Prudential®

**ICM Interface**

**BP014 - Entity Set**



|  |  |  |
| --- | --- | --- |
| Author | : | *Irram Sherwani, Michael Dmytrenko* |
| Manager | : | *Sander De Rooij* |
| Document ID | : | *BP014 - Entity Set* |
| Date last updated | : | *12 March 2021* |
| Version | : | *1.3.1* |
| Status | : | *Final* |
| Document Name | : | *BP014 Entity Set v1.3.1.docx* |
| Classification | : | *Confidential* |

Document Information

|  |  |
| --- | --- |
| **Organization** | Prudential |
| **Author** | Irraam Sherwani, Michael Dmytrenko |
| **Manager** | Sander De Rooij |
| **Title** | ICM interface |
| **Subtitle** | BP014 Entity Set |
| **Document ID** | BP014 |
| **Date last updated** | 12 maart 2021 |
| **Version** | V1.3.1 |
| **Status** | *Final* |
| **Document Name** | BP014 Entity Set v1.3.1.docx |
| **Classification** | *Confidential* |

Version History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Status** | **Comments** |
| V1.0 | 06-05-2019 | Draft | Published version for Release 6.4.0.0 |
| V1.1 | 13-05-2019 | Final | Minor change in ESM004 Use case. |
| V1.2 | 02-09-2020 | Draft | Published version for Release 6.8.0.0 |
| V1.2.1 | 12-10-2020 | Final | Published version for release 6.8.5.1 including changes after revision by the client |
| V1.3 | 22-01-2021 | Draft | Draft version for release 7.0.0.0 |
| V1.3.1 | 12-03-2021 | Final | Published version for Release 7.0.2.0 including changes after revision by the client |

References

|  |  |  |
| --- | --- | --- |
| **Doc-ID** | **Document** | **Version** |
|  |  |  |
|  |  |  |
|  |  |  |

Open and Closed Issues

|  |  |  |
| --- | --- | --- |
| **#** | **Issue** | **Status** |
|  |  |  |
|  |  |  |

Target readership

|  |  |  |
| --- | --- | --- |
| **Role** | **Purpose** | **Comments** |
| Manager Group Risk |  |  |
| Project Team Implementation |  |  |

Review table

Please mark an **X** on the document version you have reviewed.

This will enable the Project Board approval process to be sped up.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Role** | **Name** | **1.0** | **1.1** | **1.2.1** | **1.3** | **1.3.1** |  |
| Capital Management and Modelling, Risk Modelling, Head Of | Stephen Hainsworth | x | x |  |  |  |  |
| Capital Management and Modelling, Risk Modelling, Senior Manager | David Van Der Merwe |  |  |  |  |  |  |
| Capital Management and Modelling, Actuarial Consultant | Cassandra Moore |  |  | x |  |  |  |
| Project Manager | Ola Olaopa |  |  | x |  |  |  |
| Solution Architect | Petre Todorov | x | x | x | x |  |  |
| Lead Developer | Laurent Severac | x | x | x | x |  |  |
| Developer | Agnes Regeni | x | x |  |  |  |  |
| Project manager | Sander de Rooij | x | x |  | x |  |  |
| Business Analyst | Irram Sherwani | x | x | x | x | x |  |
| Custom Projects Solution Owner | Michael Dmytrenko |  |  | x | x | x |  |
| Senior Test Analyst | Ruchi Patni | x | x | x | x |  |  |

Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **Signature** | **Date** |
| Internal Capital Model Oversight Committee (ICMOC) |  |  |  |

Table of Contents

[1 Use Cases 4](#_Toc66471346)

[1.1 ESM001 View Entity Set List 4](#_Toc66471347)

[Constraints 4](#_Toc66471348)

[1.2 ESM002 Create Entity Set 8](#_Toc66471349)

[1.3 ESM003 Assign Lite Models/Aggregation Rules to Entity Set 10](#_Toc66471350)

[1.4 ESM004 Delete Entity Set 13](#_Toc66471351)

[1.5 ESM005 Copy Entity Set 14](#_Toc66471352)

[1.6 ESM006 Modify Entity Set 15](#_Toc66471353)

[1.7 ESM007 Filter Entity Sets 20](#_Toc66471354)

[1.8 ESM008 Rename Entity Set 22](#_Toc66471355)

[1.9 ESM010 Download Entity Set Events table 23](#_Toc66471356)

[1.10 ESM011 Validate Entity Set 23](#_Toc66471357)

[1.11 ESM012 Un-assign Lite Models/ Aggregation Rules from an Entity Set 27](#_Toc66471358)

[1.12 ESM013 Bulk Assignment of Lite Models/ Aggregation Rules to an Entity Set 30](#_Toc66471359)

[1.13 ESM014 Download Results of the Bulk Assignment 35](#_Toc66471360)

[1.14 ESM015 Bulk Download of LM, AR, Entity structure and entity set parameter files from an Entity Set 38](#_Toc66471361)

[2. Appendices 40](#_Toc66471362)

[I. Bulk Assignment 40](#_Toc66471363)

# Use Cases

## ESM001 View Entity Set List

Entity Set

### Use Case

|  |  |
| --- | --- |
| Constraints | |
| Post-condition | The Entity Sets stored in the system are displayed. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** |  |
| Basic Path | 1. The system displays the Entity Set dashboard. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-250 The system shall display the Entity Set summary table in the dashboard** | | | |
| For each version of an Entity Set the system shall show the following details:  - Name;  - Version;  - Description;  - Status;  - Base Date;  - Entity Structure and its version;  - Geographical Rights;  - Last modified local date: timestamp of the last event performed on the entity set (excluding locking events);  - Last modified system date: this column is by default hidden.  - Archive status: archive status of the entity set.  The field ‘Archive status’ is left blank if there is at least one tag assigned to the selected version of the entity set which has the ‘Archive status’ blank.  The Archive status is populated with the following statuses:  -‘Archive requested’ if all the tags assigned to the selected version of the entity set have the ‘Archive?’ flag set to ‘Yes’ and the tags Archive status is ‘Archive requested’.  - ‘Restore requested’ if there is at least one tag of the selected version of the entity set that has the ‘Archive?’ flag changed from ‘Yes’ to ‘No’ and the ‘Archive status’ set to ‘Restore requested’.  By default, the components are displayed in black.  For the user that has the version of the entity set locked/marked as being modified the system shall display the component in italics.  For the other users the system shall display the components in grey when locked and with a star in front of the name when marked as being modified.  By default the entity set summary table is populated with the latest version of the entity set that the user is allowed to access and match the filters selected by the user.  If a validated entity set has been automatically shared (shared by version) as assigned to an assumption set, the users belonging to the shared geographies will only have access to the specific validated version of the entity set which has been assigned in the assumption set. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **5.3,0,0** |
| **From** | **:** | **fwijk** |
| **RQ-251 The system shall display the list of the lite model and of the aggregation rules attached to the entity set in tabs of the details table in the dashboard.** | | | |
| The system shall show the list of lite models and aggregation rules attached to the selected version of the Entity Set.  For each lite model/aggregation rule the system shall show the following information:  - Name;  - Version;  - Status;  - Base date;  - Description;  - Associated node.  This table is by default empty, the system shall populate it when a version of an Entity Set in the Entity Set summary table is selected. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **6.1.0.0** |
| **From** | **:** | **fwijk** |
| **RQ-252 The system shall display the Entity Structure tree in the dashboard** | | | |
| The system shall display the Tree of the associated entity structure of the selected version of the Entity Set in the tree table.  The system shall use colors to mark the nodes:  - Red if there is nothing associated;  - Amber if the node has a component associated with status “In Review” or “Rejected”;  - Green if the aggregation rule (for the higher nodes) or the lite model (for the end nodes) associated is validated.  - Blue if the entity set has been validated.  This table is by default empty, the system shall populate it when a version of an Entity Set in the Entity Set summary table is selected. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **5.2.0.0** |
| **From** | **:** | **fwijk** |
| **RQ-254 The system shall display the Entity Set events table in a tab of the details table in the dashboard** | | | |
| The system shall display the following information for the selected version of the Entity Set:  - Type: contains type of action that was performed for the Entity Set  - Version: shows the version of the Entity Set after the action has been performed.  - User: the UserID of user who performed action  - Local Date: date and time on which the action was performed in the local time zone of the user.  - System Date.  The system shall show the list of events that have been performed on the Entity Set from version 1.0 to the selected version.  The system shall show the following events:  - Created;  - Renamed;  - Modified (including when an aggregation rule or a lite model has been assigned);  - Validated;  - Locked/Marked as being modified (marked for editing is recorded as system comment for the “locked” event)  - Shared.  Each line of the table is expandable, if expanded it will show the comments entered when the action has been performed. The system shall display user and system comments. User comments are the comments entered by the user when the action was performed (when available). System comments add more details to the type of action.  This table is by default empty, the system shall populate it when a version of an Entity Set in the Entity Set summary table is selected.  The column System Date is by default hidden. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **3.2.8.1** |
| **From** | **:** | **fwijk** |
| **RQ-279 The system shall display the Entity Set usage table in a tab of the details table in the dashboard** | | | |
| This table shows in which assumption set the selected version of the entity set has been assigned to.  For each assumption set the system shall show the following information:  - Name;  - Version;  - Type (this column is by default hidden);  - Description;  - Status;  If the selected version of the entity set has been involved in a run of the displayed assumption set the system shall populate the following fields:  - Last Run Local Date;  - Last Run System Date;  - Last Run Status;  - Last Run Triggered by.  By default, this table is empty. The system shall populate it when a version of the Entity Set in the Entity Set summary table is selected.  The column Last Run System Date is by default hidden. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **5.2.0.0** |
| **From** | **:** | **fwijk** |
| **RQ-777 The system shall display the properties table in the library dashboard** | | | |
| This table shows all the properties associated to the entity set:  - Name;  - Status;  - Version;  - Base Date;  -Tags: if more than one, displayed as comma separated;  - Description;  - Allowed geographies: list of user groups that can access the entity set (owner user group and user groups the entity set has been shared with).  - Entity Structure Name and Version;  - Last modified by;  - Last modified local date: timestamp of the last event performed on the entity set (excluding locking events);  - Last modified system date.  By default, this table is empty. The system shall populate it when a version of the entity set in the entity set summary table is selected. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **5.1.0.0** |
| **From** | **:** | **smagdalina** |
| **RQ-841 The system shall display the properties table in the library dashboard** | | | |
| This table shows all the properties associated to the entity set:  - Name;  - Status;  - Version;  - Base Date;  -Tags: if more than one, displayed as comma separated;  - Description;  - Allowed geographies: list of user groups that can access the entity set (owner user group and user groups the entity set has been shared with).  - Entity Structure Name and Version;  - Last modified by;  - Last modified local date: timestamp of the last event performed on the entity set (excluding locking events);  - Last modified system date.  By default, this table is empty. The system shall populate it when a version of the entity set in the entity set summary table is selected. | **Status** | **:** | **Implemented** |
| **Priority** | **:** | **Medium** |
| **Phase** | **:** | **5.2.0.0** |
| **From** | **:** | **smagdalina** |
| **RQ-2080 The system shall display the Validation Panel in the library dashboard** | | | |
| In this table, the system shall show if all Lite Model and Aggregation Rule Nodes that are present in the entity set are assigned to code bases from the same ‘Standard ICM RAFM Project’, and therefore the entity set is ‘compliant’ in this context.  Following fields shall be displayed in this panel.  **Name:** Static value “LM/AR Validation” shall be populated in this field.  **Value:**   * The value of this field shall be “Yes” if all Lite Models and Aggregation Rule Nodes that are associated to the selected entity set are assigned to code bases from the same ‘Standard’ ICM RAFM Project. * The value of this field shall be “No” if Lite Models and Aggregation Rule Nodes that are associated to the selected entity set are assigned to code bases which are **not** from the same ‘Standard’ ICM RAFM Project.   The ‘LM/AR Validation’ indicator will be refreshed if any of ICM components present in the selected Entity set (single or nested) are modified or changed. This includes the standard RAFM project(s) which is associated to each LM and AR assigned to the entity set.  The table shall be populated with the above values for the selected entity set if all the nodes on the entity set have been assigned either a lite model or aggregation rule. Until then the table shall be populated with the value “N/A” for LM/AR Validation. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **6.1.0.0** |
| **From** | : | **Irram Sherwani** |

## ESM002 Create Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Post-condition | The newly created Entity Set is stored in the system and available for further use to the allowed users. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects the option "Create".  2. The system displays a pop up window containing:      - Name;      - Description;      - Base date;      - Tag: dropdown feature;      - Entity structure.  3. The user fills in the requested fields.  4. The user selects the button "Save"  5. The system stores the created Entity Set and updates the Entity Set summary screen. |
| **Alternate 4.1** | |
| Alternate | If the user selects the button "cancel" the system will stop processing. |
| **Alternate 5.1** | |
| Alternate | The system shows an error message if the name of the entity set is not unique. |
| **Alternate 5.2** | |
| Alternate | The system issues a warning if the interval between the base date of the selected Entity Structure and the base date of the new Entity Set is bigger than 1 year. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-255 The system shall allow a user to create an Entity Set** | | | |
| The system shall allow the user to define:  - Name: free text field. It is a mandatory field, it must be unique.  - Description: free text field. It is a mandatory field.  - Base date: date picker feature. It is a mandatory field.  - Tag: dropdown feature containing the tags created in the system that have been made available for filter. It is a mandatory field.  - Entity structure: drop down feature listing the available Entity Structures (entity structure owned or shared with the user group of the user).  The system shall check the base date of the entity structure. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-256 The system shall assign the version to the Entity Set** | | | |
| The system shall assign the value "1.0" to the version of a new Entity Set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-257 The system shall assign the status to the Entity Set** | | | |
| The system shall assign the value "In Review" to the status of a new Entity Set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-258 The system shall assign the geographical rights to the Entity Set** | | | |
| The system shall assign the geographical rights of the user creating the Entity Set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-778 The system shall assign the entity set tag to the entity structure which is assigned to the entity set** | | | |
| The system shall assign the entity set tag set by the user to the assigned entity structure, only if the entity structure does not hold the tag already.  The system shall mark for archiving the entity structure if the tag of the entity set is marked to be archived and if:  - the tag is the only tag assigned to the entity structure;  -if the other tags assigned to the entity structure are all marked as 'Archive requested'.  The system shall not change the Archive status of the entity structure if there is at least one tag assigned to the component which has the 'Archive?' option set to 'No'.  The system shall mark for restoring the entity structure if the tag of the entity set is marked as 'Restore requested'. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM003 Assign Lite Models/Aggregation Rules to Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The selected version of the entity set is unlocked |
| Pre-condition | The user belongs to the user group that owns the entity set or to a geography to which the entity set has been manually shared with. |
| Post-condition | The selected lite model/aggregation rule is associated with the node of the Entity Set |
| Post-condition | When each node of entity set has an aggregation rule or lite models assigned, LM/AR validation is evaluated. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an Entity Set.  2. The user right clicks on a node of the Entity Structure tree.  3. The user selects "Assign" from the list of possible actions.  4. If the Entity Set has status "In Review", the system locks the Entity Set; if it is "Validated" the system marks it as marked for editing  5. The system displays the list of available lite models or aggregation rules depending on the selected node.  6. The user selects the lite model/aggregation rule.  7. The user selects the option "Save".  8. If the Entity Set has status "In Review", the system updates the same version and updates the summary table; if it is "Validated" the system creates a new version and updated the summary table.  9. The system unlocks/removes the mark to the version. |
| **Alternate 7.1** | |
| Alternate | If the user clicks the button "Cancel" the use case is aborted. |
| **Alternate 8.1** | |
| Alternate | The system gives a warning if a component is marked as being modified. |
| **Alternate 8.2** | |
| Alternate | The system displays a warning message if the interval between the base date of the lite model/aggregation rule and the base date of the entity set is greater than 1 year. |
| **Alternate 8.3** | |
| Alternate | If the selected version of the entity set is in status "In Review", the system shows a warning message informing the user that if he will proceed with his action, the system will invalidate the assumption set runs that are using the selected version of the entity set. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-278 The system shall allow the user to assign aggregation rules/lite models to a node of the tree of an unlocked Entity Set** | | | |
| The system shall allow the user to assign lite models to leaf nodes, and aggregation rules to non leaf nodes. If a lite model/aggregation rule is already assigned to the selected node, the system shall overwrite the previous one.  The system shall allow the user only to assign "In Review" lite models/aggregation rules that are unlocked or "Validated" lite models/aggregation rules. Only those lite models/aggregation rules that are owned by the user group or that have been shared with it can be assigned to the entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-281 The system shall create a new version of the Entity Set if nodes are (re)-assigned and the Entity Set has the status "Validated"** | | | |
| If the selected version of the Entity Set has the status "In Review" it will be updated without changing the version number. The changes will be reflected in the assumption sets the entity set is assigned to.  If the Entity Set is in status "Validated" the system shall create a new version by increasing the version number of +0.1 each time a lite model or an aggregation rule is (re)assigned to a node. The new version will have the status "In Review". | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-326 The system shall allow only one lite model/aggregation rule to each node,** | | | |
| If a lite model/aggregation rule  is already assigned to a selected node, the system shall overwrite the previous one. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-671 The system shall invalidate the run results of the assumption sets that use the selected version of the entity set** | | | |
| If the entity set is in status "In Review" and it is used in an assumption set and/or an assumption set marked as "same as" the system shall invalidate the runs triggered from the modified node and the runs triggered from the direct parents and grandparents nodes..  The system should not invalidate the runs triggered from lower hierarchical levels nested on the modified entity set.  The system shall:  -cancel the runs before processing and remove them from the queue, if the modification occurs while the run is queued and the status of the selected runs is "Queued".  -invalidate the run only after the run is completed, if the modification occurs during the "Processing" status of the run.  -change the status from "Completed" to "Invalidated" for completed runs.  If the run to be invalidated was triggered through the 'Run Stoch & CS' batch, the system shall invalidate also the associated Critical Scenario run which was triggered as part of the same batch run. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-779 The system shall assign the entity set tag to the lite model/ aggregation rule which is assigned to the entity set** | | | |
| The  system shall assign the entity set tag to **lite model/ aggregation rule which is assigned to the entity set**  If the entity set is the only source of tag for a lite model/ aggregation rule and the lite model/ aggregation rule is replaced, the system shall automatically remove the tag from the replaced component.  If the tag removed was the only tag held by the components, the system will assign the default tag "Rejected" to those components which do not have any tag. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-780 The system shall assign the Archive status to the lite model/ aggregation rule which is assigned to the entity set** | | | |
| The  system shall mark for archiving the lite models and aggregation rules if the tag of the entity set is marked to be archived and if:  - the tag is the only tag assigned to the component;  -if the other tags assigned to the component are all marked as 'Archive requested'.  The system shall not change the Archive status of the components if there is at least one tag assigned to the component which has the 'Archive?' option set to 'No'.  The system shall mark for restoring the entities assigned if the tag of the entity set  is marked as 'Restore requested'. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-781 The system shall update the Archive status of the replaced components** | | | |
| The system shall update the Archive status of the replaced lite model or aggregation rule if needed:  If the replaced components have other tags assigned with the Archive status set to "Archive requested", the system shall set the Archive status of these components to "Archive requested".  If there is at least one tag assigned to a component marked as 'Restore requested', the system shall leave the Archive status to 'Restore requested'.  If there is at least one tag assigned to the component that is blank and all the other tags have the Archive status different from 'Restore requested', the Archive status of the component is blank. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-2116 The system shall evaluate the LM/AR Validation when** each node of entity set has an aggregation rule and lite models assigned. | | | |
| Once the last LM/AR has been assigned the ‘LM/AR validation’ shall be evaluated.  Refer RQ-2080 Use case ‘ESM001 View Entity Sets’ for more details on LM/AR validation | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM004 Delete Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | None of the versions of the selected Entity Set is currently assigned to a calculation Assumption Set |
| Pre-condition | None of the versions of the selected Entity Set is locked or marked as being edited. |
| Post-condition | All the versions of the selected Entity Set are deleted from the system |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an Entity Set in the summary table in the Entity Set dashboard.  2. The user selects the option "Delete".  3. The system displays a confirmation message.  4. The user selects the button "Delete".  5. The system removes all the versions of the selected Entity Set from the database and updates the Entity Set summary table. |
| **Alternate 4.1** | |
| Alternate | If the user clicks the button "Cancel" the use case is aborted. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-268 The system shall allow a user to delete an Entity Set** | | | |
| The system shall allow the user to delete an Entity Set if none of its versions:  - is locked/marked as being modified and  - exist in a calculation assumption set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM005 Copy Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The selected version of the entity set is unlocked. |
| Post-condition | A copy of the selected Entity Set is created in the system |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an Entity Set in the summary table in the Entity Set dashboard.  2. The user selects the option "Copy".  3. The system shows a pop up window containing:      - Name: text field to enter the name for the copied Entity Set.  4. The user selects the "Copy" button.  5. The system creates a copy of the selected Entity Set and assigns to it the name entered by the user. |
| **Alternate 4.1** | |
| Alternate | If the user clicks the button "Cancel" the use case is aborted |
| **Alternate 5.1** | |
| Alternate | The system shows an error if the name entered in the name field is not unique. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-269 The system shall allow the user to copy an Entity Set** | | | |
| The system shall allow the user to copy a version of the Entity Set that is not locked.  The system shall allow the user to enter a name for the copied Entity Set. The name is mandatory and must be unique. The system shall copy over all the attributes of the entity set excluded geographical rights, status and version. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-270 The system shall assign the version to the copied Entity Set** | | | |
| The system shall assign the value "1.0" to the version of a copied Entity Set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-271 The system shall assign the status to the copied Entity Set** | | | |
| The system shall assign the value "In Review" to the status of a new Entity Set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-272 The system shall assign the geographical rights to the copied Entity Set** | | | |
| The system shall assign the user group of the user that made the copy as owner user group of the copied entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-782 The system shall transfer the tag of the original entity set to the copied entity set** | | | |
| The system shall assign the tag of the original entity set to the copied entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM006 Modify Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The selected version of the entity set is unlocked |
| Pre-condition | The user belongs to the user group that owns the entity set or to a geography to which the entity set has been manually shared with. |
| Post-condition | If the Entity Set is "In Review", it is updated and the changes are reflected is the assumption set (if the selected entity set is assigned to any). If the status is "Validated", a new version of the Entity Set is created. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an Entity Set in the summary table in the Entity Set dashboard.  2. The user selects the option "Modify"  3. If the Entity Set has status "In Review", the system locks the Entity Set; if it is "Validated"  the system marks it as marked for editing.  4. The system shows a pop up window containing:       - Name (not modifiable);       - Description;       - Base date;       - Tag: enable if the status of the entity set is in status "In Review";       - Entity structure;       - Comment: free text for comments.  5. The user fills in the requested fields.  6. The user selects the button "Save".  7. If the Entity Set has status "In Review", the system updates the same version and updates the summary table; if it is "Validated" the system creates a new version and updated the summary table.  8. The system unlocks/remove the mark to the version. |
| **Alternate 2.1** | |
| Alternate | The system shows a warning message if the selected version of the entity set is marked as being edited. |
| **Alternate 6.1** | |
| Alternate | If the user selects the button "Cancel" the user case is aborted. If the selected version of the Entity Set is locked, the system unlocks it. If the selected version of the Entity Set is marked as being modified, the system un-marked as being modified. |
| **Alternate 6.2** | |
| Alternate | If the combination of attributes has been chosen in an existing version of the entity set, the system displays a warning message asking the user if a new version should be created. |
| **Alternate 6.3** | |
| Alternate | If the interval between the base date of the entity set and of any of the assigned components is greater than 1 year, the system gives a warning. |
| **Alternate 6.4** | |
| Alternate | If the selected version of the entity set is in status "In Review", the system shows a warning message informing the user that if he will proceed with his action, the system will invalidate the assumption set runs that are using the selected version of the entity set. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-273 The system shall allow the user to modify any version of an Entity Set** | | | |
| The system shall allow the user to modify the following information:  - Description;  - Base date;  - Entity structure;  - Tag: dropdown feature containing the tags created in the system, that have been made available for filtering. Enabled only for entity sets that are 'In Review' status.  The tags which have been inherited from assumption set cannot be modified.  The system shall allow the user to enter a comment(not mandatory).  If the entity structure is modified the system shall assign the lite models/aggregation rules to the nodes of the new structure that:  - have the same name  - have the same children: the same number of children and all the children have the same name.  All the changes that are performed on the components with status "In Review" of the entity set are reflected also in the entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-274 The system shall create a new version if a modified Entity Set has the status "Validated"** | | | |
| If the selected version of the Entity Set has the status "In Review" it will be updated without changing the version number.  If the selected version of the Entity Set has status "Validated" the system shall create a new version that has status "In Review". The version number will be increased according to the following rules:  - If the entity structure and/or the base date is changed, increase the version to next natural number.  - If anything else is changed increase the version number of 0.1.  If the version number that should be created already exists, the system shall create use the next available number.  (Example: versions 1.0, 1.1, 1.2, 1.3, 1.4, 2.0, 2.1, 3.0 exist in the system and the user modifies version 1.1. The system will create version 1.5 or 4.0 depending of what is modified).  If the entity set is in status 'Validated' and the default tag 'Historical' is changed, the system shall not increase the version number of the selected entity set.  When a new version is created by modifying a validated entity set version, the system shall assign the default 'New' tag to the new version created. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-277 When the modified entity set is "In Review" the changes are reflected in the assumption sets the entity set is assigned to.** | | | |
| If the entity set is in status “In Review" and it is used in an assumption set and/or an assumption set marked as “same as" the system shall invalidate the runs triggered from the modified entity set and runs triggered from direct parents and grandparents nodes. Not applicable if the entity structure is modified.  If the entity structure is modified, the system shall invalidate the runs triggered from the nodes of the modified entity set and runs triggered from direct parents and grandparents nodes and the runs triggered from the nodes of entity sets, that will be removed, nested on the lower nodes of the modified entity set (if any).  The system shall:  -cancel the runs before processing and remove them from the queue, if the modification occurs while the run is queued and the status of the selected runs is "Queued".  -invalidate the run only after the run is completed, if the modification occurs during the "Processing" status of the run.  -change the status from "Completed" to "Invalidated" for completed runs.  If the run to be invalidated was triggered through the 'Run Stoch & CS' batch, the system shall invalidate also the associated Critical Scenario run which was triggered as part of the same batch run.  Saving with the same attributes, modifying the description, the tag or adding comments will not change the status of the runs. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-783 The system shall re-assign the entity set tag to the entity structure and to all the other components assigned to the entity set** | | | |
| If the entity set's tag is updated, the system shall assign the new tag to the entity structure and all the underlying components (lite models and aggregation rules) which are assigned to the entity set, only if they do not hold the new tag already.  If the entity set is the only source of tag for the underlying components, the system shall  replace the tag of the underlying components with the new tag. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-784 The system shall assign the Entity Set tag to the Entity Structure if this is replaced on the selected version of the entity set** | | | |
| The system shall assign the tag of the entity set to the new entity structure if the entity structure does not hold the tag already.  If the selected entity set is the only source of tag for the replaced entity structure, the system shall automatically remove the tag from the entity structure replaced.  As a consequence, the system shall remove the tag from those versions of the lite models, aggregation rules versions which are assigned to the nodes of the replaced entity structure only if the entity set is the only source of tag for the underlying components and only if the components have not been automatically re-assigned to the nodes of the new entity structure.  If the tag removed was the only tag held by the components, the system will assign the default tag "Rejected" to those components which do not have any tag. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-785 The system shall assign the Archive status to all the components assigned to the entity set** | | | |
| The system shall mark for archiving the entity structure, lite model and aggregation rules if the tag of the entity set is marked to be archived and if:  - the tag is the only tag assigned to the component;  -if the other tags assigned to the component are all marked as 'Archive requested'.  The system shall not change the Archive status of the components if there is at least one tag assigned to the component which has the 'Archive?' option set to 'No'.  The system shall mark for restoring the entities assigned if the tag of the entity set  is marked as 'Restore requested'. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-2117 The system shall re-evaluate the LM/AR Validation** If the modification results a change to entity structure. | | | |
| If the modification results a change to entity structure this would require a re-evaluation of the ‘LM/AR validation’ indicator  Refer RQ-2080 Use case ‘ESM001 View Entity Sets’ for more details on LM/AR validation | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM007 Filter Entity Sets

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The dashboard of Entity Sets is populated with at least one version of an Entity Set |
| Pre-condition | Filters are enabled |
| Post-condition | Only the versions of the Entity Sets that match the filters applied are displayed in the Entity Set summary table |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user navigates to the Entity Set dashboard.  2. The user selects the option "filter".  3. The system displays a pop up window containing the applicable filters.  4. The user enters the requested filters.  5. The user selects the button "Save"  6. The system applies all the selected filters to list of the Entity Sets in the library and displays only those that match all the selected filters. |
| **Alternate 5.1** | |
| Alternate | If the user clicks the button "Cancel" the use case is aborted. |
| **Alternate 5.2** | |
| Alternate | If the user selects the button "Clear" the selected filters are deleted and the system shows the complete sample of entity set available for the user. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-260 The system shall allow the user to filter Entity Sets by Name** | | | |
| The system shall allow the following filters:  - Includes: free text. The system will search for the exact string in Entity Set names to be included.  - Excludes: free text box.  The system will search for the exact string in Entity Set names to be excluded. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-261 The system shall allow the user to filter Entity Sets by Version** | | | |
| The system shall allow the user to:  - enter a version number (version 0.0 is not accepted) or;  - select the highest version or  - selected the most recent version.  The highest version is the version with the highest version number; the most recently created version is the version with the latest date created. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-262 The system shall allow the user to filter Entity Sets by Base Date** | | | |
| The system shall allow a user to enter a start date and an end date. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-264 The system shall allow the user to filter Entity Sets by Status** | | | |
| The system shall allow the user to select among the available statues for entity set (entity set can have status: In review and validated). | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-265 The system shall allow the user to filter Entity Sets by Entity Structure** | | | |
| The system shall allow the user to enter the name or to select one or more entity structure. The system shall show only the entity structures that are owned or shared with the user group of the user and that are currently assigned to an entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-266 The system shall allow the user to filter Entity Sets by Last Modified Local Date** | | | |
| The system shall allow a user to enter a start date and an end date. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-267 The system shall allow the user to filter Entity Sets by Last Modified By** | | | |
| The system shall display the list of users grouped per user group.  The user will be able to select a complete user group or some users within a user group. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-320 The system shall allow the user to filter Entity Sets by Lite Model** | | | |
| The system shall allow the user to enter the name or to select one or more lite models. The system shall show only the lite models that are owned or shared with the user group of the user and that are currently assigned to an entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-321 The system shall allow the user to filter Entity Sets by Aggregation Rule** | | | |
| The system shall allow the user to enter the name or to select one or more aggregation rules. The system shall show only the aggregation rules that are owned or shared with the user group of the user and that are currently assigned to an entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM008 Rename Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | None of the versions of the selected entity set is locked |
| Pre-condition | All the versions of the selected entity set are in status "In Review" |
| Post-condition | The selected entity set (all its versions) is renamed |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an entity set in the entity set summary table.  2. The user selects the option "rename"  3. The system shows a pop up window containing:      - name: text field to enter the name for the entity set.  4. The user selects the "rename" button.  5. The system updates the library by renaming the selected entity set |
| **Alternate 4.1** | |
| Alternate | If the user selects the button "cancel" the user case is aborted. |
| **Alternate 5.1** | |
| Alternate | The system shows an error message if the name assigned to the entity set is not unique. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-482 The system shall allow the user to rename an entity set** | | | |
| The name is a mandatory field and must be unique. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-483 The system shall allow the user to rename an entity set if all its versions are in status “In Review" and not locked** | | | |
|  | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM010 Download Entity Set Events table

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Post-condition | The event table is available for the user in the requested file format. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects the a version of an entity set in the entity set summary table.  2. The user selects the option "Download" in the event table.  3. The system displays a pop up window with the available file formats.  4. The user selects the file format.  5. The user selects the button "Download".  6. The browser takes over. |
| **Alternate 5.1** | |
| Alternate | If the user selects the button "cancel" the use case is aborted. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-562 The system shall allow the user to download the event table in excel, csv or .pdf format** | | | |
| The system shall provide the user with a file that has the following tabular format:  - Type of event;  - Version;  - User;  - Local Date;  - System Date;  - System comments;  - User comments.  The order of the first 5 columns and the sorting should reflect the order and sorting defined on screen (if any of the columns is hidden, it should be excluded from the file).  The system shall add an header row to the file with the following information:  <Entity Set> name of the entity set, <V> version number of the entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM011 Validate Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The selected version of the entity set is unlocked. |
| Pre-condition | The selected version of the entity set is in status "In Review". |
| Pre-condition | All the associated lite models, aggregation rules and entity structure are not locked. |
| Pre-condition | The status of all the components (lite models, aggregation rules and entity structure) attached to the selected version of the entity set is either "In Review" or "Validated". |
| Pre-condition | For entity sets with nesting points (marked as nesting nodes):   * entity set should be complete (i.e. all non-nesting nodes has LMs/ARs assigned and all marked as nesting nodes has nested entity sets associated) |
| Pre-condition | For non-nested entity sets, There is at least one valid run (Run status set to “Completed”) that includes the entire entity set.  For nested entity sets there should be at least one valid run (Run status set to “Completed”) that is triggered from root node of the assumption set:   * run should include assumption set which is complete (i.e. all non-nesting nodes has LMs/ARs assigned and all marked as nesting nodes *or* nodes with assigned geographies has nested entity sets associated)   run should include entire assumption set entity structure tree (i.e. main entity set, and all entity sets nested on the lower nodes of main entity). |
| Pre-condition | The user validating the entity set is different from the user who last modified the versions of the components assigned to the entity set, including the selected version of the entity set. |
| Post-condition | The status of  - all the lite models, aggregation rules associated with the selected entity set;  - Standard RAFM Projects that have its code base assigned to lite models & aggregation rules (associated with the selected entity set);  - Merged RAFM Projects (applicable only if main entity set assigned to assumption set is validated) -Refer RQ-742 for more details ;  - entity structure associated with the selected entity set;  - entire nested entity set (main entity set and all entity sets nested on the lower nodes (if any)).  is changed from "In Review" to "Validated. |
| Post-condition | The selected entity set is in status “Validated”. |
| Post-condition | The selected version of the entity set and the specific versions of the underlying components which are assigned to it are shared with the parents and grandparents geographies which are assigned to the assumption set on which the entity set is nested. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** |  |
| Basic Path | 1. The user selects a version of an entity set from the entity set summary table.  2. The user selects the option “Validate”.  3. The system displays a pop up window containing:  -comments: free text format field;  -upload file: browse feature.  4. The user fills in the requested fields.  5. The user selects the "Validate" button.  6. The system changes the status of the underlying components and of the selected entity set.  7. The entity set summary table is updated. |
| **Alternate 5.1** |  |
| Alternate | If the user selects the button "Cancel", the use case is aborted. |
| **Alternate 5.2** |  |
| Alternate | If the interval between the base date of the all the components (lite model, aggregation rules, entity structure) assigned and the entity set is greater than 1 year, the system gives a warning message. |

Entity Set

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| RQ-740 The system shall allow the user to validate an entity set in status "In Review" | | | |
| * **For non-nested entity sets:**   The system shall enable the "Validate" button if there is a valid run with status "Completed" that includes the entire entity set that needs to be validated.   * **For nested entity sets:**   The system shall enable the validate button if:  all nesting points (mark as nesting nodes) if available in entity set is complete i.e. marked as nesting nodes have nested entity sets associated.  all nesting on assigned geographies node (if available in entity set) is complete i.e. assigned geography nodes has nested entity sets associated.   * there should be at least one valid run (Run status “Completed”):   + run should be triggered from root node of the assumption set version.   + valid run must include main entity set and all entity sets nested on the lower nodes.   + All non-nesting nodes of entity sets included in run must have LM/AR assigned   + all marked as nesting nodes (if available in entity set) included in run has nested entity set associated.   + all nodes with assigned geography (if available in entity set) included in run has nested entity set associated.   The system shall update the Summary table and record an event in the events table of the entity set and of the components. The nodes of the entity structure displayed in the Entity Structure dashboard should be displayed in blue color. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-741 The system shall allow the user to upload a file and/or enter comments** | | | |
| The upload of the file and the comments are optional.  The system shall accept the file in any format. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-742 The system shall change the status of the associated components of entity set from "In Review" to "Validated"** | | | |
| If the following components associated are in status in "In Review" the system shall change their status to "Validated".  - all the lite models, aggregation rules associated with the selected entity set;  - Standard RAFM Projects that have its Code base assigned to lite models & aggregation rules (associated with the selected entity set);  - Merged RAFM Projects (A Merged RAFM project status must be switched to ‘Validated’ from ‘In Review’ when the status of ‘main’ entity set assigned to the assumption set is switched from ‘In Review’ to ‘Validated’. The ‘main’ entity includes the root node of the assumption set.)  - entity structure associated with the selected entity set;  - entire nested entity set (main entity set and all entity sets nested on the lower nodes (if any)).  For the components that are already "Validated", no action is required. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-743 The system shall make the selected version of the Entity Set and the specific versions of all its underlying components available to parents and grandparents within a nested assumption set** | | | |
| If the selected version of the entity set is nested in an assumption set, the system shall share the validated version of the entity set and all the specific versions of the underlying components which are assigned to the validated entity set:  - lite models,  - aggregation rules,  - and entity structure  with the parents and grandparents’ geographies which are assigned to the assumption set on which the entity set is nested.  The automatic sharing by version is a bottom-up process that involves only the specific versions of the components which are used in the nested entity set including the validated version of the entity set. The system shall make available the validated versions of the components to the parent and grandparents’ geographies that contribute in the assumption set, starting from the geography that provides the nesting node and up till the owner geography of the assumption set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM012 Un-assign Lite Models/ Aggregation Rules from an Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The user belongs to the user group that owns the entity set or to a geography to which the entity set has been manually shared with. |
| Pre-condition | The selected version of the entity set is unlocked. |
| Post-condition | The node of the entity set is not associated with any lite model/aggregation rule. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** |  |
| Basic Path | 1. The user selects a version of an Entity Set.  2. The user right clicks on a node of the Entity Structure tree.  3. The user selects “Un-assign”. |
| **Alternate 3.1** |  |
| Alternate | If the user clicks the button "Cancel" the use case is aborted. |
| **Alternate 3.2** |  |
| Alternate | If the selected version of the entity set is in status “In Review”, the system shows a warning message informing the user that if he will proceed with his action, the system will invalidate the assumption set runs that are using the selected version of the entity set. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-744 The system shall allow the user to un-assign aggregation rules/ lite models to a nodes of the tree of an unlocked Entity Ser** | | | |
| The system shall allow the user to remove a lite model or an aggregation rule from a node of the entity structure which is assigned to an entity set.  The user can un-assign a lite model/ aggregation rule from an entity set (that is owned or has been manually shared) only if the lite model/ aggregation rule is owned or has been manually shared with the user's geography. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-745 The system should invalidate the runs that are using the selected entity set** | | | |
| If the entity set is in status "In Review" and it is used in an assumption set and/or an assumption set marked as "same as" the system shall invalidate the runs triggered from the modified node and the runs triggered from the direct parents and grandparents nodes.  The system should not invalidate the runs triggered from lower hierarchical levels nested on the modified entity set.  The system shall:  -cancel the runs before processing and remove them from the queue, if the modification occurs while the run is queued and the status of the selected runs is "Queued".  -invalidate the run only after the run is completed, if the modification occurs during the "Processing" status of the run.  -change the status from "Completed" to "Invalidated" for completed runs.  If the entity set is assigned to an assumption set that was used for a 'Run Stoch & CS' batch, the system shall invalidate both Algo runs which were triggered as part of the same batch run. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-746 The system should update the version of an entity set** | | | |
| If the selected version of the Entity Set has the status "Validated" the version number will be updated creating a new version of the entity set.  If the selected version of the Entity Set has the status "In Review" it will be updated without changing the version number. The changes will be reflected in the assumption sets the entity set is assigned to. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-786 The system shall remove the Entity Set tag from the removed Lite Model/ Aggregation Rule** | | | |
| If the selected entity set is the only source of tag for the removed lite model / aggregation rule, the system shall automatically remove the tag from the lite model/ aggregation rule.  If the tag removed was the only tag held by the components, the system will assign the default tag "Rejected" to those components which do not have any tag. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-787 The system shall update the Archive status of the removed components** | | | |
| The system shall update the Archive status of the removed lite model or aggregation rule if needed:  If the removed components have other tags assigned with the Archive status set to "Archive requested", the system shall set the Archive status of these components to "Archive requested".  If there is at least one tag assigned to a component marked as 'Restore requested', the system shall leave the Archive status to 'Restore requested'.  If there is at least one tag assigned to the component that is blank and all the other tags have the Archive status different from 'Restore requested', the Archive status of the component is blank. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-2130 The system shall re-evaluate the LM/AR Validation upon** Un-assigning Lite Models/ Aggregation Rules from an Entity Set | | | |
| **The system shall re-evaluate the LM/AR Validation upon** Un-assigning Lite Models/ Aggregation Rules from an Entity Set.  Refer RQ-2080 Use case ‘ESM001 View Entity Sets’ for more details on LM/AR validation | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM013 Bulk Assignment of Lite Models/ Aggregation Rules to an Entity Set

Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The selected version of the entity set is unlocked. |
| Pre-condition | The user belongs to the owner user group of the selected entity set. |
| Post-condition | The specified lite models/ aggregation rules are assigned to the nodes of the entity set according the instructions included in the csv file uploaded. |
| Post-condition | The entity set is updated (if in status “In Review”) or a new version of the entity set is created (for “Validated” versions). |
| Post-condition | The resulting log file of the bulk assignment process is available for download. |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** |  |
| Basic Path | 1. The user selects a version of an entity set in the entity set summary table.  2. The user selects the option “Assign” from the Bulk Upload menu.  3. If the selected version of the entity set has the status “In Review”, the version is locked for editing. If it is in status “Validated”, it is marked as being edited.  4. The system shows a pop up window containing:  -Upload .csv file: browse feature to allow the user to navigate the local drive. It is a mandatory field.  5. The user fills in the requested field.  6. The user selects the button “Upload”.  7. The system processes the uploaded file.  8. The system associates the lite models/ aggregation rules to the nodes of the entity set as specified in the instruction file.  9. If the entity set has status “In Review”, the system updates the same version and updates the details tabs; if it is “Validated”, the system creates a new version and updates the details tabs.  10. The system unlocks or removes the mark from the selected version of the entity set. |
| **Alternate 4.1** |  |
| Alternate | The system will show an error message if the file to be uploaded is not in .csv format. |
| **Alternate 4.2** |  |
| Alternate | The system will show an error message if the header of the file to be uploaded does not contain all the attributes. |
| **Alternate 4.3** |  |
| Alternate | The system will show an error message if the uploaded file does not contain at least one line of data information (in addition to the header line). |
| **Alternate 4.4** |  |
| Alternate | The system will show an error message if the uploaded file contains duplicated node names. |
| **Alternate 6.1** |  |
| Alternate | If the user selects the button “Cancel” the use case is aborted. |
| **Alternate 6.2** |  |
| Alternate | If the entity set is not validated, the system shows a warning message informing the user that if he will proceed with his action, the system will invalidate the assumption set runs. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-842 The system shall allow the user to assign lite models and aggregation rules to an Entity Set via bulk upload process** | | | |
| The system shall allow the user to upload a .csv file and request to assign the lite model to leaf nodes and aggregation rules to non leaf nodes of the entity structure assigned to the entity set, as specified in the csv file.  The .csv file uploaded should contain a row with the following headers and below the instructions for each lite model or aggregation rule to be assigned to the entity set:  -Entity Set node name:  name of the entity structure's node which is assigned to the selected entity set.  -Lite Model/ Aggregation Rule name: name of the lite model or aggregation rule to be assigned to the node defined above.  -Lite Model/ Aggregation Rule version: version number of the lite model or aggregation rule to be assigned  The name of the file is free format.  The target performance is that the complete bulk assignment process should not take more than 10 seconds.  If a lite model/aggregation rule is already assigned to the specified  The system shall allow the user only to assign "In Review" lite models/aggregation rules that are unlocked or "Validated" lite models/aggregation rules. Only those lite models/aggregation rules that are owned by the user group or that have been shared with it can be assigned to the entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-843 The system shall perform the following checks/ validations against the uploaded .csv file** | | | |
| The system shall perform the following checks and validations:  -Check that the header of the .csv file contains all the attributes. (Refer to Appendix: Bulk Assignment section for the format of the file.)  -Check that the .csv file contains instructions data: at least one line of data information is available.  -Check that the "Entity set node name" column does not contain duplicate node names.  -Check that each row in the .csv file contains a valid values and the data of each attribute is in the correct type. (Refer to Appendix - Bulk Upload section for the format of the values)  -Check that the version of the lite models and aggregation rules  to be assigned to the nodes of the entity set belongs to the owner user group of the user that uploads the .csv file. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-844 The system shall not abort the bulk assignment process if any errors are detected during the assignment process** | | | |
| If any error is raised during the assignment of the lite models and/or aggregation rules, the system shall register the errors in the log file.  The log file is generated by the system as a result of the bulk assignment process and will include all the set of data provided in the <instructions>.csv file and the resulting status of the assigned event for each of the lite models and aggregation rules.  If a lite model/ aggregation rule is successfully assigned to the entity set, the resulting status logged by the system is "Assigned".  In case of an error the system shall not abort the bulk assignment process and register the "Failed to assign" as a resulting status. For all the "Failed to assign" records the system will provide the description of the failure. The first error encountered will be logged.  The following attempts should be recorded as 'Failed to assign':  - the specified version of the lite model or aggregation rule does not exist in the system;  - the specified node does not exist on the entity set;  - a request to assign a lite model to a non-leaf node;  - a request to assign an aggregation rule to a leaf node;  - a request to assign a lite model to a leaf node that is already being used as a nesting node in an assumption set.  -a request of assigning a lite model/ aggregation rule  that does not belong to the geography from which the user is requesting the bulk assignment.  At the end of the bulk assignment process the log file will be available to the user for download, | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-845 The system shall create a new version of the entity set if the selected version is validated** | | | |
| If the selected version of the Entity Set is "In Review" status it will be updated without changing the version number. The changes will be reflected in the assumption sets where the entity set is assigned to.  If the Entity Set is in status "Validated" the system shall create a new version by increasing the version number of the entity set to the next point digit (+0.1) The new created version will have the status "In Review". | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-846 The system shall record an event for each lite model/ aggregation rule assigned to the entity set in the events table of the entity set** | | | |
| The system shall register one lock event for the entire bulk assignment process.  For each of the lite model/ aggregation rule assigned to the entity set, the system will register a modify event.  This information will be recorded in the events table of the entity set and the system shall record that the assignment was done via bulk upload (as system comments). | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-847 The system shall invalidate the run results of the assumption sets that use the selected version of the entity set** | | | |
| If the entity set is not validated and it is used in assumption set runs or, the system will display a warning message informing the user that if he will proceed with his action, the system will invalidate the assumption set runs.  The warning message will display the complete list of runs that will be invalidated for all the assignments included in the instruction file.  and the runs triggered from the direct parents and grandparents nodes.  The system should not invalidate the runs triggered from lower hierarchical levels nested on the modified entity set.  The system shall:  -cancel the runs before processing and remove them from the queue, if the modification occurs while the run are queued and the status of the selected runs is "Queued".  -invalidate the run only after the run is completed, if the modification occurs during the "Processing" status of the run.  -change the status from "Completed" to "Invalidated" for completed runs.  If the run to be invalidated was triggered through the 'Run Stoch & CS' functionality, the system shall invalidate also the associated Critical Scenario run which was triggered as part of the same batch run.  The system shall record in the log file the runIDs that have been invalidated. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-848 The system shall assign the entity set tag to the lite models/ aggregation rules which are assigned to the entity set** | | | |
| The system shall assign the entity set tag to the lite models or aggregation rules which are assigned to the entity set, only if they do not hold the tag already.  If the entity set is the only source of tag for a lite model/ aggregation rule and the lite model/ aggregation rule is replaced, the  system shall automatically remove the tag from the replaced component.  If the tag removed was the only tag held by the components, the system will assign the default tag "Rejected" to those components which do not have any tag. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-849 The system shall assign the Archive Status to the lite models/ aggregation rules which are assigned to the entity set** | | | |
| The system shall mark for archiving the lite models, and aggregation rules if the tag inheritated from the entity set is marked to be archived and if:  - the tag is the only tag assigned to the component;  -if the other tags assigned to the component are all marked as 'Archive requested'.  The system shall not change the Archive status of the components if there is at least one tag assigned to the component which has the 'Archive?' option set to 'No'.  The system shall mark for restoring the entities assigned if the tag inheritated from the entity set is marked as 'Restore requested'. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-850 The system shall update the Archive status of the replaced components** | | | |
| The system shall update the Archive status of the replaced lite model or aggregation rule if needed:  If the replaced components have other tags assigned with the Archive status set to "Archive requested", the system shall set the Archive status of these components to "Archive requested".  If there is at least one tag assigned to a component marked as 'Restore requested', the system shall leave the Archive status to 'Restore requested'.  If there is at least one tag assigned to the component that is blank and all the other tags have the Archive status different from 'Restore requested', the Archive status of the component is blank. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM014 Download Results of the Bulk Assignment

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | The bulk assignment process is finished. |
| Post-condition | The resulting log file of the bulk assignment process is available to the user in excel format |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an entity set in the entity set summary table.  2. The user selects the option "Download results" from the "Bulk Upload" dropdown list.  3. The system displays a pop-up window listing the available log files:  4. The user selects one log file.  5. The user selects the button "Download".  6. The browser takes over. |
| **Alternate 5.1** | |
| Alternate | If the user selects the option "Cancel" the use case is aborted. |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **RQ-842 The system shall allow the user to assign lite models and aggregation rules to an Entity Set via bulk upload process** | | | |
| The system shall allow the user to upload a .csv file and request to assign the lite model to leaf nodes and aggregation rules to non leaf nodes of the entity structure assigned to the entity set, as specified in the csv file.  The .csv file uploaded should contain a row with the following headers and below the instructions for each lite model or aggregation rule to be assigned to the entity set:  -Entity Set node name:  name of the entity structure's node which is assigned to the selected entity set.  -Lite Model/ Aggregation Rule name: name of the lite model or aggregation rule to be assigned to the node defined above.  -Lite Model/ Aggregation Rule version: version number of the lite model or aggregation rule to be assigned  The name of the file is free format.  The target performance is that the complete bulk assignment process should not take more than 10 seconds.  If a lite model/aggregation rule is already assigned to the specified  The system shall allow the user only to assign "In Review" lite models/aggregation rules that are unlocked or "Validated" lite models/aggregation rules. Only those lite models/aggregation rules that are owned by the user group or that have been shared with it can be assigned to the entity set. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-843 The system shall perform the following checks/ validations against the uploaded .csv file** | | | |
| The system shall perform the following checks and validations:  -Check that the header of the .csv file contains all the attributes. (Refer to Appendix: Bulk Assignment section for the format of the file.)  -Check that the .csv file contains instructions data: at least one line of data information is available.  -Check that the "Entity set node name" column does not contain duplicate node names.  -Check that each row in the .csv file contains a valid values and the data of each attribute is in the correct type. (Refer to Appendix - Bulk Upload section for the format of the values)  -Check that the version of the lite models and aggregation rules  to be assigned to the nodes of the entity set belongs to the owner user group of the user that uploads the .csv file. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-844 The system shall not abort the bulk assignment process if any errors are detected during the assignment process** | | | |
| If any error is raised during the assignment of the lite models and/or aggregation rules, the system shall register the errors in the log file.  The log file is generated by the system as a result of the bulk assignment process and will include all the set of data provided in the <instructions>.csv file and the resulting status of the assigned event for each of the lite models and aggregation rules.  If a lite model/ aggregation rule is successfully assigned to the entity set, the resulting status logged by the system is "Assigned".  In case of an error the system shall not abort the bulk assignment process and register the "Failed to assign" as a resulting status. For all the "Failed to assign" records the system will provide the description of the failure. The first error encountered will be logged.  The following attempts should be recorded as 'Failed to assign':  - the specified version of the lite model or aggregation rule does not exist in the system;  - the specified node does not exist on the entity set;  - a request to assign a lite model to a non-leaf node;  - a request to assign an aggregation rule to a leaf node;  - a request to assign a lite model to a leaf node that is already being used as a nesting node in an assumption set.  -a request of assigning a lite model/ aggregation rule  that does not belong to the geography from which the user is requesting the bulk assignment.  At the end of the bulk assignment process the log file will be available to the user for download, | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |
| **RQ-851 The system shall allow the user to download the result log file of the bulk assignment process** | | | |
| The system shall allow the user to select an entity set and download the bulk assignment log file, produced by the system as a result of the bulk assignment process.  The system shall provide the user with a file that has the following tabular:  - Entity Set node name;  - Lite Model/ Aggregation Rule name;  - Lite Model/ Aggregation Rule version;  - Result status: 'Assigned', 'Failed to assign';  - Error description: in case of a 'Failed to assign'  result status of a record, the system  shall provide the description of the failure;  - Warnings: assumption set runIDs that were invalidated/cancelled as a result of new assignments (applicable if the selected entity set is in status 'In Review').  The naming convention for the name of the log file is the following:  <Bulk Assignment>\_<entity set name>\_<entity set version number>\_<geography>\_<date/timestamp of when the file was uploaded>.xls. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **Unassigned** |
| **From** | : | **Irram Sherwani** |

## ESM015 Bulk Download of LM, AR, Entity structure and entity set parameter files from an Entity Set

### Use Case

|  |  |
| --- | --- |
| **Constraints** | |
| Pre-condition | User has permission “Export Complete Entity Set” |
| Post-condition | The archive file (.zip file) containing the following files is available to user:   * Lite Model creation bulk upload file * Aggregation Rule bulk upload file * LM/AR input files within a zip file * Entity Structure tree file * Entity Set bulk assign file * Nesting node information file (optional) |

|  |  |
| --- | --- |
| **Scenarios** | |
| **Basic Path** | |
| Basic Path | 1. The user selects a version of an entity set in the entity set summary table.  2. The user selects the option "Download bulk files" from the “Download” menu.  3. The system downloads the zip archive file |

### Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| ****RQ-2296 Upon requesting “Download bulk files”, system shall prepare a zip archive with the relevant files**** | | | |
| Upon requesting “Download bulk files”, System shall prepare a zip file containing the following files:   * Lite Model creation bulk upload file * Aggregation Rule bulk upload file * LM/AR input files within a zip file * Entity Structure tree file * Entity Set bulk assign file * Nesting node information file (optional)   **Lite Model creation bulk upload file**  Based on the associated Lite Models to the selected Entity Set, system will prepare the LM bulk upload file in the format ready to be uploaded back to system.  **Aggregation** **Rule creation bulk upload file**  Based on the associated Aggregation Rules to the selected Entity Set, system will prepare the AR bulk upload file in the format ready to be uploaded back to system.  **LM/AR input files**  System will prepare a zip file containing all the necessary input files for the bulk creation of LMs and ARs. To avoid problem with file names uniqueness, the files will be organized within folders and in this way, they will keep their original file names. Under the zip root, system will create one folder per LM/AR using the LM/AR name as folder name. Below each folder will be placed the input files:   * For LM: general parameters and experience parameters files * For AR: parameters file   **Entity Structure tree file**  System will add the Entity Set’s Entity Structure tree file.  **Entity Set bulk assign file**  Based on the associated Lite Models and Aggregation Rules to the selected Entity Set, system will prepare the bulk assign file in the format ready to be uploaded back to system.  **Nesting node information file**  When the Entity Set contains any nodes marked as nesting nodes, system will prepare a simple text file containing those nodes to inform the user why those nodes do not have an assignment. | **Status** | : | **Closed** |
| **Type** | : | **Functional** |
| **Phase** | : | **7.0.0.0** |
| **From** | : | **Irram Sherwani** |

# 2. Appendices

## Bulk Assignment

The .csv file provided for the bulk assignment of lite models and aggregation rules should contain a row with the following headers and underneath that the details for each lite model/ aggregation rule to be assigned to the selected entity set.

All fields should contain one valid value for the associated header. The system shall check that the values are correct each time a data line is being processed. No validation is done upon upload of the file. In case of errors, the system shall log them in the error log file.

|  |  |
| --- | --- |
| **Header Column Name** | **Value** |
| **Entity Set Node Name** | Free text.  This field should contain the name of the entity structure’s node which is assigned to the entity set.  The node name length should not exceed 15 characters and should not include special characters.  The value entered should match the node name of the selected entity set.  Format: <node\_name>. |
| **Lite Model/ Aggregation Rule Name** | Free text.  Name of the lite model/ aggregation rule as stored in the system.  The name length should not exceed 15 characters and should not include special characters.  The value entered should match the lite model’s/ aggregation rule’s name already stored in the system.  Format:<ie\_lite model>. |
| **Lite Model/ Aggregation Rule version** | Free text.  Version number of the lite model or aggregation rule to be assigned.  This field should accept natural numbers in the format:  <xxx>.<xx>. |