RCM profile file in RCM_RegTrack_8201_Loader_Files/Schema/RCM_8201_master-profile-op-config.xml contains the default RCM profile that's included in the fresh install with all the above changes. You can load that profile completely by using this command:

```
./ObjectManager.sh b c OpenPagesAdministrator <password>
PATH_IN_OP_SERVER/RCM_RegTrack_8201_Loader_Files/Schema/ RCM_8201_master-
profile-op-config.xml
```

Loading the Reg-Track profile manually

1. In the Standard UI, include the RegTrackRegEvent object type in the profiles of users who need to see these objects.
 - o After you include the new types in the profile, ensure that the **Navigational Views > Filtered List** view is enabled. Also ensure that the **Object Views > Detail** view is the default view.
 - o Update the display type and read-only properties for the included fields on RegTrackRegEvent:

Field	Display Type	Read Only
System Fields: Name	Text	False
System Fields: Description	Text Area	False
System Fields: Location	Text	True
System Fields: Creation Date	Date	True
System Fields: Created By	Integer	True
System Fields: Last Modification Date	Date	True
System Fields: Last Modified By	Integer	True
RCM-RegTrack-RegEv-Summary: Content	On Demand Rich Text	True
RCM-RegTrack-RegEv-Summary: Update	Rich Text	True
RCM-RegTrack-RegEv: Analysis	Text Area	True
RCM-RegTrack-RegEv: Applicability	List	True
RCM-RegTrack-RegEv: Assignees	Multi Valued User Selector	False
RCM-RegTrack-RegEv: Change Type	List	True
RCM-RegTrack-RegEv: Comments	Text Area	True
RCM-RegTrack-RegEv: EffectiveDate	Date	True

Field	Display Type	Read Only
RCM-RegTrack-RegEv: External Link	Rich Text	True
RCM-RegTrack-RegEv: IntroductionLine	Rich Text	True
RCM-RegTrack-RegEv: LastUpdateDate	Date	True
RCM-RegTrack-RegEv: LinkToRuleId	Text	True
RCM-RegTrack-RegEv: Owner	User Selector	False
RCM-RegTrack-RegEv: Reference	Text Area	True
RCM-RegTrack-RegEv: RegTrack Link	Text Area	True
RCM-RegTrack-RegEv: ReportId	Text	True
RCM-RegTrack-RegEv: ReportIssue	Date	True
RCM-RegTrack-RegEv: ReportSection	Text	True
RCM-RegTrack-RegEv: RuleDate	Date	True
RCM-RegTrack-RegEv: RuleId	Integer	True
RCM-RegTrack-RegEv: RuleType	List	True
RCM-RegTrack-RegEv: ShortTitle	Text	True
RCM-RegTrack-Taxonomy: Countries	*List	True
RCM-RegTrack-Taxonomy: Entity Types	*List	True
RCM-RegTrack-Taxonomy: Functions	*List	True
RCM-RegTrack-Taxonomy: Products	*List	True
RCM-RegTrack-Taxonomy: Regions	*List	True
RCM-RegTrack-Taxonomy: Regulators	*List	True
RCM-RegTrack-Taxonomy: Reports	*List	True

*The profile display type is List, but these fields use the "hierarchical enum" field data type and they're displayed differently in the Task Focused UI.

- For the **Navigational Views > Filtered List** for RegTrackRegEvent, click it and go to **Associated Filters**. Include the filter My Reg-Track Regulatory Events. This step is required to make the filter available in the Task Focused UI dashboards.

3. In the Standard UI, include the `RegTrackRegSeries` object type in the profiles of users who need to see these objects.
 - After you include the new types in the profile, ensure that the **Navigational Views > Filtered List** view is enabled. Also ensure that the **Object Views > Detail** view is the default view.
 - Update the display type and read-only properties for the included fields on `RegTrackRegSeries`:

Field	Display Type	Read Only
System Fields: Name	Text	False
System Fields: Description	Text Area	False
System Fields: Location	Text	True
System Fields: Creation Date	Date	True
System Fields: Created By	Integer	True
System Fields: Last Modification Date	Date	True
System Fields: Last Modified By	Integer	True
RCM-RegTrack-RegSeries: RegTrack Series Id	Text	True
RCM-RegTrack-RegSeries: RegTrack Series Name	Text	True

Add New Wizard

In a fresh install of RCM, the Add New feature is disabled for the `RegTrackRegEvent` and `RegTrackRegSeries` objects by default.

To disable the button manually:

1. Open the **Settings** page in the Task Focused UI or in the Standard UI.
2. Go to `/Application/GRCM/Add New Wizard/Disable Add New Filtered List View Page Global Launch Points`.
3. Edit the value and add `RegTrackRegSeries,RegTrackRegEvent` to the list. Click **Save**.

Post-install steps

Because new fields have been added and changed in the OpenPages schema, it's a good idea to regenerate the reporting framework as a post-install step. Note that this step isn't required to run a Reg-Track import or to use the workflows.

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