HOPEX ASSESSMENT

User Guide

HOPEX V2

INTRODUCTION TO HOPEX ASSESSMENT

HOPEX proposes a mechanism for managing surveys of **HOPEX** users. These surveys enable quantification of characteristics of specific objects for a selected population in a specific context.

Several assessment templates are supplied as standard in **HOPEX** solutions. You can use these templates to create your assessments. You can also duplicate them to enhance and configure them to create your own questionnaire and assessment templates.

To go even further, **HOPEX Power Studio** offers the possibility of creating assessments on other MetaClasses.

☛ *For a more advanced use of assessment features, we recommend you should use **HOPEX Windows Front-End**.*

ASSESSMENT PROCESSES

HOPEX Power Studio enables creation of assessment sessions, running these and analyzing their results. An assessment session can be managed directly or from an assessment campaign.

HOPEX Power Studio offers the possibility of creating new assessments:

- from assessment templates proposed as standard in **HOPEX** solutions
- from new templates.

☛ For more details on the main assessment template debugging process steps, see *"Definition of an Assessment Template", page 53.*

Concepts Overview

Assessments relate to predefined objects: risks or controls for example.

Assessment is a mechanism enabling sending of questionnaires to an identified population to obtain assessments (qualitative or quantitative) on identified objects. The assessment is supplemented by results analysis tools.

Assessment sessions and campaigns

An assessment is based on concepts:

- assessment sessions

  An assessment session is an assessment carried out over a determined time period. When an assessment session is published, a questionnaire is sent to targeted users.

- assessment campaigns

  An assessment campaign enables creation and planning of several assessment sessions over a given time period.

An assessment session is defined by a ***scope*** and a ***questionnaire template***.

The scope of an assessment session is defined by the objects to be assessed, the context of the assessment, and the list of respondents.

A respondent is a person in the enterprise questioned in the context of the assessment. This person should complete the assessment questionnaire and return it.

Questionnaire templates and questionnaires

Assessment ***questionnaires*** are sent to appropriate ***respondents*** .

An assessment questionnaire is a list of questions relating to a particular object and addressed to persons questioned.

Questionnaires of an assessment session are described in a ***questionnaire template*** defined:

- directly in the assessment session:
- in an ***assessment template***.

The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.

A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level. Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.

Quotation rules

Assessment session unitary results are then calculated from respondent answers according to ***Quotation Rules*** defined for the session.

A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn handling the calculation.

Aggregation schemas

Assessment results are then consolidated according to one or several ***aggregation schemas***.

An aggregation schema is a series of steps used to consolidate assessment results according to specified assessment rules.

Assessment Types

There are several ways of running assessments:

- Direct assessment
- assessment by assessment sessions
- assessment by assessment campaigns

Direct assessment

This is an "expert view" assessment.

For more details, see "Direct Assessment", page 46.

Assessment by assessment sessions

This consists of sending questionnaires to respondents.

assessment by assessment campaigns

A campaign comprises different sessions, each with a scope and specific respondents.

Campaigns are used notably in **HOPEX** solutions.

☛ *For more details, see "Using Assessment Campaigns", page 40.*

ABOUT THIS GUIDE

This guide presents how to make best use of **HOPEX Assessment** to implement your own assessment sessions.

The **HOPEX Assessment** guide comprises the following chapters:

- "HOPEX Assessment Overview", page 13
- "Running Assessments", page 19, describes the functions enabling assessment session execution and follow-up.
- "Assessment Templates", page 51, presents advanced functionalities for assessment template creation and configuration.
- "Glossary", page 113, defines terms used.
- "Assessment Workflows", page 109, presents workflows delivered as standard to assure execution of assessment sessions.

ADDITIONAL RESOURCES

This documentation about assessment parameterization can be supplemented by:

- The **HOPEX Common Features** guide, describing the **MEGA** interface of products and solutions.
- The chapter concerning the assessments of each of the guides of the following **HOPEX** solutions.
  - HOPEX Enterprise Risk Management
  - HOPEX Internal Control
  - HOPEX Compliance

    ☛ *These solutions embed the **HOPEX Assessment** module to manage their assessments. However, the **HOPEX Power Studio** product is required to customize the assessment and questionnaire templates as standard with these solutions.*
- The administration guide **HOPEX Power Supervisor** , for management of profiles.
- Technical article **HOPEX Power Studio**.
- the **HOPEX Collaboration Manager** guide, for workflow configuration.

Below is a summary of functions available with each product or option linked to the assessment engine.

Product/Option	Features
HOPEX Assessment	Creation and execution of assessment campaigns and sessions
HOPEX Power Studio	Creation of assessment templates Creation of questionnaire templates Creation and modification of workflow definitions ☛ *Functionalities linked to workflows are described in the **HOPEX Collaboration Manager - Workflows** guide.*

HOPEX Assessment Overview

This chapter describes the **HOPEX Assessment** desktop.

☛ *The majority of procedures in this guide are described from **HOPEX Web Front-End**. More advanced assessment template customization features are described from **HOPEX Windows Front-End**.*

Assessment Profiles and Roles

There are default user ***profiles*** with which rights and accesses are associated.

A profile defines what a person can see or not see and do or not do in tools, and how he/she sees and can do it. The profile defines options, access rights to repositories and products, read/write and read-only rights on objects. All users with the same profile share these same options and rights.

☛ *For more details on managing profiles in HOPEX, see the **HOPEX Power Supervisor** administration guide.*

Object roles are used to define rights on objects, in workflows, for example.

Connection profiles

The profiles below are available on connection to **HOPEX Assessment**.

Profiles	Tasks
Assessment Designer	Responsible for creation of assessment templates and questionnaires.
Assessment Manager	Responsible for creation and follow-up of assessment campaigns and sessions.
Respondent	Completes questionnaires.

☛ *When assessment functions are used in the context of **HOPEX** solutions, the profiles of solutions should be used. For more details, see the user guide corresponding to each solution.*

The object roles

Object roles can appear in the properties page of certain objects.

Role	Tasks
Assessment Template Owner	Has assessment template updating rights.
Assessment Campaign Owner	Has assessment campaign follow-up rights, and rights to create and modify assessment sessions.
Assessment Session Manager	Has rights to create and follow up assessment sessions, and rights to create questionnaire templates.

NAVIGATION TREE OVERVIEW

Depending on the profile with which you are connected, you can access different navigation trees.

Tree	Tree content
Home	Contains libraries used to subdivide content of a repository. They are not simply a means of classifying repository objects: they are real partitions of the repository.
Assessments Definition	Contains all elements describing assessment templates, assessment campaigns and assessment sessions.
Assessments Follow-Up	Contains sessions the user can access. These sessions are classified according to their progress state: "assessments in design" or "assessments in validation" as well as assessments started.
My Questionnaires	Contains questionnaires the user can access. These questionnaires are classified according to their status: "validation in progress" for example.

☛ *Other navigation trees can appear depending on the products available.*

HOPEX Assessment Desktop Presentation

The trees, menus and commands available in **HOPEX Assessment** depend on the profile with which you are connected.

☛ *For more details on profiles, see* *"Assessment Profiles and Roles", page 14**.*

☛ *When assessments are used in the context of **HOPEX** solutions, the desktops used are those available with these solutions. Access paths to functions are different in this case. For more details, see the user guide corresponding to each solution.*

Assessment Designer and Assessment Manager desktops

The Assessment Designer and Assessment Manager can access the following navigation trees:

- **Home**
- **Assessments Definition**: enables access to all:
  - assessment templates

    ☛ *The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.*
  - assessment sessions

    An assessment session is an assessment carried out over a determined time period. When an assessment session is published, a questionnaire is sent to targeted users.
  - assessment campaigns

    An assessment campaign enables creation and planning of several assessment sessions over a given time period.
- **Assessments Follow-Up**: enables follow-up of assessment sessions for which the user is responsible.
- **My Questionnaires**: provides access to the questionnaires in its various stages, for example:
  - assessments in design
  - assessments in validation
  - assessments in delegation

Respondent desktop

The Respondents Manager has the following navigation trees:

- **Home**
- **My Questionnaires**

WORKFLOWS LINKED TO ASSESSMENTS

HOPEXP roposes two methods of starting assessment campaigns, assessment sessions and questionnaires:

- a ***Generic*** method, which describes a process in which different roles intervene to manage steps of the process.
  The corresponding workflows are generic workflows.
- an ***Automatic*** method, which is used for example to execute controls in **HOPEX Internal Control**.

  ☛ *In the case of automatic workflows, the different process steps do nor require the intervention of several profiles. These workflows are simplified versions of generic workflows.*

For more details on workflows used to govern interactions between participants, see "Assessment Workflows", page 109

RUNNING ASSESSMENTS

This chapter describes the steps comprising an assessment session. Progress is managed by standard workflows.

☛ *For more details on assessment session processing steps, see "Assessment Workflows", page 109.*

ASSESSMENT SESSION STEPS

Standard Launch of Assessment Sessions

The following is a summary of assessment session steps.

Preparing assessment sessions

An assessment session can be created by a user with Assessment Designer or Assessment Manager profile.

This user must describe scope of the assessment session:

- assessed objects and characteristics
- objects defining assessment context
- identification of respondents

At assessment session creation, the questions asked of respondents, the answer format and the questionnaire presentation must be defined.

For more details, see "Creating Assessment Sessions", page 22.

Deploying and validating the assessment session

This step is executed by an assessment designer or assessment manager.

Deploying an assessment session consists of preparing all questionnaires sent to the persons questioned.

In the deployment phase, assessment nodes are created from definition elements of the session or its template.

An assessment node is associated with values calculated from answers given in questionnaires by respondents for each of the assessed characteristics. It is created at the time of deployment of the assessment session, or at aggregation. Objects created at deployment are owned by the session and enable determination of the object that will be evaluated, by whom and in which context.

Assessment nodes can be reviewed or deleted and must be validated. This phase defines the exact scope of the assessment session.

For more details, see "Deploying and validating the assessment session", page 29.

Starting assessment sessions

Starting an assessment session triggers sending of questionnaires to respondents, who are notified by e-mail.

Following this start step, respondents can process the questionnaire in the following ways:

- Complete the questionnaire and return it: "Answering a Questionnaire", page 33
- Delegate questions to other persons: "Delegating a Questionnaire", page 34
- Have answers validated by another person

For more details, see "Starting Assessment Sessions", page 32.

Following up assessment sessions

When an assessment session has started, the assessment designer or assessment manager can follow up progress of the assessment session and questionnaires.

For more details, see "Following Up Session Progress", page 36.

Closing the assessment session

This step automatically closes all questionnaires and result calculation.

Calculation of the value of each assessed characteristic is carried out from the answer given by each person consulted. Execution of aggregation enables consolidation of results obtained taking account of the aggregation schema.

For more details, see "Closing the assessment session", page 38.

Variations in the Launch of Assessment Sessions

There are other possibilities for assessment session workflow.

At creation of an assessment session, you may, for example:

- Launch the assessment session immediately, which enables to regroup the following steps:
  - Deploy the session ("Deploying Assessment Sessions", page 29)
  - Validate the session ("Validating Assessment Sessions", page 31)
  - Start the session ("Starting Assessment Sessions", page 32)
- Schedule the assessment session, as soon as possible or at a specific date.

Creating Assessment Sessions

At creation of an assessment session, you must specify:

- Assessment execution period
- Assessment scope
  - List of objects to be assessed and characteristics to be assessed on each object
  - Assessment context: which entities, which sites, etc.
  - Persons to be questioned
- Questionnaire template
  - Questions to be asked
  - Possible answers
  - Questionnaire presentation

Launching Modes for an Assessment Session

HOPEX enables starting assessment in different ways:

- ***From an Assessment Campaign***: characteristics of the session can be inherited from the assessment campaign.

  An assessment campaign enables creation and planning of several assessment sessions over a given time period.

  ☛ *For more details on assessment session starting steps, see* *"Steps of assessment workflow with campaign", page 44**.*

- ***From an Existing Template***: assessment is created from an existing assessment template. All information characterizing the session is described in the template.
  See "Creating Assessment Sessions From an Existing Template", page 23.

  The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.

- Starting from zero ***In Ad-Hoc mode***: the assessment is created simply from lists to be completed so as to specify the scope objects.
  See "Creating Ad-Hoc Assessment Sessions", page 25.

- Starting from zero ***In Expert mode***: this mode is reserved for experts who want to define queries and macros. Assessment is carried out from deployment collections constituting a first step to reuse of object lists defining a scope.
  See "Creating Expert Assessment Sessions", page 27.

Creating Assessment Sessions From an Existing Template

The first steps in the procedure for creating an assessment session are identical irrespective of the selected creation mode.

Creating Assessment Sessions

To create an assessment session:

1. In the **Assessment Definition** tree, select **Assessment Session > New**.
   The session creation page appears.
2. Indicate the **Name** of the session.

   > ☛ *The **Session Manager** is initialized with the name of the user that created the session, but this value can be modified.*

3. Select the **From an Existing Template** option and select the assessment template you want to use.

   > ☛ *For more details on:*
   > - *The **Ad-hoc** creation mode, see "Creating Ad-Hoc Assessment Sessions", page 25.*
   > - *The **Expert** creation mode, see "Creating Expert Assessment Sessions", page 27.*

4. Specify assessment session dates:
   - **Assessment Planned Begin Date** is fixed at today's date
   - **Assessment Planned End Date**.
5. Click **Next**.
6. Select the **Assessed Parameter** that corresponds to the object from which the object list to be assessed will be established.

   > ☛ *In certain assessment templates, the scope can be defined by a tree. For more details, see "Defining assessment scope by tree", page 24.*

   A preview report of the scope calculated for the session is presented for information.

   > ☛ *This window presenting the list of assessment session parameters remains accessible from the **Parameters and Preview** tab of assessment session properties.*

7. Click **Next**.
   The assessement session creation wizard also offers you to start the session.

There are several possibilities:

- only create the session and close the wizard: to do this, click "**Not Now**" then **OK**.
  You can reopen the assessment session properties to view its parameters. See "Viewing session parameters", page 24.
- Start the session "**Now**"
  If you choose this option, you will be able to see the assessment session being launched. This option enables to execute the following workflow transitions at the same time:
  - deploy: "Deploying Assessment Sessions", page 29
  - validate: "Validating Assessment Sessions", page 31
  - start: "Starting Assessment Sessions", page 32
- start the session in batch mode after saving ("**as soon as possible**")
- Start the session later, specifying the date and hour in UTC format ("**scheduled**")

  ☛ *To specify the UTC format date and hour of scheduled execution, click the arrow then **Open**.*

Viewing session parameters

To view parameters of your session:

- Open the properties of the assessment session and select the **Parameters and Preview** tab.
  The report summarizes:
  - the campaign
  - the session, its begin and end dates
  - the list of assessed characteristics
  - the list of objects to be assessed
  - the list of assessment context elements
  - the list of respondents
  - the updated list of assessment nodes

  ☛ *If you modify parameters of your session, click the **Refresh Report** button so that your updates will be taken into account in the report.*

Defining assessment scope by tree

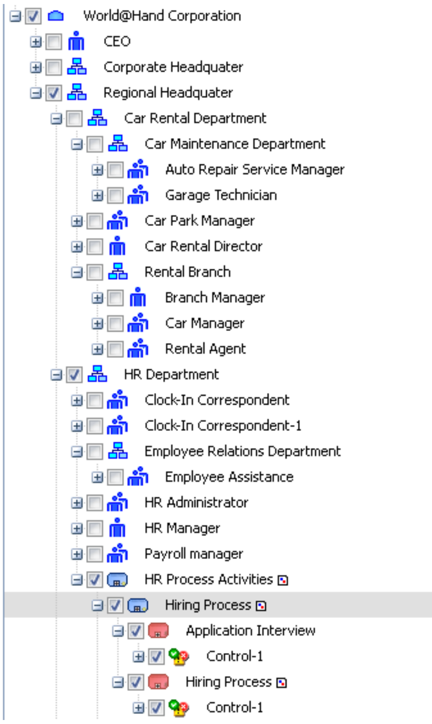
So that this possibility will be proposed, assessment mode must be appropriately configured.

☛ *For more details on this configuration, see "Defining Assessment Template Properties", page 53.*

The tree allows you to select objects assessed ***in their context***.

For example, a control is assessed in the context of elements of the branch from the control up to the root.

☛ *The tree automatically expands if the **Automatic Expand** box is selected.*



In the above example, if you select the "Manage Human Resources" process, all controls and context objects located at a lower level are selected, as well as all parent context objects up to the tree root.

☛ *If you deselect a node of a branch, only the child elements of this branch are deselected.*

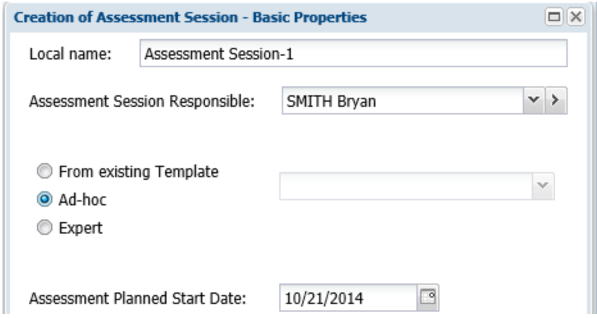
Creating Ad-Hoc Assessment Sessions

Ad-Hoc assessment session creation mode allows you to explicitly define objects characterizing the scope of your session.

To create an assessment session in Ad-Hoc mode:

1. Create a session following the first two steps of the procedure "Creating Assessment Sessions From an Existing Template", page 23.

2. Select **Ad-Hoc** mode:



3. Click **Next**.
4. Complete each of the sections with the objects that interest you:
   - **Assessed Characteristics**

     An assessed characteristic defines what the assessment seeks to assess. It can be associated with a MetaClass, and more specifically with one of its MetaAttributes, for example: Risk MetaClass, MetaAttribute: Criticality.

   - **Assessed Objects**

   The Connect button allows you to select objects by filtering these by assessable object type.

   - (Optional) **Context Objects**

     A context object is an object in the framework of which the assessment is carried out. For example, a risk can be assessed in the framework of an entity, a control can be assessed in the framework of a process).

   - **Assessors**: you may select a ***Respondent*** as well as ***Person Assignments***.

     A respondent is a person in the enterprise questioned in the context of the assessment. This person should complete the assessment questionnaire and return it.

     Person assignment enables specification of the profile to which you wish to address the questionnaire when the same person has several profiles. For example, if a person is both "ERM Business User" and "IC Business User", you may wish to send the questionnaire only in the ERM desktop when assessing risks.

5. Click **Next**.
6. Create a **Questionnaire Template**.

   You cannot connect existing questionnaire templates.

   A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level. Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.

   For more details, see "Questionnaire Contents", page 76.

7. In the dialog boxes that follow, you can:
   - specify the **Quotation Rule** to be applied.

     A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn *handling the calculation.*

For more details, see "Quotation Rules", page 98.

- refine questionnaire template presentation

For more details, see "Defining a Presentation", page 71.

8. Click **OK**.

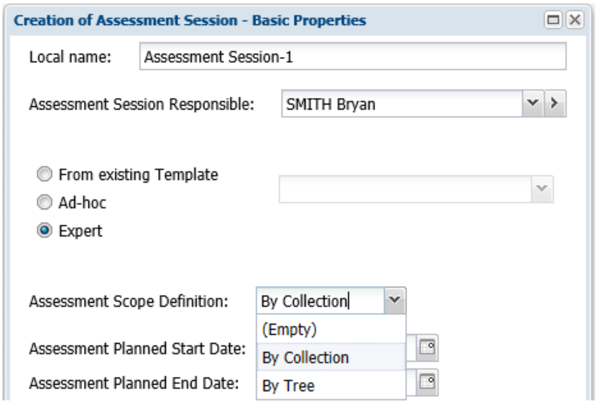
Creating Expert Assessment Sessions

Expert creation mode is reserved for experts who want to use queries or macros to define scope of their assessment session.

To create an assessment session in **Expert** mode:

1. Create a session following the first steps of the procedure "Creating Assessment Sessions From an Existing Template", page 23.
2. Select **Expert**.
3. In the **Assessment Scope Definition** field, specify how you wish to define scope:
   - "By Tree"
   - "By Collection"

For more details on assessment scope definition, see "Defining Assessment Template Properties", page 53.



4. Click **Next**.
5. Complete the list of assessed characteristics explicitly.

For more details, see "Managing Assessed Characteristics", page 55.

6. Complete assessment scope using deployment collections to determine:
   - the list of objects to be assessed
   - the list of objects defining the assessment context
   - the list of respondents

For more details, see "Creating Assessment Deployment Collections", page 58.

7. Click **Next**.

8. Create a **Questionnaire Template**.

For more details, see *"Questionnaire Contents", page 76.*

A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level. Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.

9. Click **Next**.
10. Specify the **Quotation Rules** to be applied as well as a MetaTest if required.

A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn handling the calculation.

For more details, see *"Quotation Rules", page 98.*

11. Click **OK**.

DEPLOYING AND VALIDATING THE ASSESSMENT SESSION

Session deployment consists of preparing sending of questionnaires to users declared as respondents.

☛ *This step is not to be executed manually if you choose to start the session or schedule it immediately after creating it. For more details, see* *"Variations in the Launch of Assessment Sessions", page 21**.*

Deploying Assessment Sessions

Session deployment enables calculation of all possible assessment nodes for the session.

An assessment node is associated with values calculated from answers given in questionnaires by respondents for each of the assessed characteristics. It is created at the time of deployment of the assessment session, or at aggregation. Objects created at deployment are owned by the session and enable determination of the object that will be evaluated, by whom and in which context.

To deploy an assessment session and create the list of assessment nodes for this session:

1. In the **Assessment Definition** navigation tree, expand the **Assessment Sessions** folder.
2. Right-click the session that interests you and select **Deploy**.
   An intermediate window asks when you want to execute deployment:
   - Now
   - As soon as possible (after dispatch of your transaction)
   - At scheduled date and time

   ☛ *The deployment operation can take some time. For this reason, a deferred execution option is available.*

   When deployment is executed, the session automatically takes status "To Be Validated".

The session manager can then review this list of assessment nodes to remove certain of these or modify parameters.

Defining assessment session scope

Having deployed the assessment session, you can define the scope, that is select the assessment nodes you want to include in your session.

☛ *By default, all assessment nodes are taken into account.*

Accessing effective scope

To access the list of calculated assessment nodes:

- Open the properties of the assessment session and select the **Effective Scope** tab.
  The list of assessment nodes appears. The following information is presented in columns:
  - Validity for assessment - "Valid" is the default value
  - The objects defining the assessment context
  - Assessed object
  - Respondent

Modifying effective scope

From the **Effective Scope** tab of a session, you can:

- delete or add assessment nodes
- validate or unvalidate assessment nodes
- modify the defined respondent

☛ *If you have defined the scope on the assessment campaign, you do not necessarily need to redefine it on the assessment session.*

Duplicating assessment nodes

This function allows you, for example, to define several respondents for the same object in the same context.

To duplicate assessment nodes:

1. In the properties of the session, select the **Effective Scope** tab.
2. Select the elements that interest you and click **Duplicate**.

Defining respondents

To define respondents:

1. In the properties of the session, select the **Effective Scope** tab.
2. Select the elements that interest you and click **Set Respondent**.

Unvalidating assessment nodes

To unvalidate assessment nodes:

1. In the properties of the session, select the **Effective Scope** tab.
   The list of assessment nodes from your deployment appears.

   ☛ *These are basic assessment nodes that will then be used to create corresponding assessment nodes used at execution of the aggregation schema.*

2. Select the assessment nodes you want to remove from the session and click **Unvalidate**.

Validating Assessment Sessions

The effect of assessment session validation is to:

- freeze its parameters
- generate questionnaires, without however sending these to addressees.

An assessment questionnaire is a list of questions relating to a particular object and addressed to persons questioned.

Validating sessions and generating questionnaires

To generate questionnaires:

1. In the **Assessments Follow-Up** navigation tree, expand the **Assessment Design** tab and select **Assessments in Validation**.
   The list if sessions of status "To Be Validated" appears in the edit area.
2. Right-click in the session in question, then select **Assessment Session (To Be Validated) > Validate**.
   All questionnaires are created with status "To Send". This operation can take several minutes.

You can now view questionnaires that have been generated.

Viewing Generated Questionnaires

To view generated questionnaires:

- In the properties page for the assessment session, **Questionnaires** tab, click **Display Questionnaires**.

It is recommended that the assessment session be validated just before starting the session. If you validate too early, information concerning respondents could be not up-to-date.

Regenerating Questionnaires

Having regenerated the questionnaires and before starting the assessment session, you can:

- view the questionnaires: see "Viewing Generated Questionnaires", page 31.
- modifying respondents

To regenerate the questionnaires after modifying respondents:

- Right-click the assessment session concerned and select **Assessment Session (To Start) > Regenerate Questionnaires**.

You can now start the assessment session. See "Starting Assessment Sessions", page 32.

Starting Assessment Sessions

☛ *This step is not to be executed manually if you chose to start the session or schedule it immediately after creating it. For more details, see* *"Variations in the Launch of Assessment Sessions", page 21.*

The effect of starting an assessment session is to send questionnaires to respondents.

Prerequisites to session launch

The creation wizard checks from different creation modes (from a template, ad-hoc or expert) that conditions are met to deploy nodes and generate questionnaires.

The definition of an assessment session done through an assessment template must contain at least:

- An assessed characteristic
- An assessment object deployment collection
- A respondent deployment collection
- A questionnaire template
- A question
- A parameter value in the creation wizard if a deployment collection requires a value.

Sending questionnaires to respondents

To send questionnaires to respondents:

1. In the **Assessments Follow-Up** navigation tree, expand the **Assessment Design** folder and select **Assessments To Be Started**.
   The list if sessions of status "To Be Started" appears in the edit area.
2. Click the session that interests you, then click **Assessment Session > Start**.
   The session activation page appears.
3. Click the **Save** button at top of the page.
   The session effective start date is updated.

   The assessment questionnaires are sent to respondents defined in the assessment session perimeter.

Completing Questionnaires

To reply to a questionnaire, you must connect to the **HOPEX Web Front-End** application with the profile "Respondent".

☛ *In **HOPEX** solutions, you must use the "Business User" profile.*

☛ *For more details on questionnaire processing steps, see "Questionnaire Generic Workflow", page 111.*

Accessing Your Questionnaires

After starting an assessment session, questionnaire addressees receive a notification.

To complete questionnaires:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Execution**.
   The list of questionnaires of which status is "To Be Completed" appears.
2. Right-click the questionnaire in question and select **Open**.

   ☛ *Questionnaires are visible from this menu as long as the assessment session is not closed. If the assessment session is closed, you can consult them in the **Questionnaires** tab of the assessment session.*

Managing Your Questionnaires

Having consulted content of a questionnaire, the respondent can:

- **Close** the questionnaire without answering.
- **Request Transfer** of the questionnaire to another respondent.

  ☛ *For more details, see "Making a Transfer Request", page 34.*
- **Delegate** all or part of a questionnaire to another person.

  ☛ *For more details, see "Delegating a Questionnaire", page 34.*
- Accept the questionnaire and answer.

  ☛ *For more details, see "Answering a Questionnaire", page 33.*

Answering a Questionnaire

To complete questionnaires:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Execution**.
   The list of questionnaires of which status is "To Be Completed" appears.
2. Select the questionnaire that interests you and click **Display Questionnaire**.

3. Select the questions in turn and reply to these in the lower part of the window.
4. Click **Save**.
5. Close the questionnaire display window.
6. Click the questionnaire in the questionnaires list and select **Assessment Questionnaire (To Be Completed) > Submit Answers**.

Delegating a Questionnaire

You may need to delegate all or part of a questionnaire to a third party (if for example you are not the person best qualified to answer certain questions).

You may delegate:

- Questions

  ☛ *To parameterize question delegation, see* *"Questions and Answer Types", page 77.*

- Question Groups

  ☛ *To parameterize delegation, see* *"Creating Question Groups", page 85.*

- the whole Questionnaire.

  ☛ *To delegate a questionnaire, it must be possible to delegate at least one question.*

To make it possible to delegate a question, see "Questions and Answer Types", page 77. A **Delegation allowed** field must me completed.

The person which receives the delegated questionnaire see all the questions but she can only answer those which were delegated.

Making a Transfer Request

If you receive a questionnaire in error, you can ask the session manager to transfer the questionnaire to another person.

To make a transfer request:

1. Select **Home > My Desktop > Questionnaires and Check-Lists > My Assessment Questionnaires**.

   ☛ *In some of the solutions, the corresponding menu is as follows:* ***Home > My Desktop > My Responsibilities > My Assessment Questionnaires****.*

2. Click the icon of a questionnaire and select **Assessment Questionnaire (To Be Completed) > Transfer Request**.
   The questionnaire passes to status "To Reassign".
   The manager is informed by e-mail and must reassign the questionnaire to another person.

   ☛ *Transfer requests are exceptional if execution campaign creation preparatory work has been correctly carried out.*

Closing Questionnaires

Having selected the appropriate check boxes, several choices are proposed to the respondent:

- **Save**: to save answers without sending these immediately; this allows return to the questionnaire for completion later.
- Submit answers for validation by the session manager.

A questionnaire can be opened and closed several times before submission.

To submit a questionnaire:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Execution**.
   The list of questionnaires of which status is "To Be Completed" appears.
2. Select the questionnaire that interests you and click **Assessment Questionnaire (To Be Completed) > Submit Answers**.

Viewing the Score of a Questionnaire

This menu is available if the questionnaire template designer has authorized it.

☛ *To make this menu available, see "Defining a Presentation", page 71*

It enables the respondent to view values calculated from his/her answers.

FOLLOWING UP SESSION PROGRESS

Consulting Reports

To consult progress of an assessment session and its results:

- Open the properties page of the assessment session and select the **Reporting** tab.

Validating Assessment Questionnaires

To access the list of assessment questionnaires completed by respondents:

1. In the **My Questionnaires** navigation tree, expand the **Questionnaire Management** folder and select **My Questionnaires in Validation**.
   The list of questionnaires of which status is "To Be Validated" appears.
2. Select the questionnaire that interests you and click **Display Questionnaires**.
   Content of the questionnaire appears in a new tab. You can view answers.
3. Close the questionnaire display window.
4. If you consider that the questionnaire has been correctly completed, click its icon and select **Assessment Questionnaire (To Be Validated) > Validate**.
   The questionnaire is closed and results are automatically calculated.

Asking a respondent to modify answers

If the answers to a questionnaire are not suitable, you can ask the respondent to modify them.

To make a modification request:

- Click the icon of a questionnaire and select **Assessment Questionnaire (To Be Validated) > Ask For Modification**.

  ☛ *The respondent can modify his/her answers. See "Completing Questionnaires", page 33.*

Reassigning questionnaires

If a respondent has made a transfer request, you must reassign the questionnaire.

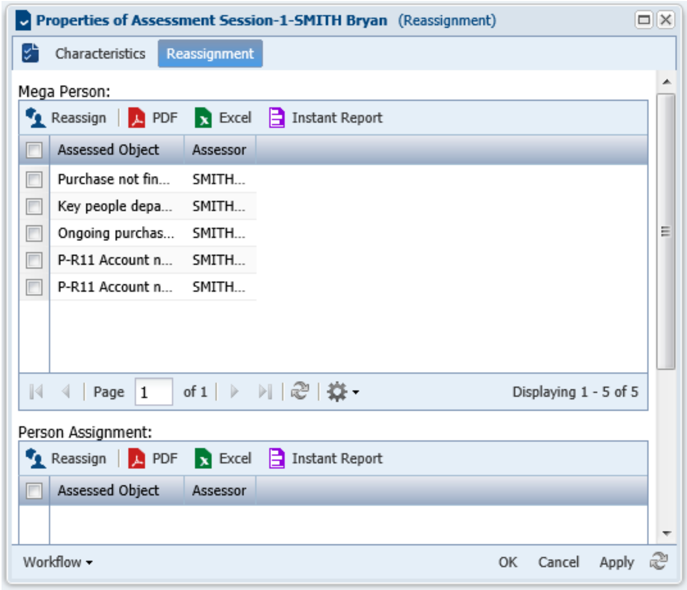
To reassign a questionnaire:

1. From the list of questionnaires sent, select a questionnaire.

   ☛ *The questionnaires are accessible from different menus according to the desktop used:*

   - *With the **MEGA** solution, you can access the questionnaires using the **Campaign Management** navigation tab.*
   - *On the assessment questionnaire laptop, the questionnaires are accessible from the **My Questionnaires** navigation pane.*

2. Open the properties dialog box of the questionnaire concerned and select the **Reassignment** tab.



   ☛ *This tab only appears when the questionnaire has "To Reassign" status.*

3. Select all nodes to be assessed and click the **Reassign** button.
4. Using the search page that opens, select a questionnaire and click **OK**.

   ☛ *If person assignments have been specified (for example, the questionnaire should be sent to a person in the context of a business role in particular), you can reassign the questionnaire in the section provided for this purpose.*

   The new respondent appears in the **Correspondent** column.

5. Select the icon of the questionnaire and select **Assessment Questionnaire (To be Reassigned) > Reassign**.

The new respondent receives an e-mail. He/she can complete the questionnaire, status of which is again "In Progress", then submit answers.

Closing the assessment session

You can close an assessment session at any time, whether or not the respondents have completed their questionnaires.

To close an assessment session:

1. In the **Assessments Follow-Up** navigation tree, select **Assessments Started > Assessments Started**.
   The list if sessions of status "In Progress" appears in the edit area.
2. Click the session that interests you, then click **Assessment Session > Close**.
   All questionnaires are automatically closed. This operation can take several minutes.

   ☛ *Results are valid only if the session is closed.*

The effective end date is automatically updated.

Calculation of the value of each assessed characteristic is carried out from the answer given by each person consulted.

Execution of aggregation enables consolidation of results obtained taking account of the aggregation schema.

Managing Questionnaires Sent

The Respondents Manager can access questionnaires sent and distinguish the different stages of their processing.

Accessing questionnaires

HOPEX Assessment enables access to questionnaires:

- sent in the context of a session

  ☛ *This session should be in progress so that questionnaires appear here.*

- already completed by respondents
- not yet completed

  ☛ *Access to these menus can vary depending on the solution used. For more details, see the corresponding user guide.*

Questionnaire statuses

There are two types of questionnaire status:

- a specific non-technical attribute
- a generic technical attribute

  ☛ *For more details on these workflow statuses, see the* ***HOPEX Collaboration Manager - Workflows*** *guide, chapter "Configuring Workflows", paragraph "Workflow Advanced Parameters".*

Questionnaire specific attribute

The specific non-technical attribute enables grouping of several technical statuses. It allows the end user not to distinguish between different technical statuses (Closed, Closed with validation, Closed automatically, etc.).

The specific attributes available are the following:

- Canceled
- Closed
- Delegated
- In progress
- To reassign
- To send
- To be validated

Questionnaire technical attribute

To supply lists of questionnaires (for example "Questionnaires Sent"), technical status of the questionnaire is checked.

> ☛ *If you duplicate the questionnaire workflow, confirm that you have specified the possibility of updating the technical attribute, even if this is not visible to the user.*

USING ASSESSMENT CAMPAIGNS

An assessment campaign enables creation and planning of several assessment sessions over a given time period.

☛ *For more details on assessment session processing steps, see* *"Assessment Campaign Generic Workflow", page 110.*

Creating Assessment Campaigns

You can create an assessment campaign:

- ***From a template***
  Creating a campaign from a template allows:
  - factorization and application of the same template to all assessment sessions
  - campaign planning and distribution of elements to be controlled between the different assessment sessions
- ***without a template***
  Creation of a campaign without a template offers greater flexibility and enables definition of a different template in each session.

To create a campaign:

1. In the **Assessment Definition** tree, select **Assessment Campaign > New**.
   The campaign creation page appears.
2. In this page, indicate:
   - the **Campaign Owner**
   - the **Assessment Template**
   - a **calendar**

     ☛ *A calendar comprises calendar periods, which are necessary for creation of campaign scope. Use of a calendar is therefore mandatory if you want to define campaign scope for self-assessment of controls.*
   - a **Begin Date** and **End Date**
3. Click **Next**.
4. If you have selected an assessment template, select the **Assessed Parameter** that corresponds to the object from which the object list to be assessed will be established.

   ☛ *Depending on the assessment template selected, there may be no parameter to be assessed to define the scope.*

5. In the preview window, click **Refresh the Report**.
   Elements that will be assessed appear.

   In particular, you can view:

   - assessed characteristics (defined in the assessment template)
   - assessed objects (controls)
   - the context objects (processes or entities, for example)
   - assessment nodes, corresponding to objects to be assessed placed in different context objects, associated with respondents.
   - respondents
6. Click **OK**.

Deploying Assessment Campaigns

Campaign deployment consists of creating assessment nodes with a view to planning campaign sessions.

> *An assessment node is associated with values calculated from answers given in questionnaires by respondents for each of the assessed characteristics. It is created at the time of deployment of the assessment session, or at aggregation. Objects created at deployment are owned by the session and enable determination of the object that will be evaluated, by whom and in which context.*

> ☛ *The deployment of an assessment campaign is not mandatory. You can validate the campaign directly. For more details, see* *"Validating Assessment Campaigns", page 42**.*

To deploy a campaign:

1. In the list of campaigns, click the icon of the campaign you created and select **Assessment Campaign (In Preparation) > Deploy**.
2. In the deployment window, indicate that you want to deploy the campaign **Now**.

   > ☛ *This choice means that the campaign takes status "To Be Planned" immediately.*

   The other choices are:

   - as soon as possible (after dispatch)
   - at a later date
3. Click **OK**.
   The assessment nodes are created.

You can now define assessment campaign scope. See "Defining assessment campaign scope", page 41.

Defining assessment campaign scope

Having deployed the assessment campaign, you must validate the scope, that is, select the assessment nodes you want to include in your campaign.

To access the campaign scope and validate the assessment nodes:

1. In the properties of the campaign, select the **Effective Scope** tab.
   The list of assessment nodes from your deployment appears.

2. Select the values you want to remove from the campaign and click the **Validate** button.

You must also specify respondents.

> ☛ *For more details on scope modification, see* *"Modifying effective scope", page 30**.*

Planning Assessment Campaigns

When campaign scope has been defined and validated, the session is in "To Be Planned" status. You can then plan campaign sessions.

This consists of distributing assessments between the different assessment sessions.

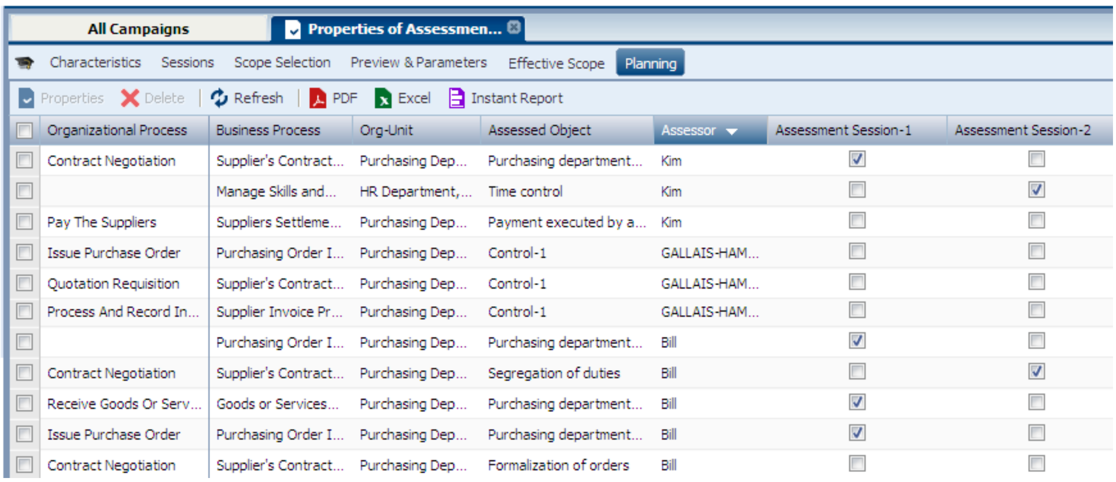
To plan the campaign:

1. In the properties of the assessment campaign, select the **Planning** tab.

> ☛ *The **Planning** tab is visible only when assessment sessions have been created.*

2. In the right pane, select the assessment sessions in which you want to assess which object in its context (process or entity for example).

> ☛ *If you don't see the previously created assessment sessions, click the **Refresh** button.*



> ☛ *Respondents are specified at step* *"Defining assessment campaign scope", page 41**.*

Validating Assessment Campaigns

When you have planned the assessment campaign, you must validate it.

> ☛ *You must validate the campaign even if you have not deployed and scheduled it.*

The effect of assessment campaign validation is to freeze its parameters (for example scope or planning).

To validate the campaign:

- Click the campaign icon and select **Assessment Campaign (In Preparation) > Validate**.

You can now prepare start of assessment sessions. See "Creating a Session From a Campaign", page 43.

> *When the assessment campaign has been validated, you can no longer create assessment sessions. You can however validate the scope of assessment sessions after campaign validation.*

Creating a Session From a Campaign

You can create an assessment session from a campaign if the campaign is not started automatically.

> *An assessment campaign enables creation and planning of several assessment sessions over a given time period.*

> *For more details, see: "Using Assessment Campaigns", page 40*

If an assessment template is connected to the campaign, the session is created from this template. Otherwise, you must specify the creation mode of the assessment session.

To create an assessment session from a campaign connected to an assessment template:

1. Open the properties page of the campaign and select the **Sessions** tab.
   A report on planning of sessions in progress appears at the top of the edit area.
2. In the **Assessment Session** section, click **New**.
   The session creation page appears.
3. Indicate the **Name** of the session.
4. The **Session Manager** is initialized with the name of the user that created the session, but this value can be modified.

   > ***Assessment Planned Begin Date** is fixed at today's date*

   > ***Assessment Planned End Date** is fixed at the campaign end date*
5. Click **Next**.
6. Select the name of the entity (or process, depending on the assessment template used) from which the list of objects was established.
7. Click **Next**.
   A preview report of scope calculated for the session is presented for information.

   > *This window presenting the list of assessment session parameters remains accessible from the **Parameters and Preview** tab of assessment session properties.*
8. Click **OK**.

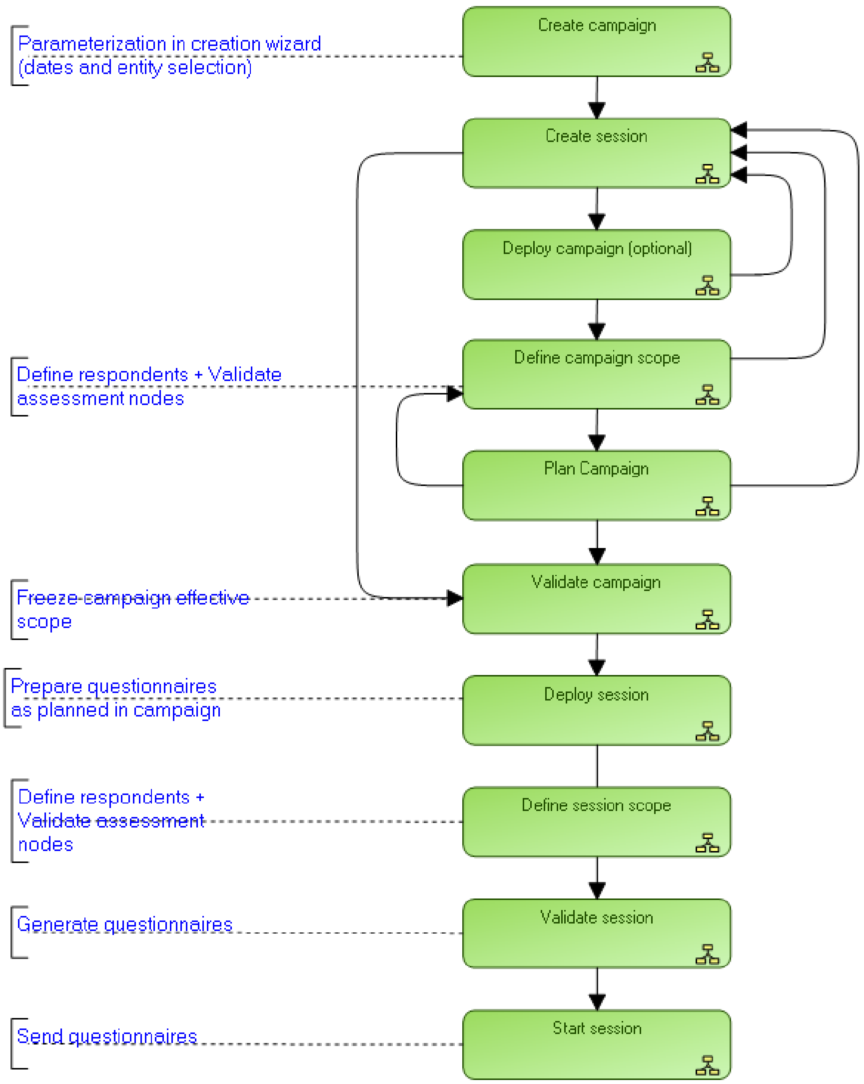
Having planned and validated your campaign, you can deploy assessment sessions created from the campaign.

Session deployment consists of preparing creation of questionnaires to users.

Steps of assessment workflow with campaign

Below is an example of progress of an assessment workflow in the context of starting sessions via a campaign.

It is the “step-by-step” workflow. There are other possibilities for assessment session workflow. For more details, see "Variations in the Launch of Assessment Sessions", page 21.



Standard Assessment Workflow

DIRECT ASSESSMENT

Direct assessment is an "expert view" assessment. It does not use the assessment sessions mechanism.

☛ *For configuration of direct assessment, see* *"Aggregation Schemas", page 100.*

Direct assessment context objects

Direct assessment is carried out for all context objects available in the **Scope** section of properties of the object to be assessed (for example an entity).

Assessing objects

To directly assess an object:

1. Open the properties of the object to be assessed.
2. Select the **Assessment** tab, then click **Assess**.
3. In the wizard that appears, select nodes to be assessed.

   An assessment node comprises:
   - *an object to assess*
   - *one or several context objects (entity for example)*
4. Click **Next**.
   You can select values that characterize this contextualized object.

   ☛ *Other questions can be asked if your administrator has configured the questionnaire supplied as standard. For more details, see* *"Aggregation Schemas", page 100.*
5. Specify the measure date in the calendar.
   By default this is today's date.

   ☛ *You can select a date earlier than today's date.*
6. Click **OK**.
   Measures are created for each assessment node (ie. the object to be assessed in a particular context).

You can create several measures on different dates in the same way. As you create measures, the list can become lengthy. In this case, it can be useful to group measures by date in order to easily find those that interest you.

☛ *To group by date, click the arrow at extreme right of the header of the **Date** column and select **Group by this field**.*

Modifying values specified at object assessment

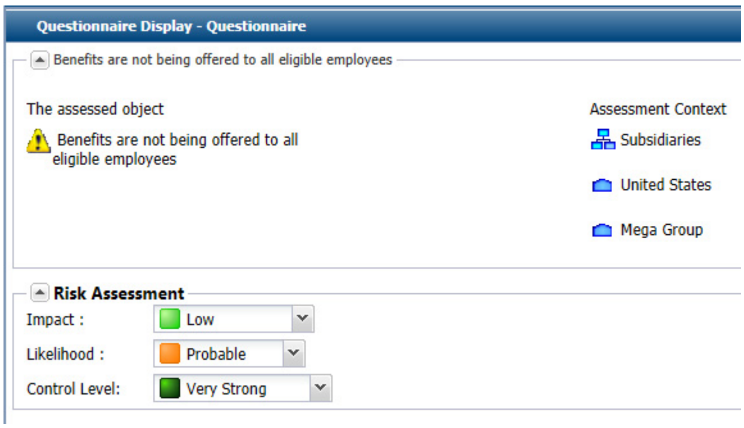
The manager can view answers entered by the respondent when performing direct assessment. He/she can also decide to modify values calculated from these answers if he/she considers them inappropriate.

To view answers used to calculate assessed characteristics values:

- In the **Assessment** tab of the assessed object properties, right-click the measurement that interests you and select **Display Node**.

  ☛ *This menu is not available in the context of multiple assessment.*

  Answers used as the basis for calculation of values appear. They are in read-only only.

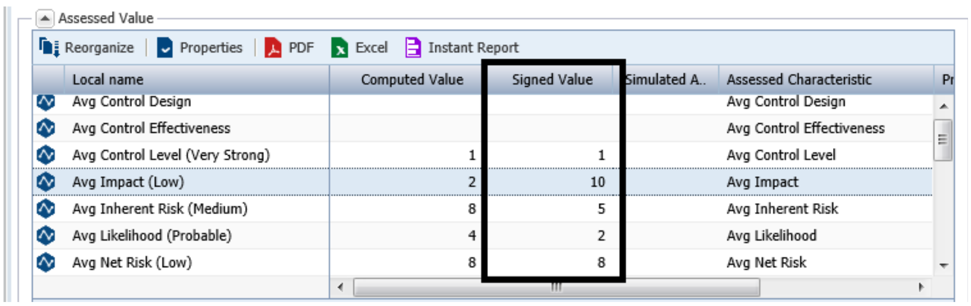


The responsible/manager can decide to modify values resulting from answers.

To modify assessed characteristics values:

1. Open the properties of the assessment you want to modify.
2. Modify values in the **Signed Value** column for each assessed characteristic value.
   These values replace values calculated from answers given by the respondent.

   ☛ *Initial values are visible in the **Calculated Value** column.*



☛ *The values specified in the **Signed Value** column are not used in reports supplied by default. You can however call a **MEGA** professional to include these values in your questionnaires.*

Assessing several objects simultaneously

If you have to assess several objects, it can be quicker to use the multiple assessment table. This table allows you to assign the same value to several assessment nodes of different objects.

An assessment node comprises:

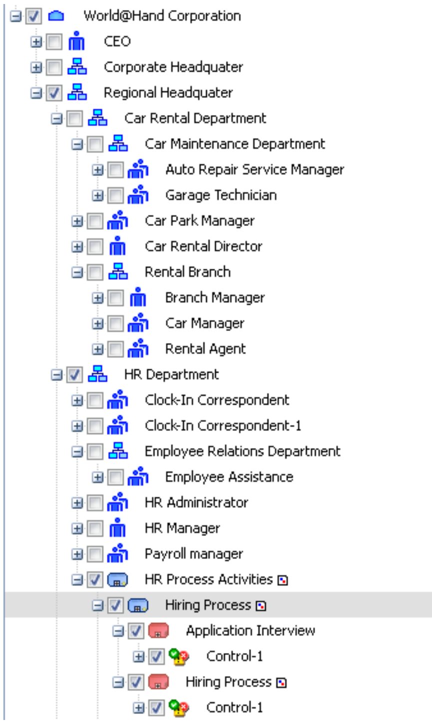
- *an object to assess*
- *one or several context objects (entity for example)*

Assessing several objects simultaneously

To assess several objects simultaneously:

1. In the solution concerned, click **Direct Assessment > Multiple Assessment Table**.
2. Click **Connect objects to evaluate**.
   The wizard that appears proposes for example a tree of entities to which are attached the assessed objects.

3. Select an entity.
The tree expands automatically and allows you to select objects assessed ***in their context***.
An object is assessed in the context of elements of the branch from the object up to the root.



*Example of tree proposed in **HOPEX Internal Control***

```
In the above example, if you select the "Manage Human
Resources" process, all controls and context objects
located at a lower level are selected, as well as all parent
context objects up to the tree root.
```

☛ *If you deselect a node of a branch, only the child elements of this branch are deselected.*

4. Click **OK**.
The list of objects to be assessed in a particular context appears.
5. Answer the questions asked.
6. When values have been specified, select the assessed nodes and click **Validate Assessment**.
7. Modify the effective measure date if necessary and click **OK**.

☛ *By default the measure date is today's date. You can select a date earlier than today's date.*

The effect of validation is to automatically create an assessment in the **Assessment** tab of the properties of the object to be assessed.

Assessing objects on different dates

You can at any time decide to assess objects that have already been assessed.

To reassess the objects in their context:

1. In the solution of the product concerned, select **Direct Assessment > Multiple Assessment Table**.
2. Click **Connect objects to evaluate**.
3. Select the same assessment nodes as those previously assessed.

   ☛ *For more details, see "Assessing several objects simultaneously", page 47.*

   A dialog box invites you to proceed with a new selection of objects to be assessed
4. Select **Yes**.
   The previous values corresponding to each assessment node are proposed.
5. Keep these previous values or modify them as required, then click **Validate**.
6. Enter a date for the new measure and click **OK**.
   The most recent measure values appear in the multiple assessment table.

The different measures appear in the **Assessment** tab of the properties of each assessed object.

ASSESSMENT TEMPLATES

To create an assessment template, you must connect to **HOPEX Windows Front-End** to access all tools required for advanced use. You must connect with a user with "Assessment Designer" role".

An assessment template is defined from the following information:

- ***Characteristics to be assessed*** on each of the scope objects
  See "Managing Assessed Characteristics", page 55.
- The ***Scope*** specifies in a precise way:
  - Persons to be questioned.
  - List of objects to be assessed.
  - The context in which the objects are assessed

  See "Assessment Template Scope", page 58.

  `A context can, for example, be defined by a list of entities, sites or processes.`

  ☛ *Defining the scope allows you to answer the questions "Who - What - Where".*
- The ***questionnaire template***: specifies the questions and their presentation.
  - List of questions and possible answers.
  - Mandatory character of questions.
  - Questionnaire display options (list or table for example).

  See "Questionnaire templates", page 69.
- The ***quotation rules*** define the list of answers used to calculate an assessment characteristic value by specifying the plug-in that performs the calculation. See "Quotation Rules", page 98.
- The ***aggregation schema*: defines the aggregation method of values obtained by the assessment.

This chapter covers the following points:

Definition of an Assessment Template

The assessment template defines the assessment scope, the questionnaire template to be used, and if required, the aggregation schemas to be applied for interpretation of global results. The assessment template can also supply deployment queries activated from one session to another to better determine the scope of objects to be assessed, the context and even the respondents.

Creating an Assessment Template

In the course of assessment template creation, you will define in particular:

- the assessment mode
- how its scope is defined

☛ *We recommend creation of assessment templates in* ***HOPEX Windows Front-End****.*

To create an assessment template:

1. In HOPEX Windows Front-End, open the **Assessments Definition** navigation tree.
2. Right-click the **Assessment Template** folder and select **New > Assessment Template**.
   The assessment template creation dialog box opens.
3. If required, enter the name of the **Library** owner of the template.

   ☛ *For more details on the use of libraries, see the* ***HOPEX Common Features*** *guide.*
4. Indicate the template **Name,** for example "Risk Impact Assessment".
5. Click **OK**.
   The assessment template created appears in the list of assessment templates.

Defining Assessment Template Properties

To specify assessment template properties:

1. Open the properties of the assessment template.
2. (Optional) Modify the name of the **Assessment Template Owner**.

   ☛ *By default this is the assessment template creator.*

The following properties should be specified:

- the assessment mode
- the assessment scope definition mode

Assessment mode

Assessment mode can be:

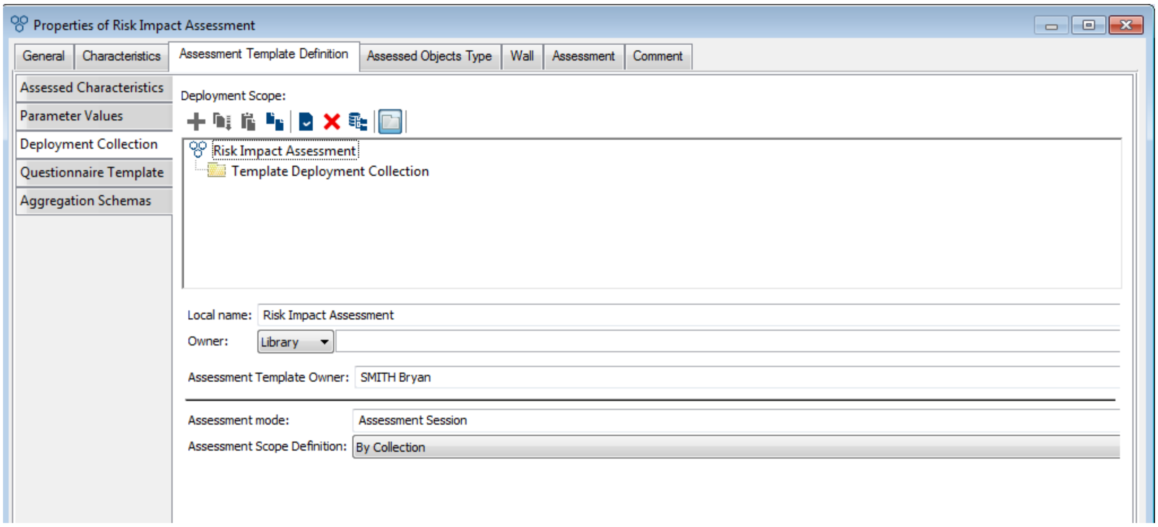
- ***Assessment Session***: to be used for assessments via assessment sessions.
- ***Expert Assessment***: to be used for direct assessments.

Defining assessment scope

- ***By Tree***, to use a tree in selection of objects to be assessed.

  ☛ *For more details on the use of this option, see , see "Defining assessment scope by tree", page 24.*

- ***By Collection***, to define the list of objects to be assessed directly, or by using macros or queries.



Specifying Assessed Object Type

In the standard version, MetaClasses that can be assessed are:

☛ *All of these MetaClasses inherit from the "Assessable Object" abstract MetaClass. To declare that objects of a MetaClass can be assessed, the MetaClass must inherit "Assessable Object".*

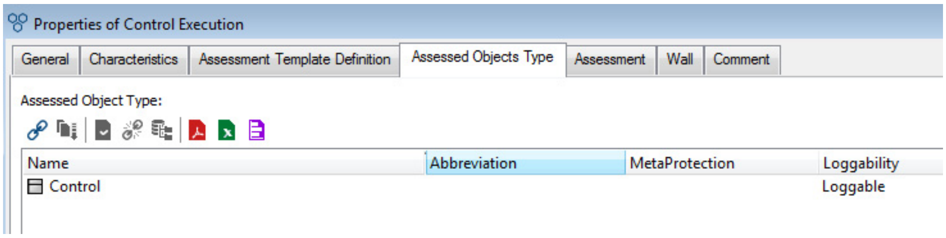
To specify the object types to be assessed in the framework of assessment sessions:

1. Open the properties of the assessment template.
2. Select the **Assessed Object Types** tab.
3. Click the **Connect** button.

4. Select the MetaClasses of objects to be assessed and click **Connect**.

   `For example, select the Risk object type.`

   The object types appear in the list.



Managing Assessed Characteristics

An assessed characteristic defines what the assessment seeks to assess. It can be associated with a MetaClass, and more specifically with one of its MetaAttributes, for example: Risk MetaClass, MetaAttribute: Criticality.

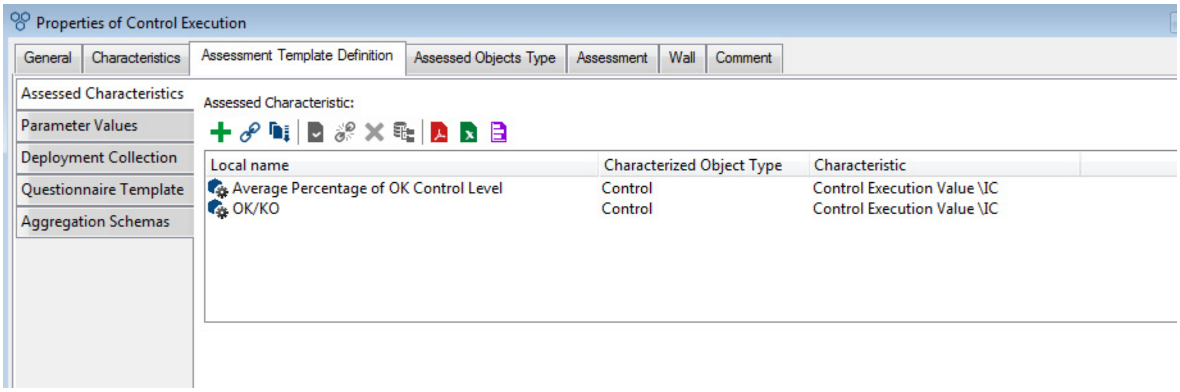
An assessed characteristic relates to a characteristic of an object type.

`You can for example create a "Risk Impact" assessed characteristic relating to the Risk MetaClass and the Impact MetaAttribute.`

Creating an assessed characteristic

To create an assessed characteristic:

1. In the properties page of an assessment template, select the **Assessment Template Definition > Assessed Characteristics** tab.
2. Click the **New** button.
3. In the creation dialog box, indicate the **Name** of the characteristic you want to create.



4. In the properties of the assessed characteristic, indicate the **Owner** of the characteristic (ie. a library).

   ☛ *An assessed characteristic can be used by several assessment templates; it is important to classify these in libraries to find them easily. For more details on the use of libraries, see the **HOPEX Common Features** guide.*

Specifying the object type and the corresponding MetaAttribute

To specify the object type and the MetaAttribute concerned by the assessed characteristic:

1. In the properties page of the assessed characteristics, in the **Characterized Object Type** field, specify the MetaClass to which the characteristic relates.

   ☛ *For more information on proposed MetaClasses, see* *"Specifying Assessed Object Type", page 54.*

2. In the **Characteristic** field, specify the MetaAttribute representing the assessed characteristic.

   ☛ *An assessed characteristic can be common to several assessment templates or sessions.*

Updating the MetaClass MetaAttribute

When the assessment session window is closed, the quotation rules are applied to calculate the value of the assessed characteristic.

HOPEX is used to update the MetaAttribute of the assessed object and to define how to perform this update at the time of deployment or aggregation (if there are more than one context objects).

To define how to update the MetaAttribute:

- In the properties page of the assessed characteristic, in the **Update MetaAttribute by Macro** field, specify if you want to:
  - copy the value of the assessed characteristic.

    ☛ *This option is valid if only one person answers the questions, for example, within the context of a direct assessment: a single characteristic value is obtained and copied in the attribute concerned.*

  - calculate the average of the assessed characteristic values

    ☛ *This option is valid if more than one person answers the questions: a number of assessed characteristics are obtained for the MetaAttribute concerned.*

  - apply a specific macro: if you select this option, select the **Update MetaAttribute by Macro** field to specify the macro that you want to use.

    ☛ *An assessed characteristic can be used in several assessment templates. The macro is the same irrespective of the assessment template used.*

If you want to implement a specific macro, the function must include the following parameters:

- Assessment session
- Assessment node
- Assessed object
- Value of the assessed characteristic.
- Metaattribute

Specifying the display mode as a list

You can specify, in the object lists that display the characteristics of an assessed object in columns, whether the assessed characteristic must be:

- displayed
- masked
- read-only

To do this:

- In the properties page of an assessed characteristic, in the **List View Display Mode** field, select the associated value.

Assessment Template Scope

The scope of an assessment template is used to specify:

- respondents
- the list of objects to be assessed
- the context in which objects are assessed

To define this scope, you must create assessment ***deployment collections***:

Assessment scope elements	Question to which the object type responds
Respondents	***Who?***
Objects to assess	***What?***
Context objects	***Where?***

☛ *A deployment collection can comprise both:*

- *the objects to be assessed*
- *the respondents.*

To access deployment collections:

- In the properties page of an assessment template, select **Assessment Template Definition > Deployment Collection**.

A deployment collection identifies objects from:

- an ***object list***
- a ***tree***

  ☛ *The deployment collection defined by a tree is available if the assessment scope definition is set to "By Tree"; for more details see* *"Defining Assessment Template Properties", page 53**)*

- a ***query***
- a ***macro***
- a ***macro with parameter***

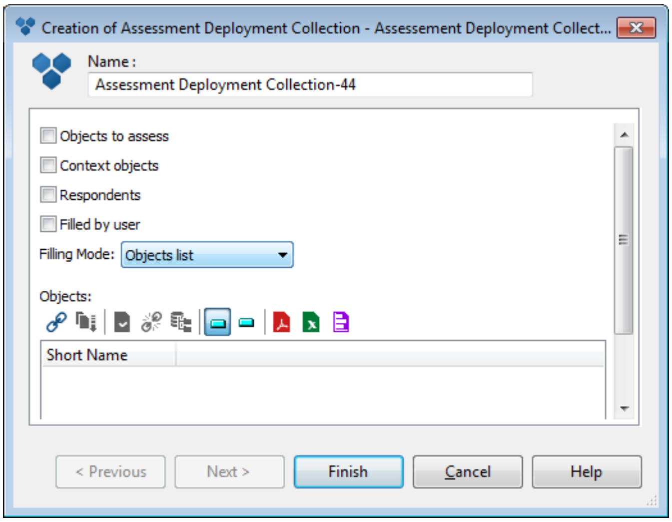
If a query or macro is called with specific parameters, the mode of obtaining these parameters should be defined in the assessment template properties.

Creating Assessment Deployment Collections

To create a new assessment deployment collection:

1. In the properties of an assessment template, select **Assessment Template Definition** > **Deployment Collection**.
2. In the tree presented, click **New**.

3. In the creation dialog box, specify the **Name** of the collection.



4. Select the check box corresponding to the type of information concerning the scope:
   - **Objects to Assess** to specify the object collection to be assessed
   - **Context Objects** to specify the object collection defining the assessment context

     ☛ *Definition of context objects is not mandatory.*
   - **Respondents** to specify the object collection identifying respondents.
5. Select the **Filling Mode** of the assessed objects list.

   ☛ *For more details, see "Defining Deployment Collection Filling Mode", page 59.*

   ☛ *If you want the deployment collection to be filled at session creation only, select the **Filled by User** check box.*
6. Click **Finish**.

   ☛ *The **Collection Effective Type** is used to refine session scope. Two values can be specified:*
   - *"Overload": the deployment template collection cancels and replaces the collection from the session deployment.*
   - *"Intersection": the intersection between the deployment template collection and the session is kept.*

Defining Deployment Collection Filling Mode

Filling mode enables indication of the way in which the list of objects connected to the deployment collection is filled. You can define your collection:

- implicitly (queries, macros)
- explicitly (object list)
- filled by user (specified by the user at session creation)

Proposed filling modes are as follows:

- By tree

  ☛ *This filling option is proposed if assessment scope definition mode is "By Tree". For more details, see "Defining Assessment Template Properties", page 53.*

- Object list
- Macro
- Macro with parameters
- Query

Filled by user

To fill the deployment collection on creation of the session only:

➧ Select the check box **Filled By User**.

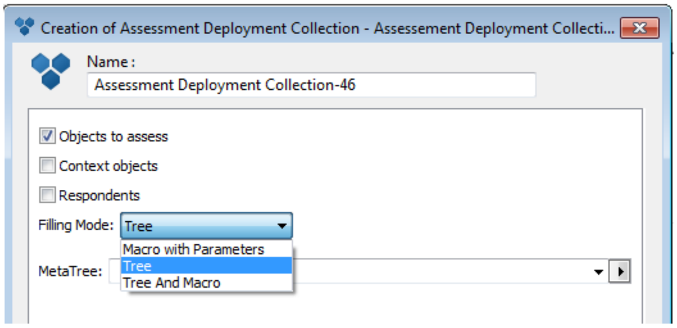
☛ *This filling mode is not available if the scope of your assessment is defined by a tree.*

Deployment by tree

Deployment collection objects are selected from a tree.

☛ *This deployment concerns only the object collection to be assessed. This option is proposed if assessment scope definition mode is "By Tree". For more details, see "Defining Assessment Template Properties", page 53.*

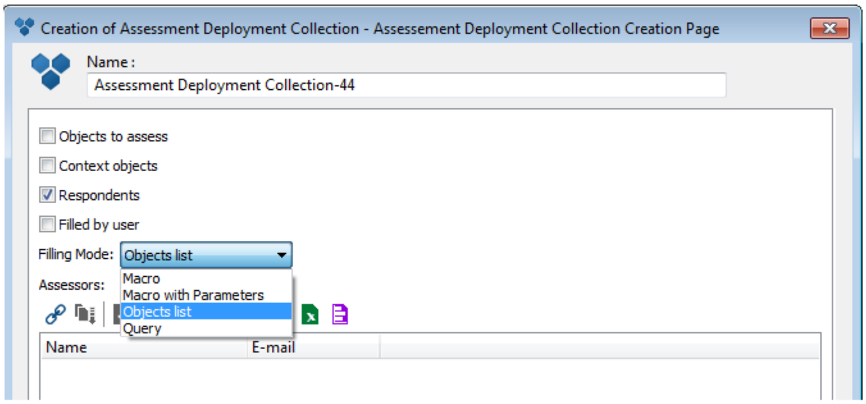
You must specify the **MetaTree** to be displayed to select collection objects.



Deployment by object list

You must specifically define deployment collection objects at creation of a session or campaign.

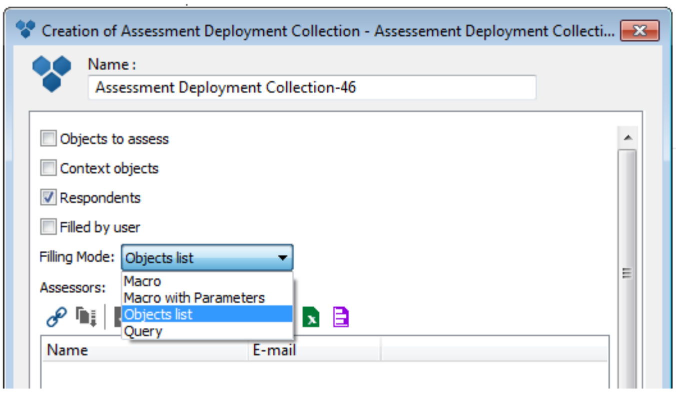
☛ *This deployment concerns only the collection of respondents.*



Deployment by macro

The object list is the result of execution of a macro.

☛ *This deployment concerns the collections of objects to be assessed and respondents.*



This macro should define a method called 'assessmentCollectionFill' and should have the following signature:

```
Sub assessmentCollectionFill(mgobjAssessmentCollection As
MegaObject,mgcolCollection As MegaCollection,)
End  Sub
```

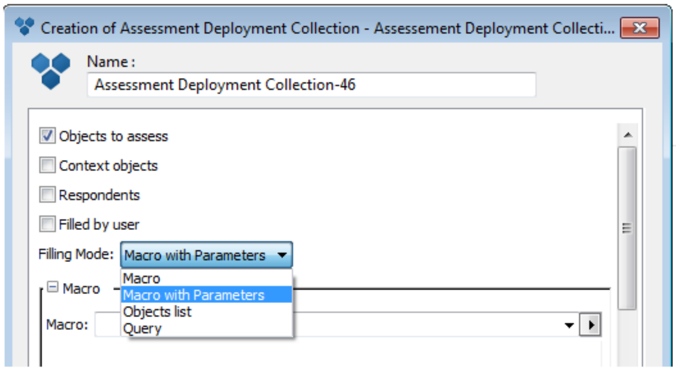
Arguments of the macro:

- mgobjAssessmentCollection: current collection
- mgcolCollection: the MegaCollection obtaining result of the collection

Deployment by macro with parameters

The object list is the result of execution of a macro with parameters.

☛ *This deployment concerns the collections of objects to be assessed and respondents.*



You must create an assessment deployment query to specify these parameters.

☛ *For more details, see* *"Defining Deployment Query Parameters", page 63**.*

Correspondence should be set between assessment deployment query parameters and parameters of **HOPEX** queries.

The macro should define a method called 'assessmentCollectionFill' and should have the following signature:

```
Sub assessmentCollectionFill(mgobjAssessmentCollection As
MegaObject,mgcolCollection As MegaCollection,strTreePath As
String,strParameters As String)

End  Sub
```

Deployment by query

The object list is the result of execution of a two types of query:

- **populating query**

  ☛ *If the **HOPEX** query includes parameters, you must create deployment query parameters and set their correspondence with **HOPEX** query parameters.*

  ☛ *For more details, see* *"Defining Deployment Query Parameters", page 63**.*

- **filtering query**

A filtering query enables reduction in the number of objects in a given collection by selecting certain criteria. It is based on ERQL queries. You can therefore choose to assess objects of a certain type in a session, and objects of a different type in another session.

To access population and filtering queries:

› In the deployment collection properties dialog box, select the **Advanced** tab.

Defining Deployment Query Parameters

You must specify deployment query parameters if the list of objects of the deployment collection is defined by a macro or query with parameters.

The deployment query parameter indicates to the **HOPEX** query how to find the value so that the HOPEX query can execute.

You must create a deployment query parameter for each of the HOPEX query parameters used.

If the HOPEX query contains several parameters, you must also set correspondence between the deployment query parameter and the HOPEX query parameter.

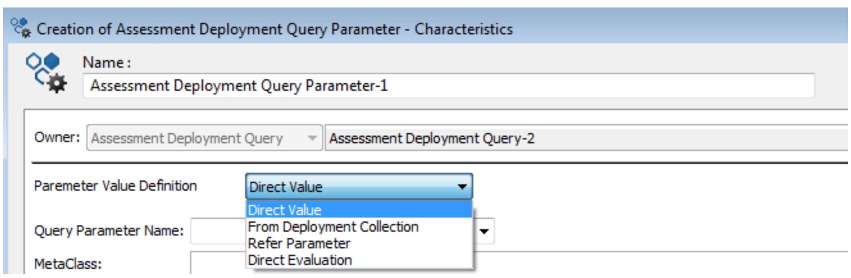
☛ *If the **HOPEX** query contains only a single parameter, it is not necessary to set correspondence. The first deployment query parameter found is taken into account.*

Creating a deployment query parameter

To create a query parameter associated with a deployment collection:

1. From the assessment template definition, open the properties of the deployment collection for which you want to create a parameter, and select the **Characteristics** tab.
2. In the **Query** field, create or connect a query.

   ☛ *To connect a query, you can for example use the command **List of available queries*** at the right of the field.
3. In the **Assessment Query Parameter** section, click the **Create** button.
4. In the **Parameter Value Definition Mode** field, select the mode of assigning one or several values to your parameter.
   - "Direct value", page 63.
   - "From deployment collection", page 64"
   - "Refer parameter", page 65"
   - "Direct assessment", page 65



5. Click **OK**.

Direct value

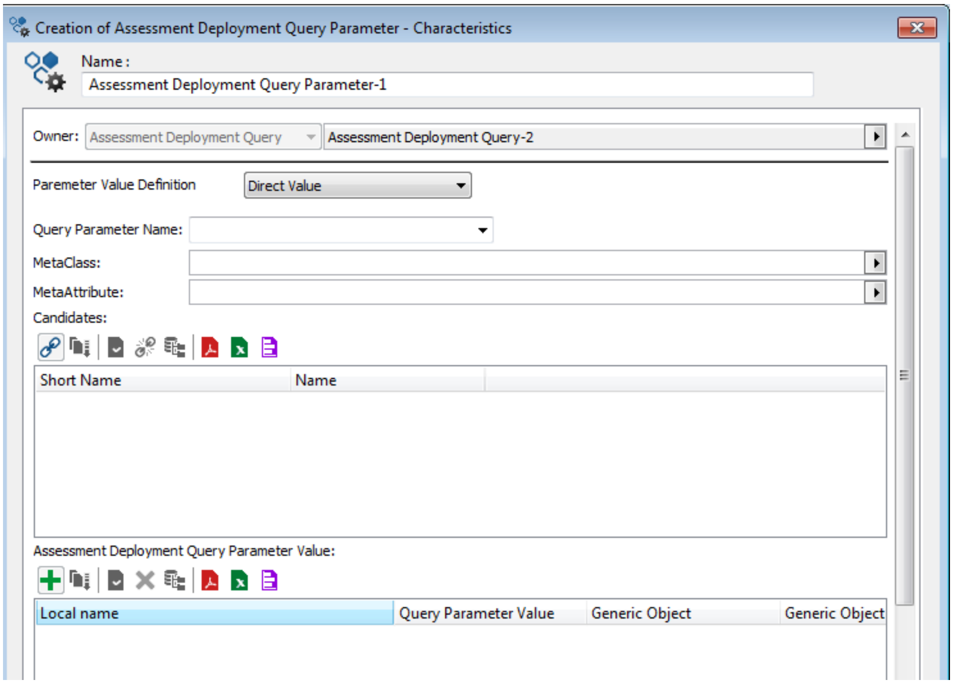
The parameter value is specified at creation of an assessment session.

In the deployment query parameter creation dialog box, you must define:

- the name of the desired parameter, for example "Org" in the **Deployment Query Parameter** field, or
- the **MetaClass** concerned.

> ☛ *If the query or the name of the query parameter is modified, correspondence between the deployment query parameter and the HOPEX query parameter is lost. Specification of the MetaClass is therefore recommended.*

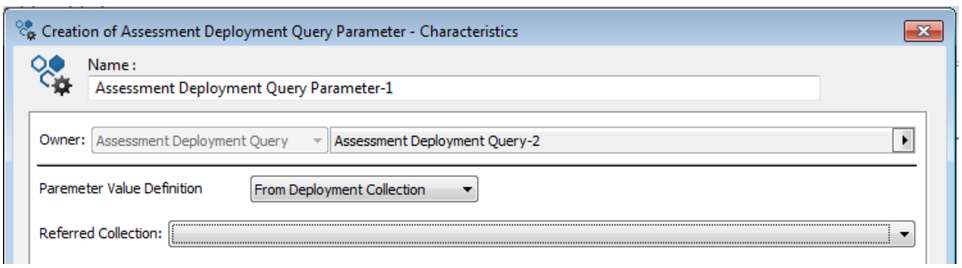
You can if required create a deployment query parameter value. For more details, see "Defining a parameter value", page 66.



From deployment collection

Parameter values are taken from a list of objects associated with a deployment collection.

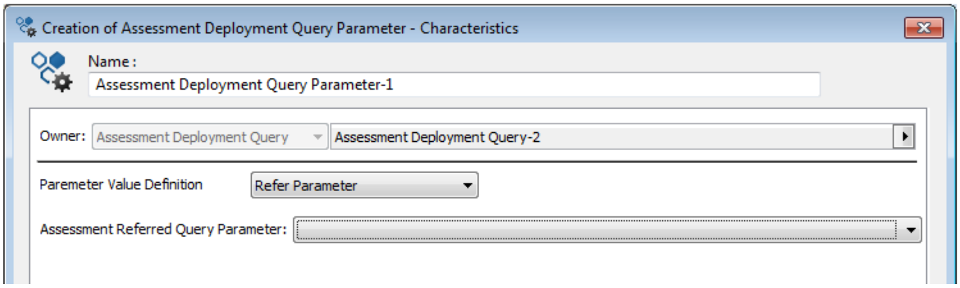
You must define the deployment collection in the **Referred Collection** field.



Refer parameter

The deployment query parameter references another parameter.

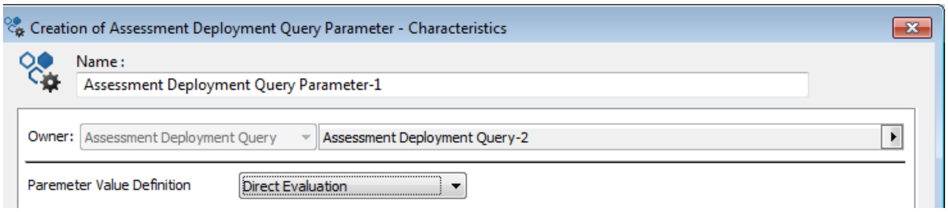
At execution, the parameter value is identical to that of the parameter defined in the **Assessment Referred Query Parameter** field.



Direct assessment

This value should be used in the context of direct assessment templates.

The deployment query parameter is not displayed.



Entering a deployment query parameter comment

To guide the user, you can display a comment in the assessment session creation dialog box.

To specify a comment:

1. In the deployment query parameter properties dialog box, select the **Texts** tab.
2. Enter a comment, for example "Select root entity from which you want to assess risks".

Managing parameter values

If you want to specify candidate objects at assessment template level, you must create a parameter value and specify if this value is:

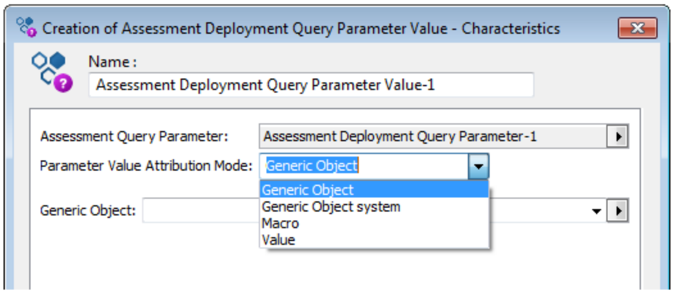
- defined by the user
- calculated by a macro

Defining a parameter value

When deployment query parameters have been defined, you can create candidate values for these parameters. These values are proposed by the assessment session creation wizard.

To define a parameter value associated with an assessment query parameter:

1. Open the properties of the assessment query parameter.
2. In the **Characteristics** tab, in the **Assessment Query Parameter Values** section, click **New**.



3. In the creation dialog box, specify the **Name** of the parameter value.
4. In the **Parameter Value Attribution Mode** field, select:
   - ***Generic Object*** if the value is a repository object.
     The **Generic Object** field allows you to specify a value that will be proposed to the user at creation of an assessment session.

     ☛ *Select **System Generic Object** if the value is a system repository object.*
   - ***Macro*** if the value is calculated by a macro.
     The **Implemented by Macro** field allows you to determine the macro that will be used.
   - ***Value***, to explicitly indicate a **Query Parameter Value**.
5. Click **OK**.
   The new parameter value appears in the list.

   ☛ *You can define several parameter values for the same Assessment Query Parameter.*

Accessing parameter values

To subsequently access the parameter values created:

- In the properties of an assessment template, select **Assessment Template Definition > Parameter Values**.

Assessment Scope Definition Example

We will as an example create a scope that relates to an assessment of risks connected to entities. Assessment will be made by each entity manager in the context of his/her entity.

Creating a new query with parameter

You must create a new query to obtain the list of risks connected to entities. You can name this query "Risks by Entity to be Assessed".

Code proposed for this query is as follows:

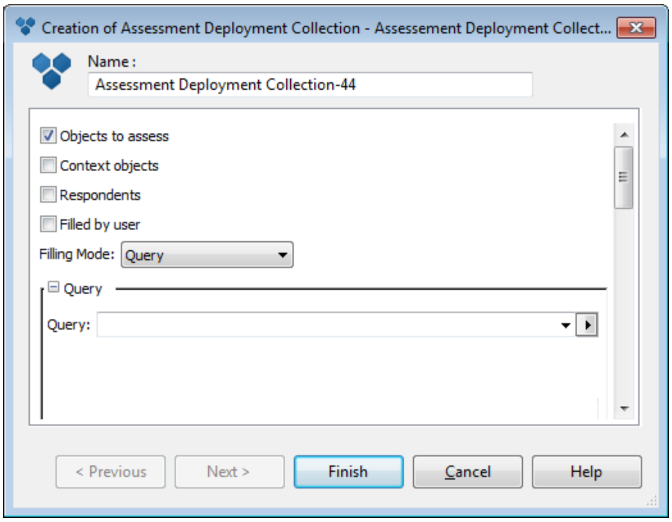
```
Select [Org-Unit] Into @org1 Where [Aggregation of] &"org"
Select [Org-Unit] Into @org2 Where [Aggregation of] Deeply in @org1
Select [Risk] Into @risk1 Where [Element at Risk]:[Org-Unit] &"org"
Select [Risk] Into @risk2 Where [Element at Risk]:[Org-Unit] in @org1
Select [Risk] Into @risk3 Where [Element at Risk]:[Org-Unit] in @org2
Select [Risk] From @risk1 Or @risk2 Or @risk3
```

In this example, the list of risks to be assessed is obtained from a query, parameter of which is the "org" root entity.

Creating the object collection to be assessed

To create the list of objects to be assessed:

1. Open the properties of the assessment template.
2. In the **Assessment Template Definition** tab, select the **Deployment Collection** subtab.
3. Right-click the **Deployment Template Collection** folder and select **New**.
   The **Assessment Deployment Collection** creation wizard opens.
4. Select the **Objects to Assess** check box.
5. Select the **Query** filling mode.
6. In the **Query** field, connect your query, for example "Risks by Entity to be Assessed".



7. Click **OK**.

☛ *Similarly create the collection for respondents, and for contexts if required.*

Creating an assessment query parameter

To define the value that will be assigned to the "Org" parameter of your "Risks by Entity to be Assessed" query, you must create an **Assessment Query Parameter**.

To create an assessment query parameter:

1. Open the properties dialog box of the **Assessment Deployment Collection**.
2. Select the **Characteristics** tab, and in the **Query**, section **Assessment Query Parameters,** click **New**.
3. In the **Query Parameter Name** field, select the "Org" parameter.
4. In the **Value Definition Mode** field, select "Direct Value" and click **OK**.
5. In the properties of the query parameter, select the **Text** tab and enter the following comment for this parameter: "Select the root entity from which all risks will be assessed".

   ☛ *This text is displayed by the assessment session creation wizard.*

6. Click **OK**.

Creating a deployment query parameter value

To define the value that will be assigned to the "Org" parameter of your "Risks by Entity to be Assessed" query, you must create a deployment query parameter value.

To create a deployment query parameter value:

1. Open the properties of the assessment query parameter.
2. In the **Assessment Deployment Query Parameter Value** section, click **New**.
   The parameter value creation dialog box opens.

   ☛ *For more details, see "Managing parameter values", page 65.*

3. In the **Parameter Value Attribution Mode** field, select "Generic Object".
4. In the **Generic Object** field, select a root entity of your repository.
5. Click **OK**.

QUESTIONNAIRE TEMPLATES

Assessments are carried out based on questionnaires sent to respondents. Each questionnaire is created based on a questionnaire template.

A questionnaire template represents definition of questionnaire content: question group, questions, unique or multiple answers and possible answers. It can be associated with a questionnaire presentation specifying display options. The questionnaire template is defined either at assessment template level or assessment session level.
Questionnaires sent to respondents are generated from the definition supplied in the questionnaire template.

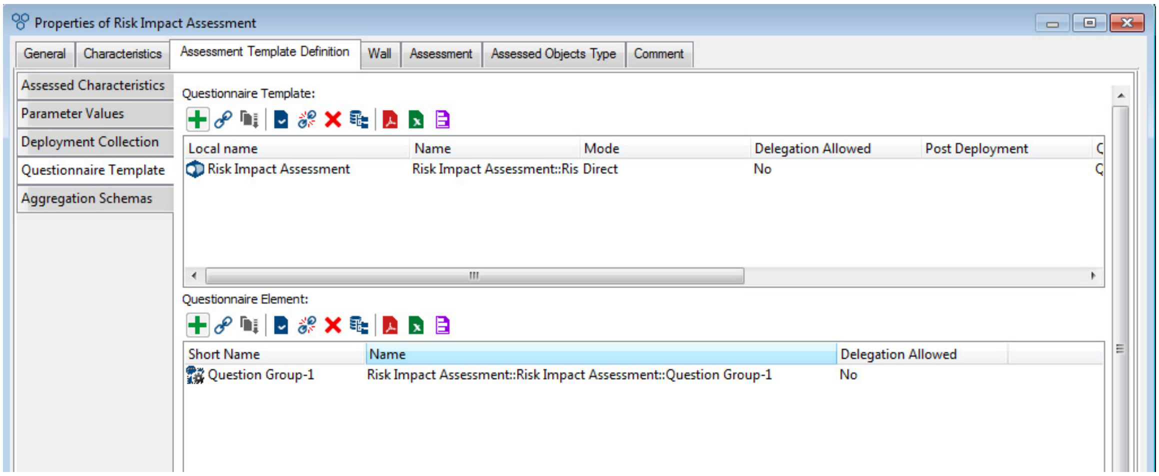
Each questionnaire template is specific to an assessment template.

An assessment template can however contain several questionnaire templates (for example, one for direct assessment, another for assessments via campaign).

Creating Questionnaire Templates

To create a questionnaire template associated with an assessment template:

1. In the properties of an assessment template that interests you, select **Assessment Template Definition > Questionnaire Template**.
2. Create a questionnaire template.



3. In the **Questionnaire Element** section, click **New**.
   A dialog box opens proposing creation of questions or question groups.

For more details, see:

- *"Questions and Answer Types", page 77.*
- *"Creating Question Groups", page 85.*

You must also initialize the questionnaire template to create questionnaire elements.

☛ *For more details, see "Initializing questionnaire templates", page 70.*

4. Click **Next**.
Questionnaire presentation parameters are displayed.
5. Define the parameters that interest you.

☛ *For more details, see "Defining a Presentation", page 71.*

6. Click **Finish**.

The new questionnaire template appears in the assessment template properties dialog box, **Assessment Template Definition** tab, **Questionnaire Template** subtab.

☛ *You can also access questionnaire templates of an assessment template by expanding the **Definition** folder of the assessment template, then the **Questionnaire Template** sub-folder.*

Initializing questionnaire templates

You can create your questionnaire template in two ways:

- by manual creation of questionnaire elements

☛ *For more details, see "Questionnaire Contents", page 76.*

- by automatic initialization

Initialization enables simple creation of questions from assessed characteristics. Initialization automatically creates:

- questionnaire elements
- answers
- possible answer values
- quotation rules connected to the appropriate macro.

☛ *For more details on these elements, see "Questionnaire Contents", page 76.*

To initialize a questionnaire template:

➧ Right-click the questionnaire template and select **Initialize Questionnaire Template**.
Initialization is started from assessed characteristics and allows viewing of objects created.

Managing questionnaire template languages

To allow the user to complete a questionnaire in his/her data language, it can be useful to update the "Neutral" language.

If the questionnaire has not been defined in the user language, the respondent cannot view the questions/answers in the questionnaire.

To allow the user to view the questionnaire in his/her data language:

➧ Right-click the questionnaire template concerned and select **Update Neutral Language**.

The effect of this command is to update questionnaire template element titles to "Neutral" language from the current language.

These titles are used by default in the case of absence of translation in a language when the respondent completes the questionnaire.

Defining a Presentation

You can configure the way in which questions are displayed to the respondent. It is what we call "Presentation" in the interface.

`Examples: Questions can appear in groups. You can allow the respondent to add explanatory documents to his/her questionnaire.`

Using presentations

You can:

- reuse presentations in questionnaire templates
- define assessment session scope

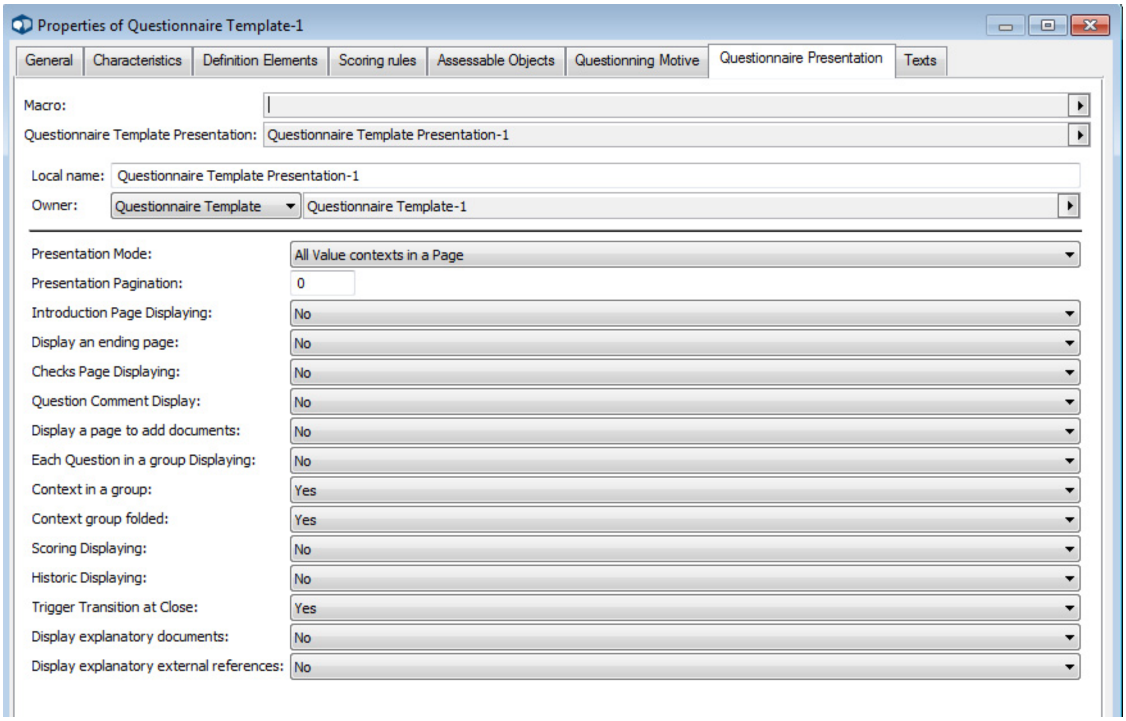
☛ *In this case, the assessment session presentation overloads that defined for the questionnaire template.*

Defining a Presentation

To define a questionnaire template presentation:

1. Open the properties of the questionnaire template.
2. Select the **Questionnaire Presentation** tab.
3. Create or connect a **Questionnaire Template Presentation**.

4. Specify:
   - **Presentation Mode**: see "Presentation mode", page 72
   - Other presentation options: see "Presentation possibilities", page 73



Presentation mode

Presentation mode optimizes questionnaire display and simplifies data entry. Several presentation modes are available:

All objects to be assessed and contexts in a single page

All questions are presented in a single page.

☛ *This type is recommended if the volume of data handled is limited.*

Choice of the object to be assessed and its contexts in a list

Objects to be assessed are presented in a list. The questionnaire associated with the selected object is displayed below this list.

Each object to be assessed and its contexts in its own page

A specific page for each object to be assessed is presented.

Group by object to be assessed/by assessment context

A matrix offers a compact presentation and simplifies entry of answers when there are many questions.

The matrix enables grouping of questions by context object or by assessed object, with:

- in columns: questions
- in rows:
  - contexts for an object to be assessed, or
  - objects to be assessed for a context

☛ *Several question lists can be proposed. In this case, you can specify the number of objects to be assessed per page in the **Pagination Presentation** field.*

Presentation possibilities

Pagination presentation

Enables specification of the number of objects to be assessed per page in the case of a matrix presentation. See "Group by object to be assessed/by assessment context", page 72.

Display introduction page

Enables display of a page at the beginning of the questionnaire.

Display end page

Enables display of a page at the end of the questionnaire.

Display verification page

Enables display of mandatory questions for which the respondent has not provided an answer.

Display question comment

Enables display of comments concerning each question.

Display document attachment page

Enables display of a page so that the respondent can add documents or evidence.

☛ *This page appears at the end of the wizard enabling completion of the questionnaire.*

Display each question in a group

Enables display of a question in a group (also called "section" in HOPEX solutions guides) in page of a questionnaire.

☛ *Display of the name of a group is made via an intermediate code template.*

Collapsed context group

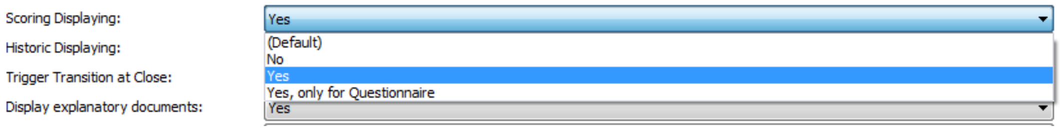
Enables display of assessment contexts in a group (also called "section").

Display scoring

Displays a button in the questionnaire enabling enabling display of the score obtained.

The score can be displayed:

- for each assessed object
- globally at questionnaire level (the button is located at the top of the questionnaire)

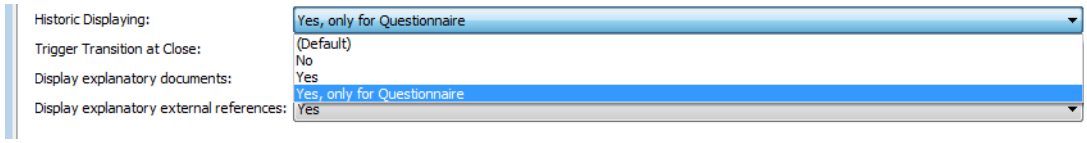


Display history

Displays a button enabling history access.

The history can be displayed:

- for each assessed object
- globally at questionnaire level (the button is located at the top of the questionnaire)



Trigger transition at closing

Enables triggering of a workflow transition when the respondent clicks the "Close" button in his/her questionnaire.

☛ *For more details, see* *"Triggering a Transition at Questionnaire Closing", page 104.*

Displaying explanatory documents/external references

Enables display of documents/external references associated with a question.

☛ *These documents provide explanations concerning questions and answers.*

Creating a questionnaire per assessment node

By default, a questionnaire comprises all the assessment nodes, that is, all the objects to be assessed in their context assigned to a single person. Only one questionnaire is sent to the respondent per session.

To generate a questionnaire per assessment node:

- In the **Questionnaire Presentation** tab of the properties page of the questionnaire template, select the **Create Questionnaire per Assessment Node** check box.

  ☛ *You can perform this configuration at the questionnaire template level or the session level.*

In this case, the questionnaire generated is given a name as follows:

Condition	Questionnaire name
No context objects are used	Respondent name - Assessed object name
A context object is used + the assessed object is the same for each context object	Respondent name - Assessed object name - Context object names

Previewing questionnaires

To preview a questionnaire, the respondent must connect to the **HOPEX Web Front-End** application with the role "Assessment Designer".

For a preview of the questionnaire:

1. In the **Assessment Definition** navigation tree, expand the **Assessment Template** folder.
2. Expand the folder of the assessment template associated with the questionnaire template that interests you.
3. Expand the folders **Definition > Questionnaire Template**.
   The list of questionnaire templates attached to the deployment template appears.
4. Right-click the questionnaire template that interests you and select **Preview Questionnaire**.
   Preview of questionnaires allows you to view their rendering according to the selected presentation options, and this before starting the assessment session.

   ☛ *You can modify presentation of your questionnaire if you find it unsatisfactory.*

   For more details, see *"Defining a Presentation", page 71**.*

Completing the presentation

The presentation can be completed by a macro. The aim of this macro is to complete questionnaire answer wizard processing by means of specific checks.

```
Example of possible processing: at initialization of the
questionnaire, a pre-completed questionnaire could be
proposed to the respondent.
```

Questionnaire Contents

See "How to Create the Questions of a Questionnaire?", page 2.

Presentation of Questionnaire Elements

Questionnaire elements constitute the basic blocks of a questionnaire. They are of three types:

- questions: "Questions and Answer Types", page 77
- question groups: "Question Groups", page 85
- presentation tools "Presentation Tools", page 93

They enable to define:

- Questions
  see "Questions and Answer Types", page 77.

  ☛ *Questions can be automatically generated. For more details, see "Initializing questionnaire templates", page 70.*
- Presentation of questions or question groups in the questionnaire
  see "Presentation Tools", page 93.
- Question display conditions
  see "Conditions on question display", page 97.

Accessing Questionnaire Elements

To access the questions of a questionnaire:

1. In the desktop dedicated to assessment, click **Assessments Definition > Assessment Template**
2. Select the assessment template of interest to you.
3. In the page **Assessment Template Definition** select **Questionnaire Template**.
4. Click the questionnaire template that interests you.
   The list of questionnaire elements already created appears in the **Questionnaire Element** section.

See also "Presentation of Questionnaire Elements", page 76.

QUESTIONS AND ANSWER TYPES

The questions you want to include in the questionnaire display two main information:

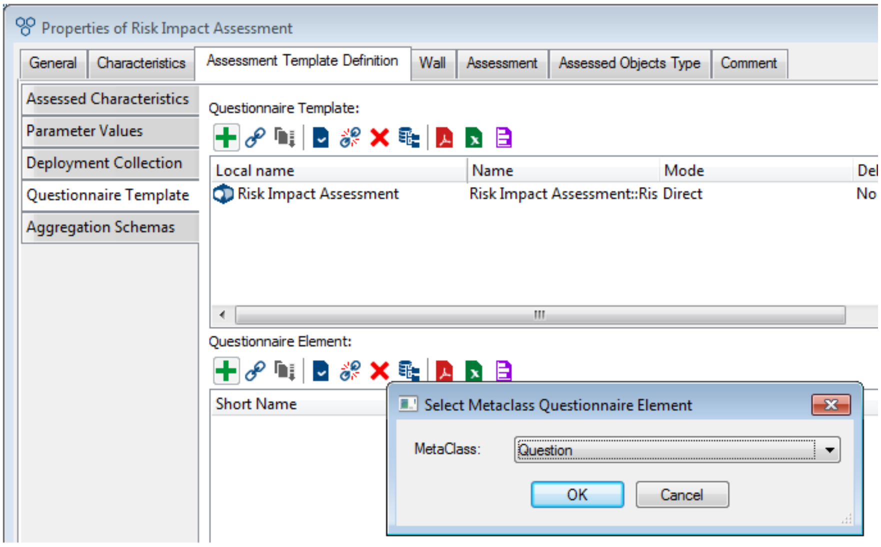
- the Title (which represents the question as it appears in the questionnaire).
- The Answer type: see "Answer types", page 78.

Creating Questions

A question can be associated with a test conditioning its display or its mandatory aspect. It can use a document or an external reference to provide more detailed information.

To create a question:

1. See "Accessing Questionnaire Elements", page 76.
2. Click **New**.
3. In the dialog box that appears, select **Question** and click **OK**.



For more details on other questionnaire elements proposed, see:

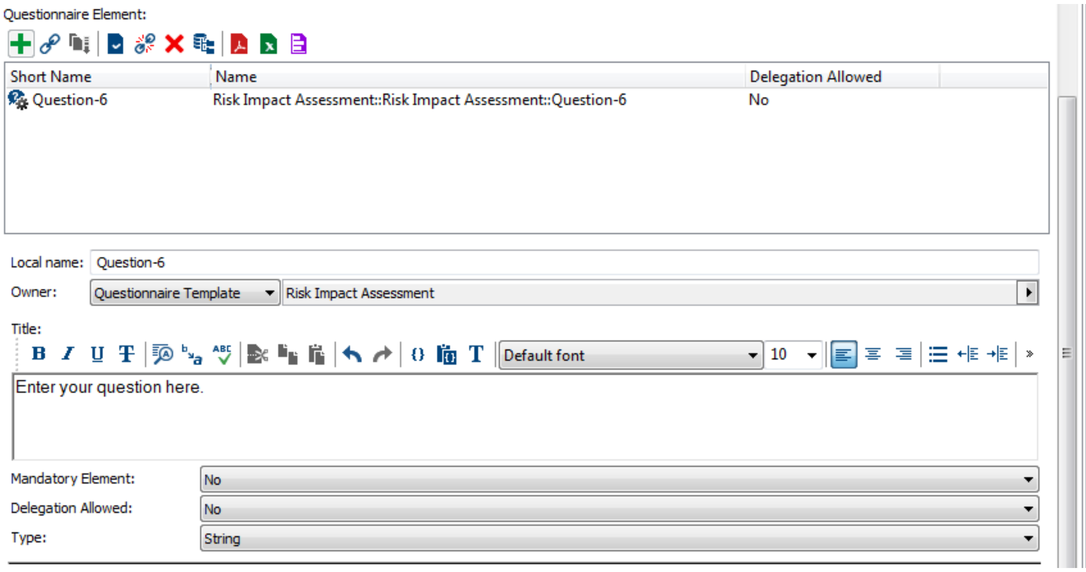
- *"Creating Question Groups", page 85*
- *"Presentation Tools", page 93*

Characteristics of the question appear in the questionnaire element properties

4. Specify the **Title**, which represents the question as it appears in the questionnaire.

The local name of the question is not visible to the questionnaire respondent.

5. Select the answer **Type** enabling specification of the answer format.



☛ *Depending on the **Type**, an **Answer** section appears. Answers of "Multiple answers" type require require manual creation of answers. For more details, see "Types of Questions to Specify Manually", page 88.*

6. Specify if required:
   - The **Mandatory Element** field (indicates the mandatory or optional nature of the answer to this question).
   - The **Delegation Allowed** field (specifies if the answer to this question can be assigned to another person by delegation).

Answer types

About answer types

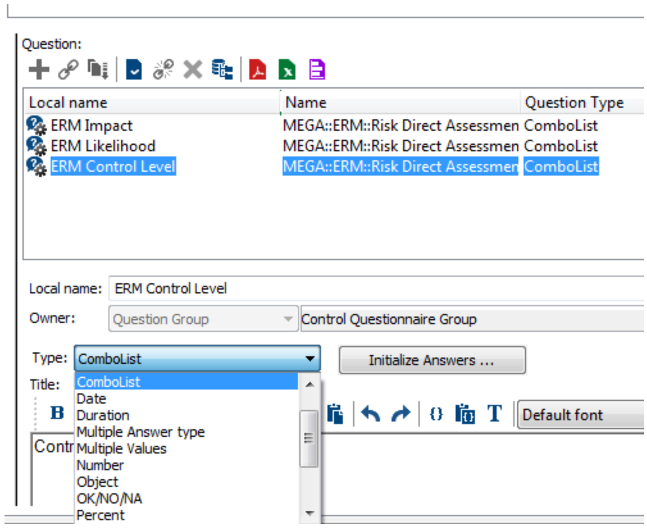
See "Questions and Answer Types", page 77.

Answer to a question is automatically created except for certain question types that require manual creation of answers. For more details, see "Types of Questions to Specify Manually", page 88.

Selecting the answer type

In the properties of a question, you can choose the **Type** of answer that you want to provide in your questionnaire.

☛ *To access questions, see "Accessing Questionnaire Elements", page 76.*



In this way, respondents can:

- "Entering your own answer", page 80, in the form of:
  - text
  - string
  - multiple answer type
  - signed number
  - duration
  - floating
  - percent
- "select a value", page 81, in the form of:
  - combolist
  - short
  - date
  - OK/NO
  - vertical radio
- "Connecting HOPEX objects", page 82
  - object
  - several objects

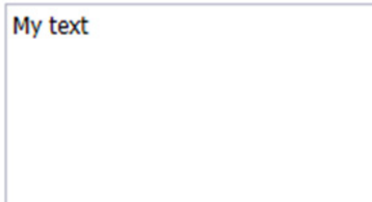
  ☛ *You may also need to attach objects to your answer, for example, issues or action plans.*
- "Selecting a check box", page 84

Entering your own answer

The types of questions available that can be used to directly enter an answer are listed below.

Text

used to enter text.



String

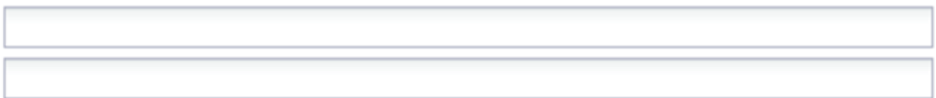
used to enter a string of characters in a field.

☛ *If you must display your answer in more than one field/row, select the "Multiple answer type" value.*

Multiple answer type

Used to display more than one answer fields for the same question.

```
Example of use: to enter an address you may need several
fields.
```



☛ *This type of answer requires creation of answer values. For more details, see "Multiple answer", page 89.*

Signed number

Enables entry of a negative or positive number.

duration

Used to enter a duration

Number

Enables entry of a number.

Percent

Used to enter a percentage.

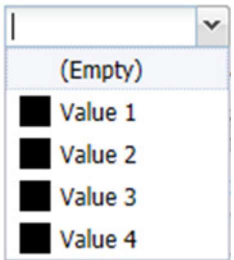
select a value

The types of questions available that can be used to select a value using predefined suggestions are listed below.

☛ *ComboLists and radio buttons are answers of Enumeration type.*

ComboList

Used to select a value from a drop-down list.



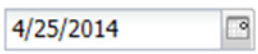
☛ *This type of answer requires creation of answer values. For more details, see "Answer of Enumeration type (drop-down lists and radio buttons)", page 88.*

Short

Enable entry of a short integer.

Date

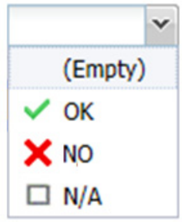
Used to enter a date using a calendar



OK/NO/NA

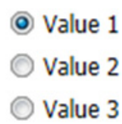
Provides a drop-down list containing three values:

- OK
- NO
- N/A (Not Applicable)



Radio button (vertical)

Used to display vertical radio buttons in the answer.



☛ *This type of answer requires creation of answer values. For more details, see* *"Answer of Enumeration type (drop-down lists and radio buttons)", page 88**.*

Connecting HOPEX objects

Respondents can answer a question by referring to **HOPEX** objects. You can configure your question so as to connect these objects. For this, you must choose one of the following question types:

- "Object": to connect an object
- Multiple values: enables the respondent to connect several HOPEX objects in the answer.

☛ *You can specify the minimum and maximum number of objects to be connected.*

Here the object is stored as an answer.

Object

Displays a menu to connect a single occurrence.

Multiple values

Used to display occurrences of the same object type in a list.

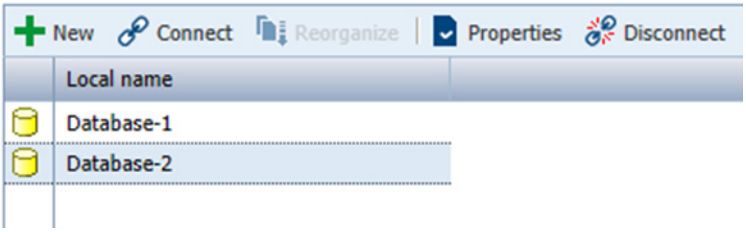
☛ *This should not be confused with the multiple answer type.*

To specify object type of occurrences:

- In the question creation dialog bow, specify the **Collection Type** field.

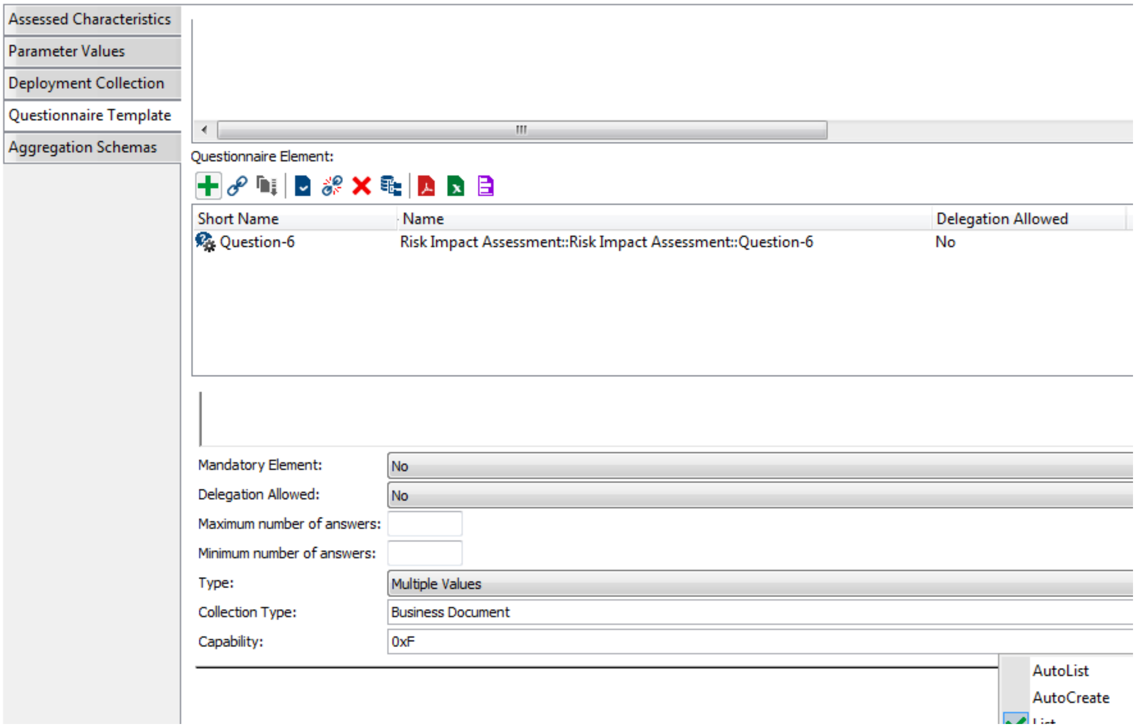
  `Example: If you want the respondent to be able to add attachments when completing the questionnaire, select for example the "Business Document" MetaClass.`

The result appears as follows:



To specify the menu proposed to the user in the questionnaire:

- Specify the **Capability** field.



Selecting a check box

The ***Boolean*** type is used to display a check box in the questionnaire.

QUESTION GROUPS

A question group enables assembly of a consistent set of questions (for example relating to the same theme).

You can specify:

- A title (title of the group of questions)
- A list of questions
- A display condition: see "Conditions on question display", page 97.
- A presentation tool: see "Presentation Tools", page 93.

Creating Question Groups

A question group defines a set of questions presented in groups. Questions are created and ordered in the question group.

To create a person group:

1. See "Accessing Questionnaire Elements", page 76.
2. Click **New**.
3. In the dialog box that appears, select **Question Group** and click **OK**.
4. Specify the **Question Group Title**, that is, the character string displayed in the question group header.
5. Specify the following fields as required:
   - **Display Condition** enables definition, by MetaTest, of the question edit condition.

     ```
     For example, the question group is only displayed if the
     user has answered "OK" to another question of the
     questionnaire element.
     ```

     ☛ *For more details, see "Conditions on question display", page 97.*
   - **Mandatory Condition** enables definition, by MetaTest, of the mandatory or optional nature of answering group questions.

     ☛ *For more details, see "Conditions on question display", page 97.*
   - **Delegation Allowed** specifies if the answer to group questions can be assigned to another person by delegation.
6. In the **Questions** section, create as many questions your group should contain.

   ☛ *For more details on question creation, see "Questions and Answer Types", page 77.*

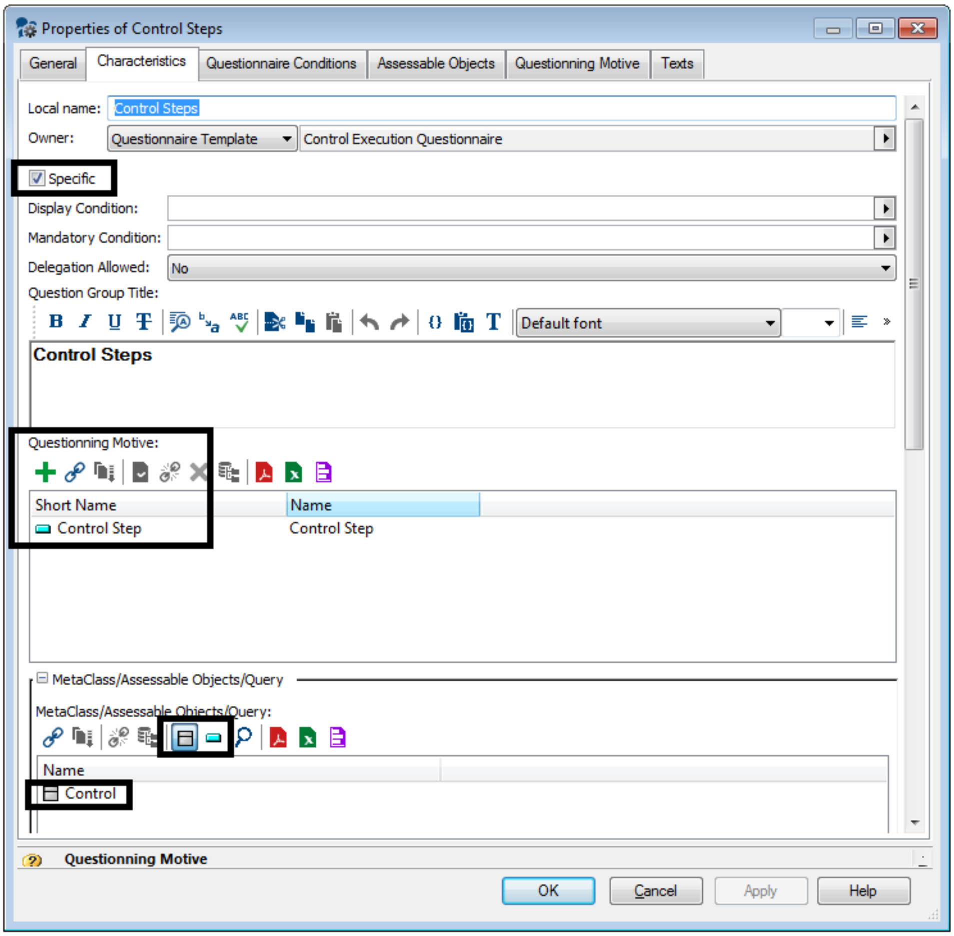
The **Specific** check box enables supply of the group explicitly by dynamically searching for specific questions declared on assessable objects or MetaClasses.

In this case you must specify:

- the **Questionnaire Objective**.

  ☛ *For more details, see "Creating a Specific Question Group on a MetaClass", page 86.*

- the MetaClass concerned or the list of assessable objects, depending on the button selected.



"Control Steps" question group properties dialog box

Creating a Specific Question Group on a MetaClass

If you want to create questions common to objects of the same type and use these in different questionnaire templates, you can define questions applying to certain objects/MetaClasses.

☛ *This mechanism of generic questions can be used on all MetaClasses that can be assessed. So that a MetaClass can be assessed, it must inherit the "Assessable Object" abstract MetaClass.*

To create specific questions:

1. In the properties of a MetaClass, select the **Assessment Instrument** tab.
2. Create a specific question group.

   ☛ *You can also connect an existing question group.*

3. Click the group created to display its properties.
4. Enter the **Question Group Title**.
5. In the **Questionning Motive** frame, click the **Create** or **Connect** button of **Assessment Motivation** type.

Assessment motivation enables to characterize question use context (for example, control or test step) and to reuse questions between questionnaire templates. It enables creation of a link between the questionnaire template and the specific questions group.

☛ *You must remember to specify the question group at the quotation rule level. For more details, see* *"Quotation Rules", page 98.*

TYPES OF QUESTIONS TO SPECIFY MANUALLY

Answer to a question is automatically created except for certain question types that require manual creation of answers.

For questions of type:

- **Enumeration: Drop-Down List** and **Radio Button (Vertical)**, you must define possible answer values.

  ☛ *For more details, see "Answer of Enumeration type (drop-down lists and radio buttons)", page 88.*

- **Multiple Answer Type**, you must create the different answer proposals. The respondent can be limited to a single answer or invited to select several.

  ☛ *For more details, see "Multiple answer", page 89.*

Depending on the selected question type, you may have to provide additional information. For example, for questions of "Object" type, you must specify the MetaClass of the object proposed as the answer.

The answers created can be of different types (object, value, document, etc.)

Answer of Enumeration type (drop-down lists and radio buttons)

You must specify possible answers for each answer of Enumeration type, that is:

- combolists
- radio buttons (vertical)

  ☛ *For more details on answer creation, see "Types of Questions to Specify Manually", page 88.*

Creating Possible Answer Values

To create a possible answer value for drop-down lists or radio buttons:

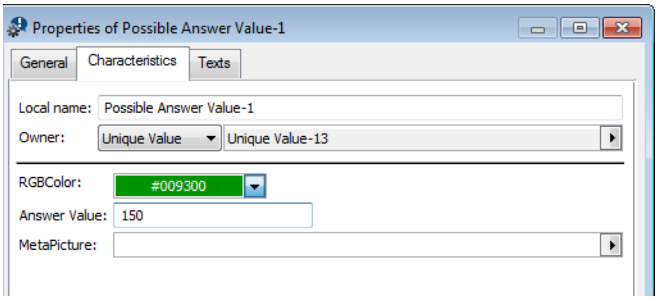
1. Open the answer properties.
2. In the **Possible Answer Value** section, click **New**.
   The new answer value appears in the list.
3. Open the possible answer properties.
4. In the **Answer Value** field, specify a value.

   ☛ *This value can be used by quotation rules.*

5. Indicate the color associated with the answer value.
   You have two possibilities:
   - Specify a **MetaPicture** if you have one.

     ☛ *The MetaPicture enables association of an image with an answer value.*

   - Specify the **RGBColor**.



6. Click **OK**.

☛ *You must create at least two possible answer values.*

Defining an answer value by default in the event of a non-answer

You can allocate an internal default value for drop-down list and radio button type questions.

The internal value is returned as a default answer if the respondent omits to answer a question.

To specify an internal value by default:

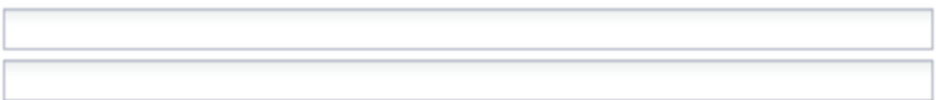
› In the properties page for the question, specify the **Internal Default Value** field.

☛ *The internal default values are available only in drop-down lists and radio buttons.*

Multiple answer

The multiple answer type is used to display several answer fields for the same question.

```
Example of use: to enter an address you may need several
fields.
```



You can choose between different types of answer:

- "Unique value"
- "Multiple value"

Value types

Unique value

You must specify the **Datatype Value** (for example: character string, text, object, etc.)

> ☛ *For more details on datatype values, see* *"Answer of Enumeration type (drop-down lists and radio buttons)", page 88.*

Multiple value (multiple objects)

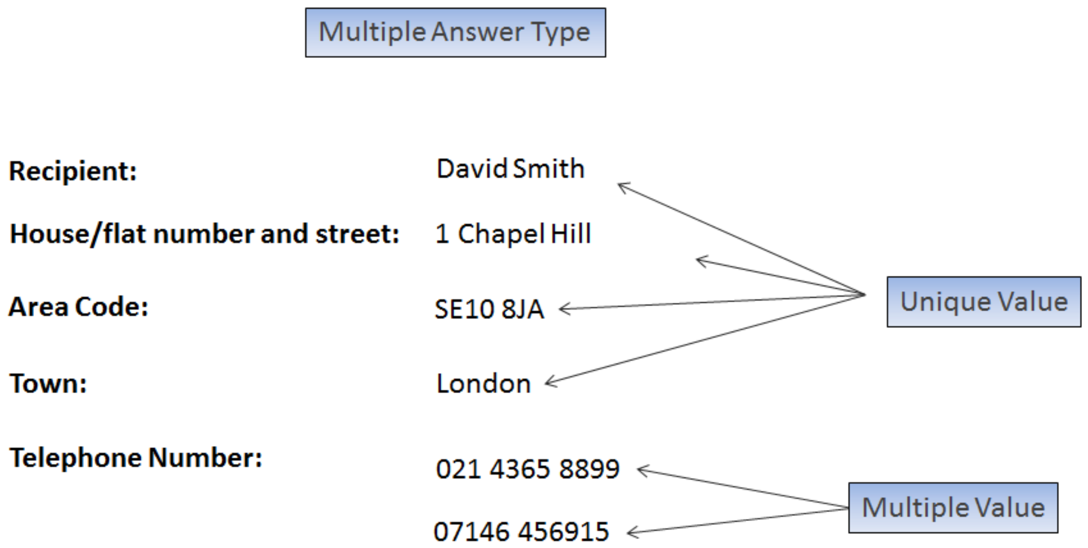
The "Multiple value" answer is used by the respondent to indicate several answer values. These should be HOPEX objects.

You can specify the minimum and maximum number of objects to be connected.

For more details, see "Connecting HOPEX objects", page 82.

Example of "multiple answer type" question with unique value

An address comprises several answer elements, each of which has a unique value (the postal code is necessarily unique).



All Answer Types

Initializing an answer value

Value initialization is a mechanism used to display an answer value at the question level when the respondent opens the questionnaire. This mechanism is valid for all answer types.

☛ *This mechanism must not be confused with that of the internal default value. For more details, see* *"Defining an answer value by default in the event of a non-answer", page 89**.*

When answering the questionnaire, the respondent can keep the initialized value. If the respondent modifies this value, the respondent can return to the initial value.

To define the initial value:

1. To the right of the field specifying the answer type, click **Initialize Answers**.
   A wizard prompts you to select the value to appear when the user opens the questionnaire.

   ☛ *The values provided correspond to the possible answer values that were previously defined.*
2. Select the value in question and click **OK**.

Answer display conditions

The number of characters in the question title impacts the answer display.

Number of characters in the answer title	Answer display
less than 180	The answer appears on the same row
greater than 180	The answer appears on the next row.

Answers calculated according to answers to other questions

An answer can depend on the answer given to another question.

To calculate an answer according to the value of another answer:

1. In the properties page for the answer that you want to calculate, create an **Implementation** macro.
   The system recognizes that this is a calculated answer.
2. In the macro, specify the code in the "GetAttributeValue" function that reproduces the value according to another value.

Implementation example

In the example below, if the answer value for Impact <ERM> = 4, then the answer value that you are specifying = 1. This answer cannot be modified by the respondent: it is calculated by the macro.

```
Sub GetAttributeValue(Object as MegaObject,AttributeID as
Variant,Value as String)

  Value ="2"

  if Object.GetProp("~Lqkwq3VdIXq8[Impact <ERM>]") = "4"
then

    Value ="1"

  else

    Value ="3"

  end if

End  Sub
```

PRESENTATION TOOLS

To enrich the presentation of your questionnaires, **HOPEX** enables you to use presentation tools. They enable enhancement of questionnaire content and presentation, for example to include images, diagrams or text.

The objective is to customize a questionnaire.

The presentation tool can be associated with the following object types:

- questionnaire template
- question

  ☛ *For more details, see "Questions and Answer Types", page 77.*

- question group

  ☛ *For more details, see "Creating Question Groups", page 85.*

- presentation tool

  ☛ *You can nest presentation tools.*

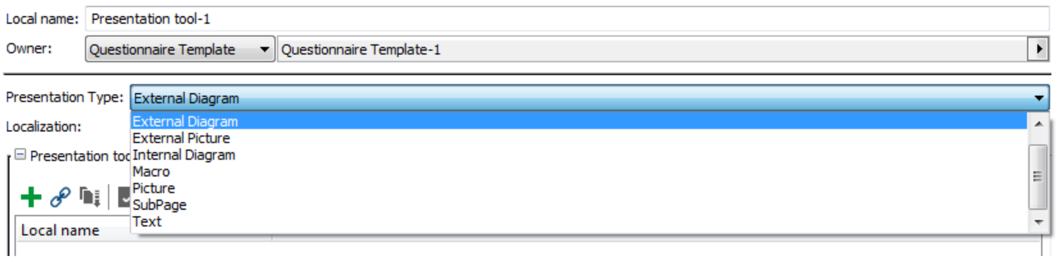
Positioning the presentation tool

To specify the position of the presentation tool with respect to its associated object (for example, question or group of questions):

1. In the question properties page, expand the **Presentation Tool** section and click **New**.
2. In the **Location** field, specify the value in question:
   - "Top": to display the presentation tool ***before the title***
   - "Bottom": to display the presentation tool ***after the answer***
   - "Middle": to display the presentation tool ***between the title and answer***

Presentation Type

Presentation tools can be of different types.



External diagram

Enables display of one or several diagrams in a tab outside the questionnaire itself.

To recover the list of diagrams:

1. In the properties of the presentation tool, select the **Texts** tab, then _Parameterization in the drop-down list.
2. Specify the macro "Assess Object Diagram Implementation".
   The following is an example enabling listing of diagrams for objects of "Process" type.

```
[AssessmentQuestionnaire]

Query1=~Dpxvsf(pIHMH[Presentation Tool - Diagram for
Process],~w)UB063C99h0[BPMN Process]
```

Internal diagram

Enables display of one or several diagrams within the questionnaire.

☛ *For more details on this configuration, see "External diagram", page 94.*

Image

Enables insertion of the image specified in the **MetaPicture** field.

External image

Inserts a button in the questionnaire enabling display of the image in a specific window.

Macro

Enables specification of a presentation tool from the VBScript macro specified in the **Macro** field.

The macro should implement the GetTemplate() function, which returns a properties page template. The root object of this template is an assessment node. The function includes three parameters:

- the presentation element
- the parent object of this presentation element
- a context.

A script is generated at initialization of the macro.

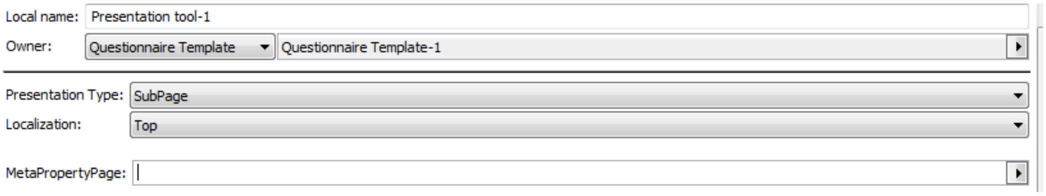
```
Example:
Function GetTemplate(mgobjPresentationTool,
mgobjPresentationToolParent, oPresentationToolContext)
   Dim sTemplate
   sTemplate = ""
   ' ----
   Dim sFrom, sGroup, sCondtion
   sFrom =
oPresentationToolContext.getProp("~hIRFg9qfIjl6[Presentatio
n Tool From]")
   sFrom = "DatabaseMap"
   sGroup =
oPresentationToolContext.getProp("~gJRF1AqfI9o6[Presentatio
n Tool Group]")
   sTemplate = "DatabaseMap=Map(~qLTKQPbNJXOP[Database from
node])" & VbCrLf
   sTemplate = sTemplate &
"MyItem_1=Item(~Yt9ZXpesiO40[Sgbd-Cible]),From(" & sFrom &
"),In(" & sGroup & ")"
   GetTemplate = sTemplate
End Function
```

Sub-Page

Enables display of the properties page of a questionnaire object. In the questionnaire, when you click an assessment node, the properties of the object object concerned are displayed.

Enables display of the properties page of an object:

- Specify the **MetaPropertyPage** field.

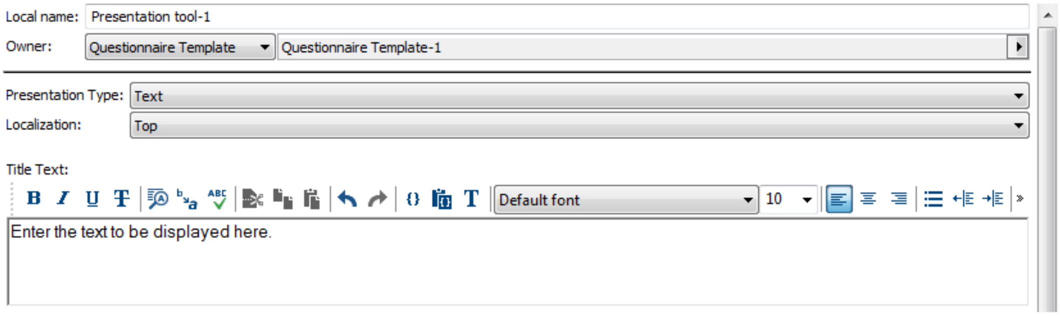


Text

Enables insertion of text in the questionnaire.

To enter text displayed in the questionnaire:

› Specify the **Title Text** field.



CONDITIONS ON QUESTION DISPLAY

If question display depends on the answer given to another question, you can use MetaTests to condition display of a question and its answers.

☛ *For more details on metatests, see* *"Defining an Implementation Test", page 198.*

To condition question display:

1. See "Accessing Questionnaire Elements", page 76.
2. Open the properties of the question.
3. Select the **Questionnaire Conditions** tab and the **Display Conditions** subtab.
4. In the **Display Conditions** field, create a MetaTest.

   ☛ *The MetaTest relates to assessment nodes.*

   The question properties page is modified, and all assessment node links to which the condition relates are displayed.
5. In the upper part of the window, select the question of interest to you.
6. Select the assessment node link of interest to you and drag it into the **Test Expression** section.
7. Describe the expression of the test.
8. Click **OK**.

   ☛ *The **Mandatory Condition** tab is used when test execution is mandatory (that is, the user cannot continue the questionnaire until he/she has answered the question).*

QUOTATION RULES

A quotation rule defines the list of answers used to calculate the value of an assessment characteristic. It also provides the plugIn handling the calculation.

Each assessed characteristic can be connected to several quotation rules.

A quotation can be connected to a macro enabling calculation of values of assessed characteristics. In this case, the definition of a quotation rule is in two steps:

- "Creating Quotation Rules", page 98
- "Creating Plugins", page 99

A generic macro can also be used in simple cases ("answer value" quotation rule type). For more details, see "Creating Quotation Rules", page 98.

Creating Quotation Rules

To create a creation rile:

1. Open the properties of the questionnaire template concerned.
2. In the **Quotation Rules** section, click **New**.
   The **Quotation Rule** creation wizard opens.
3. Specify the **Name** of your new quotation rule.
4. Specify the **Quotation Rule Type**:
   - **Macro**
     In the **Calculation Macro** field, connect the macro defining the value calculation code of the assessed characteristic.

     ☛ *This field appears only if you selected "Macro" quotation rule type.*

     ```
     Select, for example, the "Assessment Quotation Rule-
     1.Computing Macro" macro.
     ```

     ☛ *For more details on creation of macros defining quotation rules, see "Creating Plugins", page 99.*
   - **Answer value**
     This quotation rule type avoids having to use a specific macro. In this case, the mechanism will search for answer values on possible answers.

     ☛ *For more details on possible answers, see "Answer of Enumeration type (drop-down lists and radio buttons)", page 88.*
5. Connect the **Assessed Characteristic** to which the quotation relates.
6. Connect the **Answers** that interest you, or the **question group**.
7. Click **Next**.
8. Connect a **MetaTest** to define any calculation conditions.

   ☛ *When calculating an assessed characteristic value, if no MetaTest has been defined, the first quotation rule found is used.*
9. Click **Finish**.

Creating Plugins

Calculation of an assessed characteristic value can be by means of a macro.

☛ *For more details on the use of **HOPEX** macros, see technical article **All about starting with APIs**.*

Creating a macro

To create a macro:

1. Open the **Quotation Rules** window that interests you.
2. Click the arrow at the right of the **Macro** box and select **Create**.
   The macro creation wizard opens.
3. Enter the **Name** of the macro.
4. Select the check box corresponding to the type of macro you want to use:
   - "macro (VB) Script": to create a macro implemented by VB Script code
   - "macro based on component"
   - "macro Java": to create a macro implemented by Java code
   - "existing macro": to use an existing macro, of which field **Reusable** is selected.
5. Click **Next**.
6. If the macro you have created can be reused for another quotation rule, select the **Reusable** box.
7. Click **Finish**.

Implementing the macro

The macro should have a method called 'compute' with this signature:

```
Sub compute(mgobjScoringRule As MegaObject,
mgobjValueContext As MegaObject, mgcolAnswers As
MegaCollection , mgobjAssessedValue As MegaObject)

End  Sub
```

List of arguments:

- mgobjScoringRule: current quotation rule.
- mgobjAssessedValue: assessed characteristic value to be computed.
- mgobjValueContext: assessment node of current assessed characteristic value.
- mgcolAnswers: list of answers figuring in computing the assessed characteristic value.

Macros example

The **HOPEX Enterprise Risk Management** proposes a default macro: "ERM - Answer quotation rule". This macro can be reused.

The assessed characteristic value corresponds to the average of answers collected.

AGGREGATION SCHEMAS

An aggregation schema is a series of steps used to consolidate assessment results according to specified assessment rules.

Obtains global results for an assessment. These results are available in aggregation reports.

☛ *Two different aggregation schemas can give different global results from the same assessment.*

An aggregation schema can be applied before effective start of the session to prepare reports and dashboards.

Aggregation Schema Principle

After execution of an assessment session, the value of each assessed characteristic is calculated based on the quotation rule defined for the assessment template.

An aggregation schema enables calculation of the value of an assessed characteristic for a root object from calculated values for child objects.

Aggregation Schema Examples

In the example of assessment of the impact of risks connected to entities, the impact value should be calculated for each assessment node.

The value of the "Impact" of the "Fraud" risk in the context of the "United States" entity is an example of an assessment node.

If the "United States" entity comprises several sub-entities (States or Cities), themselves exposed to a "Fraud" risk, each of these sub-entities is associated with an assessment node with its own impact value.

For example, you can calculate impact value of the "Fraud" risk for the "United States" entity from assessed characteristics values for each sub-entity (State or City).

☛ *For an example of an aggregation schema, see the* ***HOPEX Enterprise Risk Management*** *guide, chapter "Assessment with* ***HOPEX Enterprise Risk Management****", paragraph "Template Detail".*

Creating Aggregation Schemas

The aggregation schema is defined in the aggregation template. It is defined by a sequence of ***aggregation steps*** designed to consolidate assessment results according to ***aggregation rules***.

Aggregation schema

To create an aggregation schema associated with an assessment template:

1. Open the dialog box of the assessment template that interests you.
2. Select the **Assessment Template Definition** tab and the **Aggregation Schemas** subtab
3. Select the **Aggregation Schema** folder and click **New**.
   The aggregation schema creation dialog box opens.
4. Indicate the **Name** of the schema you want to create, and a comment.
5. Click **OK**.

A ***weighting factor*** can be defined in the aggregation schema. This is an attribute or plug-in.

Aggregation steps

Creating an aggregation step

To create an aggregation step including aggregation rules:

1. Open the dialog box of the assessment template that interests you.
2. Select the **Assessment Template Definition** tab and the **Aggregation Schemas** subtab
3. Expand the folder of the aggregation schema that interests you.
4. Select the **Aggregation** folder and click **New**.
5. Select the method of grouping results in the aggregation step created.
   - By **substitution**: a set of assessment nodes is replaced by another set

     ☛ *Aggregation by substitution replaces assessment Context objects by other objects. Substitution definition should specify the path that determines new substituting objects from substituted objects, with the list of aggregation rules to be applied.*
   - By **reduction**: an assessment node is removed from the context collection

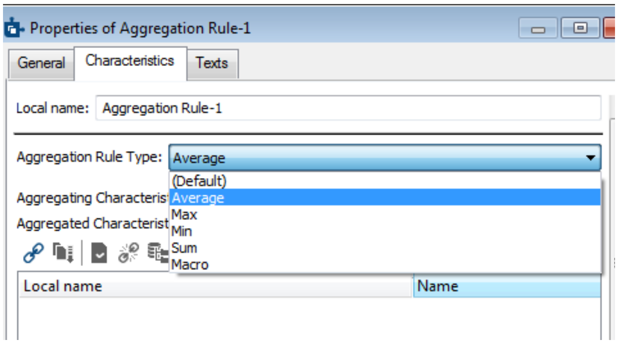
     ☛ *Aggregation by reduction enables elimination of Context objects defined in the assessment session context collection.*
   - By **distribution**: a set of nodes is redistributed on new nodes

     ☛ *Distribution enables redeployment of the values of another aggregation step according to new contexts.*

   You must now create an aggregation rule corresponding to the aggregation step.
6. In the **Aggregation Rule** section, click **New**.

7. Specify the **Aggregation Rule Type**.
   - MIN, MAX, SUM, AVERAGE
   - Macro

     ☛ *For more details, see "Aggregation rule types", page 102.*



8. Select the **Characteristic** that carries the result of aggregation.
9. Connect the **Aggregated Characteristics** corresponding to potential assessed characteristics to which the aggregation step relates.
10. Click **OK**.

Aggregation rule types

In "Macro" type aggregation rules, the macro should have the following signature:

```
Sub aggregationRuleCompute(mgobjAggregationRule As
MegaObject,mgobjOutAssessedValue As MegaObject)

End  Sub
```

where:

- mgobjAggregationRule = the current aggregation
- mgobjAssessedValue: assessed characteristic value to be computed.

Simulating Aggregation

The assessment designer or manager can simulate aggregation without having to start an assessment session.

This calculation will produce a simulated value for assessed characteristics values. The objective is to check consistency of the aggregation schemas and the validity of calculations.

To simulate aggregation:

1. In the **Assessment Definition** navigation tree, expand the "Assessment Sessions" folder.
2. Right-click the session that interests you and select **Simulate Values**.

Executing Aggregation Schemas

To execute an aggregation schema, you must connect to **HOPEX Web Front-End** with the role "Assessment Designer".

To execute an aggregation schema:

1. In the **Assessment Definition** navigation tree, expand the **Assessment Sessions** folder.
2. Right-click the assessment session that interests you and select **Execute Aggregation Schema**.

   ☛ *In the context of HOPEX solutions, it is easier to execute the aggregation schema by launching the aggregation report proposed by default.*

Execution of the schema produces:

- nodes of the aggregation tree, created from basic nodes created at deployment
- target assessed characteristics values.

CUSTOMIZATION EXAMPLES

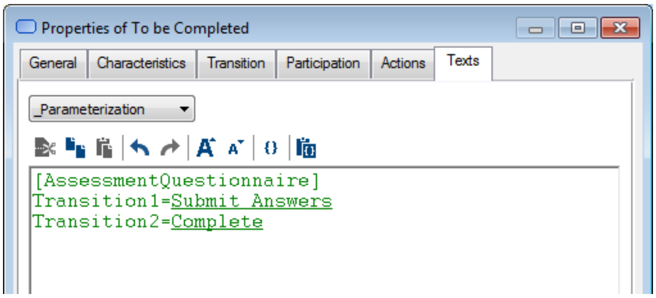
Below are examples of questionnaire template customization.

Triggering a Transition at Questionnaire Closing

The standard workflow definition "Assessment Questionnaire" proposes the configuration required to trigger a workflow transition at questionnaire closing. This configuration must however be activated to be effective.

To access this configuration:

- In the "Assessment Questionnaire" workflow definition, open the properties of "To be completed" status.
  The "_Parameterization" text is presented as follows:



This configuration is activated in certain questionnaire templates available in solutions. If you want to implement it in your own assessment templates, you must activate this configuration.

To activate this configuration:

1. From an assessment template, open the properties of the questionnaire template that interests you.
2. Select the **Questionnaire Presentation** tab.

3. In the **Trigger Transition at Questionnaire Closing** field, select the required value.

When closing the questionnaire, the transition is not triggered automatically: a message invites the user to trigger it.

Configuring Direct Assessment

HOPEX Assessment enables assessment of objects directly without passing via assessment campaigns or sessions.

HOPEX solutions provide assessment templates for direct assessment. You can add questions to questionnaire templates supplied by default.

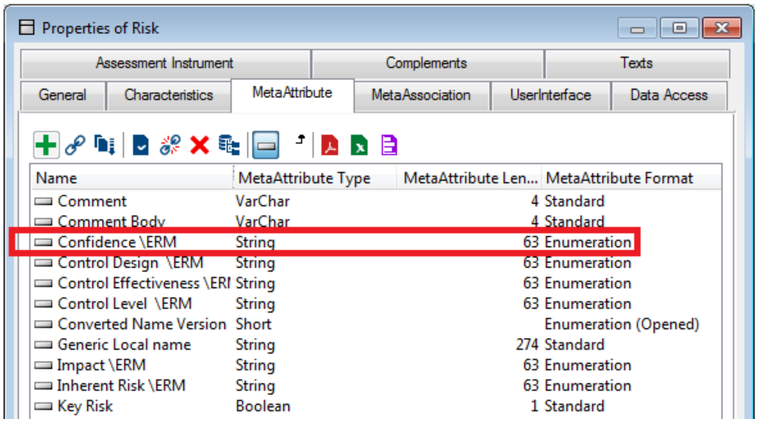
You can also carry out direct assessments on object types other that those supplied by **HOPEX** solutions.

Adding questions to a direct assessment template

To add a question to a direct assessment template, you must create a MetaAttribute on a MetaClass.

To create an attribute on a MetaClass:

1. In the properties dialog box of a MetaClass, select the **MetaAttribute** tab and create a MetaAttribute.



2. In the properties of the MetaAttribute created, select the **Characteristics** tab, then the **Advanced** subtab.
3. In the **Extended Properties** field, select **Activate Images**.
   You can now connect a MetaPicture to this MetaAttribute via the explorer.

Creating a direct assessment template

You can also create a completely new template for your direct assessment.

To do this, see .

- "Definition of an Assessment Template", page 53
- "Questionnaire templates", page 69
- "Questionnaire Contents", page 76

You can also:

- create an assessed characteristic corresponding to MetaAttributes created.

  ☛ *See "Managing Assessed Characteristics", page 55.*

- initialize questionnaire templates

  ☛ *For more details, see "Initializing questionnaire templates", page 70.*

Creating a direct assessment properties page

Having created your direct assessment template, you must create a properties page on the MetaClass concerned to be able to start assessment on an object.

```
In this way you can create for example an Assessment tab in
the properties page of a process (if you have created an
assessment template concerning processes).
```

To create this properties page:

1. Check that the assessment template you have created:
   - is connected to the MetaClass concerned

     ☛ *For more details, see "Specifying Assessed Object Type", page 54.*
   - is "Direct Assessment" type

     ☛ *For more details, see "Defining Assessment Template Properties", page 53.*
2. Explore the MetaClass concerned.
3. Right-click the MetaPropertyPage folder and select **New**.
   The MetaPropertyPage creation dialog box opens.
4. In the **MetaPropertyPage Type** field, select the "Direct Assessment" value.
   The MetaPropertyPage is automatically created.

In the properties of an object corresponding to this MetaClass, a new **Assessment** tab appears. You can carry out direct assessments in this tab.

Connecting the Objects of an Answer to an Assessed Object

HOPEX can be used to answer a question by connecting **HOPEX** objects. For more information on this configuration, see "Connecting HOPEX objects", page 82.

It can be useful to connect the object given in response to the assessed object.

```
Example: the respondent may want to attach an issue to the
question. It is important here to be able to connect the
issue to the assessed control.
```

To connect the answer object to the assessed object:

1. Be sure you have specified the object type to be assessed in the properties page (**Assessable Objects** tab):
   - of the questionnaire template
   - or the question group
   - or the question
2. In the properties page of the question, specify the **Referenced MetaClass** ("issue" in our example).
3. In the properties page of the question, in the **Link Answered Object**, select the name of the link in question.

   ☛ *This field lists the possible MetaAssociations between the MetaClass of the question and the referenced MetaClass specified. The questionnaire template needs to be linked to the MetaClass through the MetaClass/Assessment Instrument link.*

ASSESSMENT WORKFLOWS

This chapter presents workflow diagrams available in the framework of assessment. There are three different workflows:

- ✓ Assessment Campaign Workflow
- ✓ Assessment Session Workflow
- ✓ Questionnaire Workflow

These three workflows are sequenced and nested so as to send questionnaires to respondents.

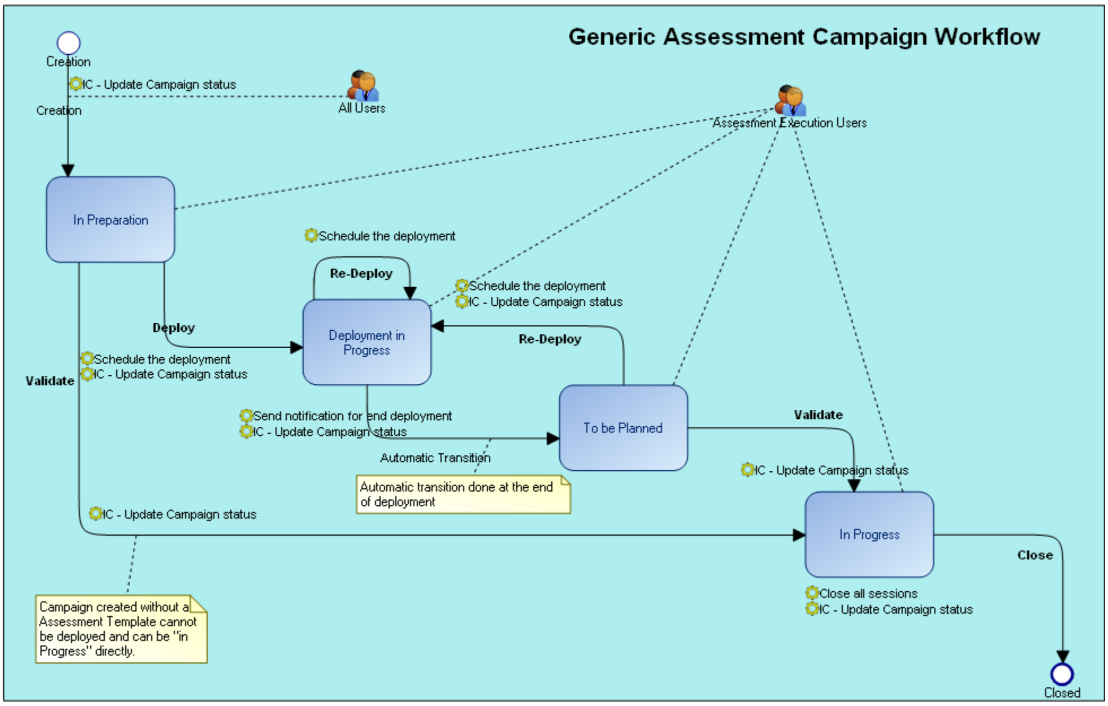
Automatic workflows also exist (for example for executing controls in **HOPEX Internal Control**).

- ✓ "Generic Assessment Workflows", page 110
- ✓ "Automatic Assessment Workflows", page 113

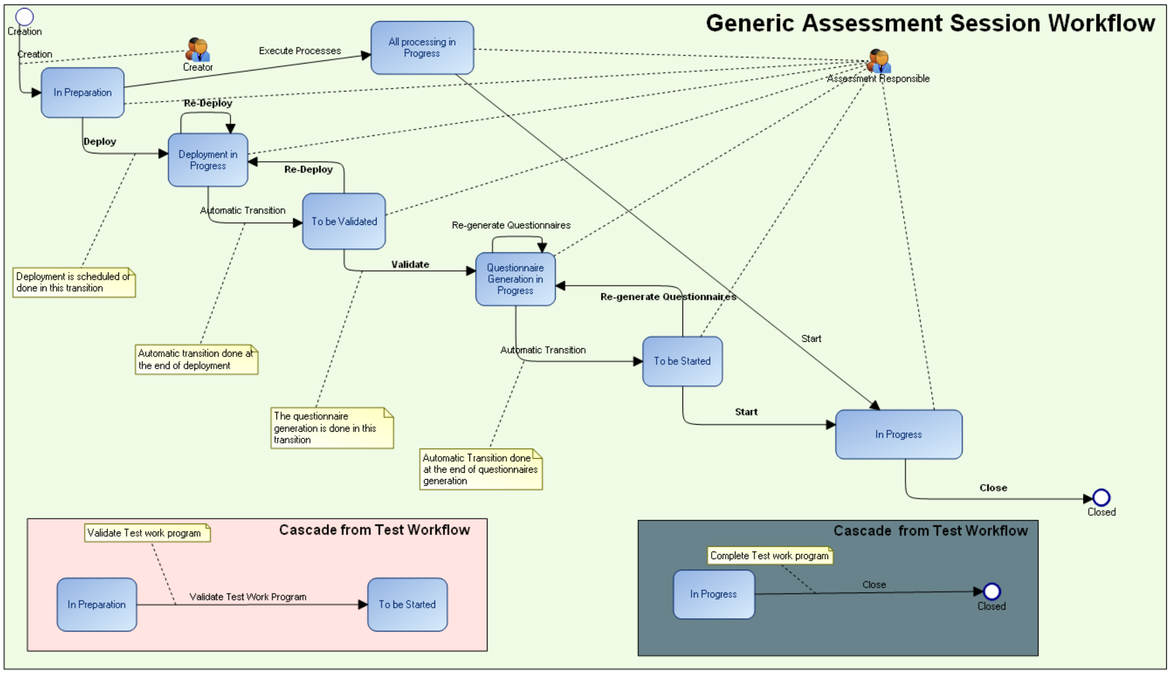
GENERIC ASSESSMENT WORKFLOWS

☛ *For an example of the sequence flow possible for workflow with campaign, see "Steps of assessment workflow with campaign", page 44*

Assessment Campaign Generic Workflow



Assessment Session Generic Workflow



Questionnaire Generic Workflow

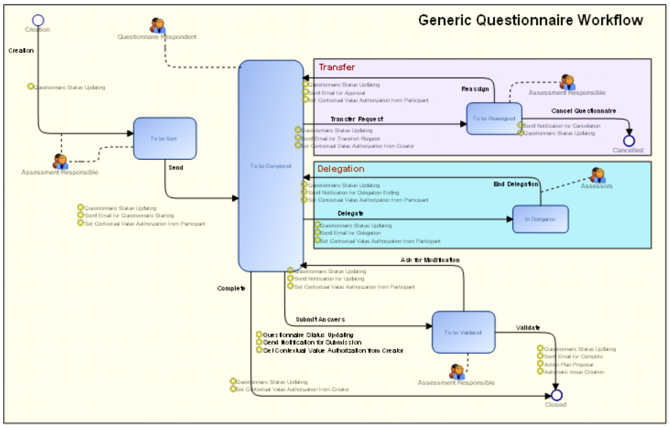
Questionnaires are connected to an assessment session and contain one or more questions.

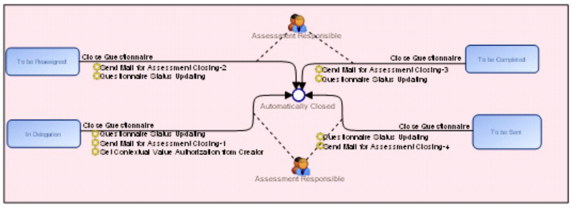
Questionnaires are generated according to the scope defined in the assessment session, the assessment template and the assessment questionnaire.

They are sent automatically to respondents when the assessment session starts.

The respondent can transfer the questionnaire to the assessment manager if he/she is not the appropriate respondent. The respondent can also delegate the questionnaire to another respondent if all or part of the questionnaire can be delegated.

The respondent closes the questionnaire having completed it if the workflow does not include validation. The respondent can also send it for validation to the session manager.





Automatic Assessment Workflows

Automatic workflows use the scheduler to automate all assessment functions, from creating sessions to sending questionnaires (check-lists in the context of the **HOPEX Internal Control** solution).

The campaign owner starts the campaign. Sessions are created and deployed automatically according to the steering calendar associated with assessed objects.

A steering calendar enables execution of recurring actions at timespots predefined on steering dates. It can be used for example to send reminders to the person responsible for an action plan so that they can indicate its progress. It can also be used to automatically trigger the start of assessment sessions at regular intervals.

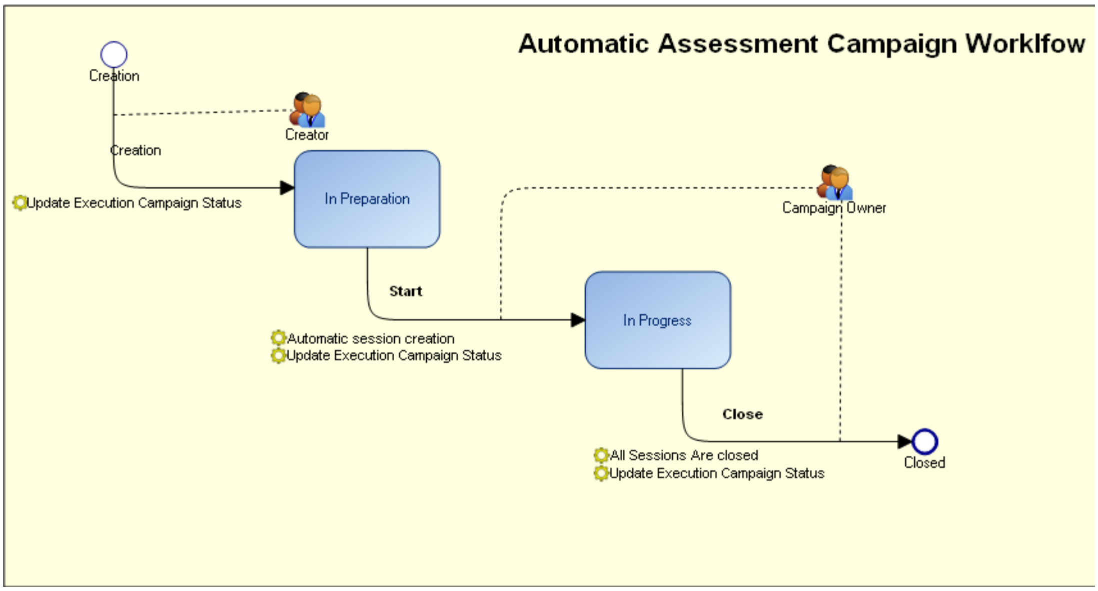
For more detail on:

- *steering calendars, see "Steering Calendar", page 1.*
- *the scheduler, see "Using the Scheduler", page 69.*

Assessment Campaign Automatic Workflow

When an automatic assessment campaign is started, one or several "jobs" are scheduled. Execution of a job consists of executing a macro, the objective of which is to:

- Close previous assessment sessions
- Create a new session, generate and send questionnaires.



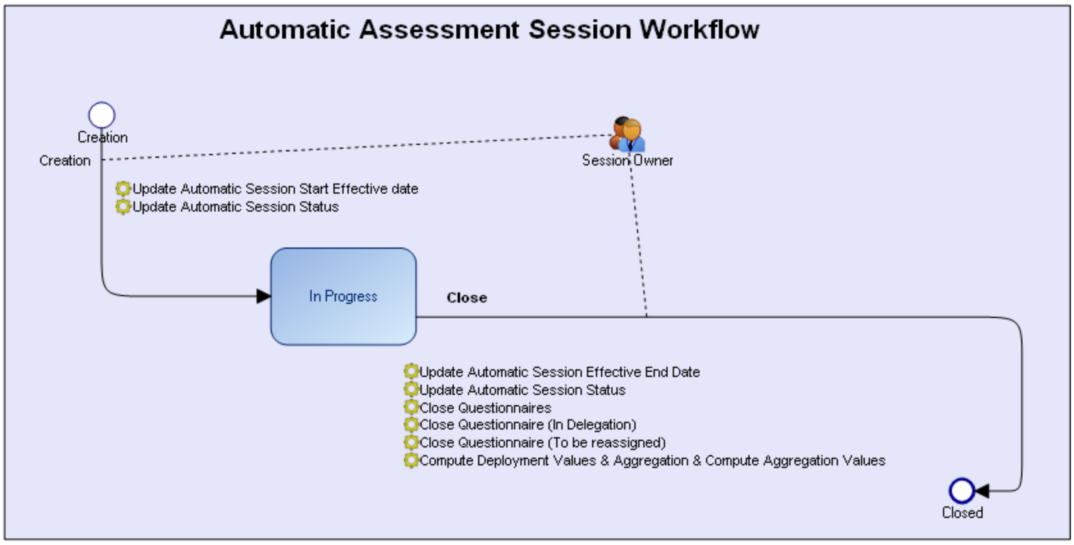
Assessment Session Automatic Workflow

All assessment sessions are connected to an assessment campaign.

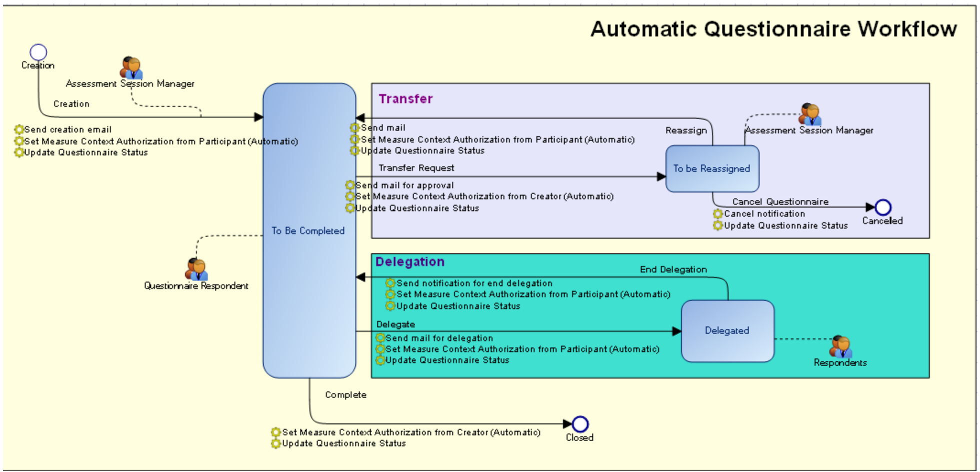
☛ *For more details on context of use, see "Executing controls", page 45.*

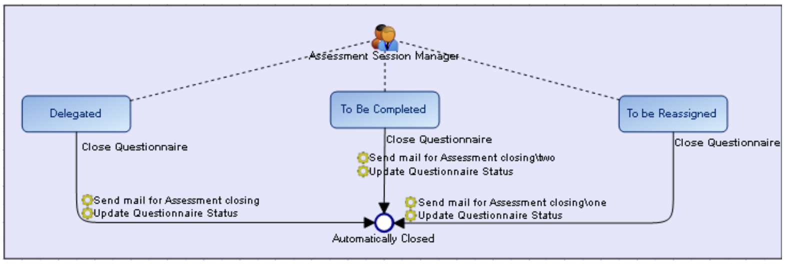
Sessions contain one or several questionnaires, sent automatically by the job periodically started according to the steering calendar.

The transition closing the session automates deployment and aggregation value calculation and closes all linked questionnaires.



Questionnaire Automatic Workflow





QUESTIONNAIRE-RELATED FAQS

How to Create the Questions of a Questionnaire?

HOPEX offers various ways of defining questions in a questionnaire.

Defining questions directly on the questionnaire template

For more details, see:

- "Questions and Answer Types", page 77
- "Question Groups", page 85
- "Types of Questions to Specify Manually", page 88

☛ *Questions created in this context cannot be shared with other questionnaire templates.*

Defining questions on the objects to assess

You can create questions directly on objects to assess or on their type. This mechanism allows to create generic questions outside a questionnaire template.

This is the case for controls in **HOPEX Internal Control**. Here you can define questions in the form of:

- control steps, within the framework of control execution: "Defining questions on controls", page 38
- testing steps, within the framework of control assessment: "Defining Test Sheet Questions", page 41
- a group of questions specific to the “Control” MetaClass: "Creating a Specific Question Group on a MetaClass", page 86.

Defining questions on intermediate objects

You can define questions indirectly on objects connected to objects to be assessed. This is the case for direct assessment in **HOPEX Customer Journey**.

Here questions are not defined directly on the objects to assess (customer journey steps). These are defined on intermediate objects (communication channels).

☛ *For more details, see "Defining questions", page 129.*

Other FAQs (about Questionnaires)

Is it possible to delegate parts of a questionnaire ?

Yes. For more details, see "Delegating a Questionnaire", page 34.

Is it possible delegate “context 1” to “user A” and “context 2” to “user B”?

Yes. You have two possibilities:

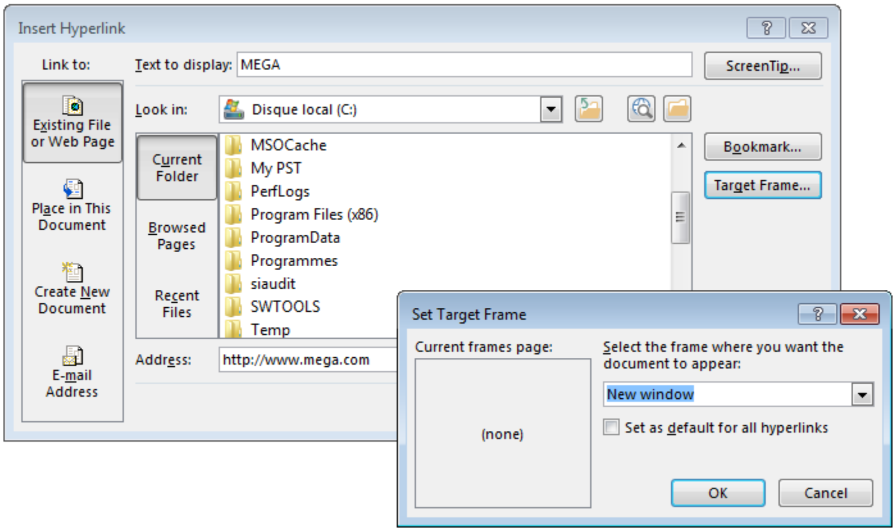
- Divide the questionnaire into several questionnaires (1 node per questionnaire). In this case you have to set up a rule to deduce users A and B.
- Build a single questionnaire for all contexts and send this questionnaire to users A and B. In this case you have to define display conditions to hide questions (the conditions may apply to the context objects of each node).

  ☛ *See also "Conditions on question display", page 97.*

How to insert a hyperlink into the text of a questionnaire ?

To insert a hyperlink into a text:

1. Open a text editor other than **HOPEX** (MS-Word for instance).
2. Insert the desired hyperlink, for instance: MEGA, with http://www.mega.com as a URL).
3. Parameterize the URL so that the link opens in a new window.



4. Copy the link and paste it into the **HOPEX** text.

Appendix: Assessment Plugins

The aim of this document is to explain how Assessment plugins are used in order to customize the product.

Insight. Collaboration. Value.

Assessment Deployment Collection

The objects of the Assessment Deployment Collection define assessment scope which is the list of objects to be assessed, the context list where the objects will be assessed or the respondents who will evaluate the objects.

1. Assessment Deployment Collection type

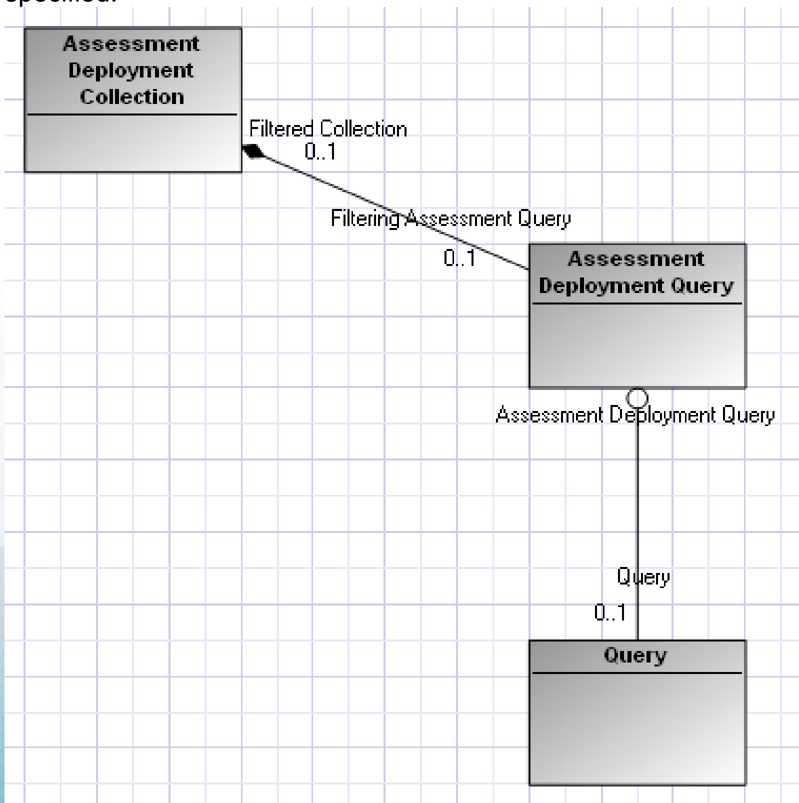
There are four types of Assessment Deployment Collection:

- *Objects to assess*: The collection defines objects to be assessed.
- *Context objects*: The collection defines context objects where the assessed objects will be assessed.
- *Respondents*: The collection defines the users who will be asked to evaluate the assessed objects.
- *Objects to assess & Context objects*: The objects defined by the collection are at the same time assessed objects and contexts.

2. Assessment Deployment Collection filling modes

There are four modes to fill the Assessment Deployment Collection:

- *Object List*: This mode allows connecting objects directly from the repository. This can be done via the two links ***Generic Object*** and ***Generic Object System.***
- *Query*: The Query mode allows using an HOPEX query to fill the collection. If the HOPEX query has parameters, it is necessary to create parameters in the deployment query and to map them to the HOPEX query parameters. Thus, each parameter deployment can specify how the value will be specified.

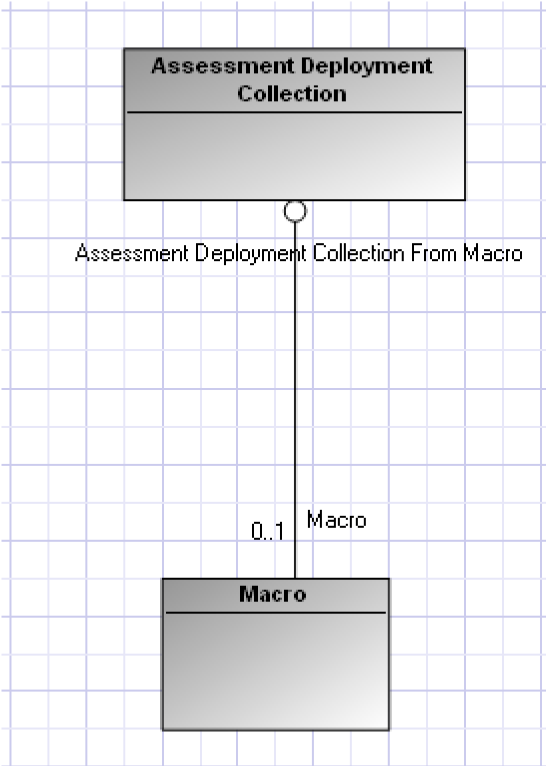


- *Macro*: The filling mode by macro allows calling a specific macro to find objects of Deployment Collection.
  The macro must define a method named '***assessmentCollectionFill'*** with this signature:

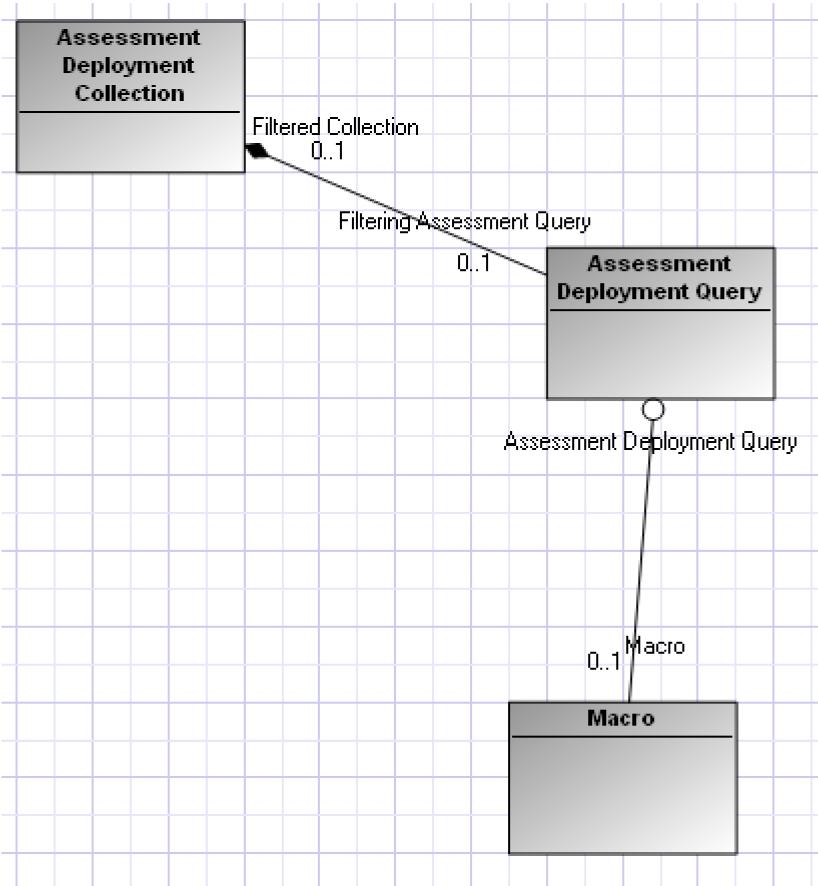
  Sub assessmentCollectionFill(mgobjAssessmentCollection As MegaObject,mgcolCollection As MegaCollection,)
  End Sub

Arguments:

- ***mgobjAssessmentCollection*** : the current Collection
- ***mgcolCollection*** : The MegaCollection to return the result of the collection



- *Macro with parameters*: The filling mode by macro allows calling a specific macro to find objects of Deployment Collection.



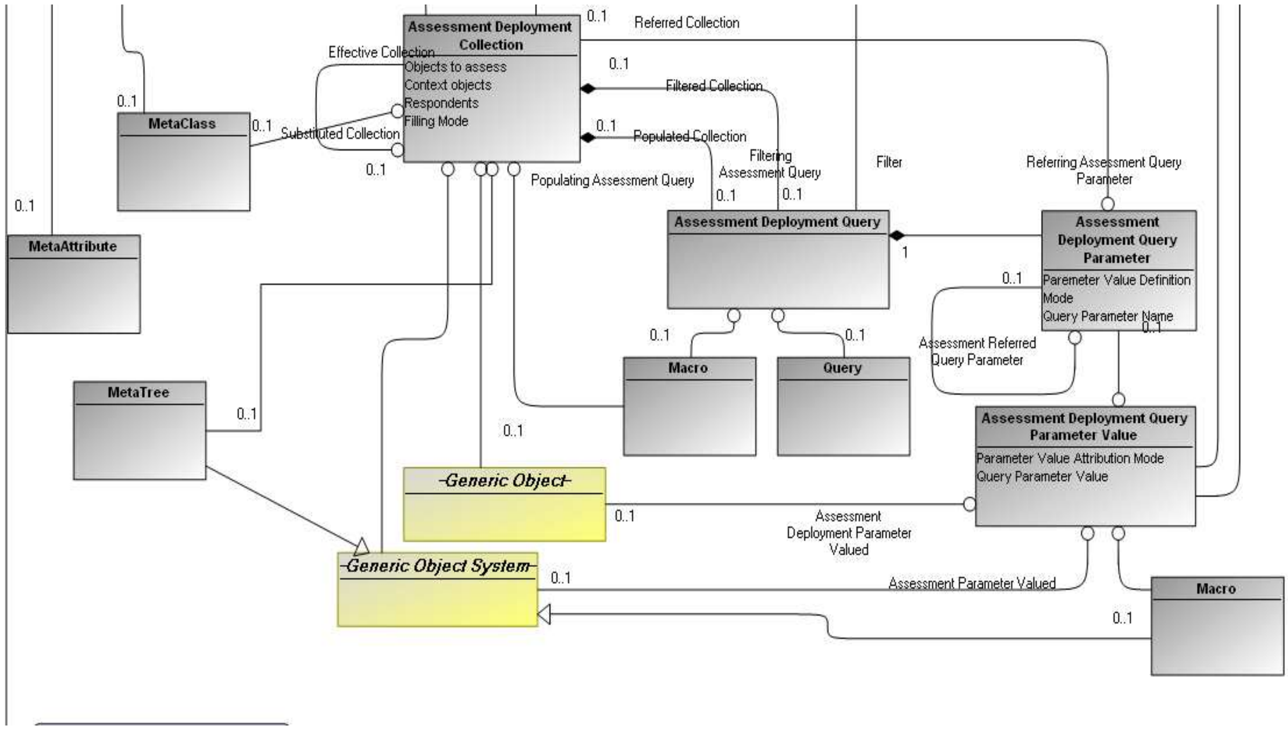
The collection can have parameters; in this case, it must have an Assessment Deployment Query to specify the parameters.
The macro must define a method named '***assessmentCollectionFill'*** with this signature:

Sub assessmentCollectionFill(mgobjAssessmentCollection As MegaObject,mgcolCollection As MegaCollection,strTreePath As String,strParameters As String)
End Sub

The *Sub* plays the same role as queries: filling the Assessment Deployment Collection in the context of Deployment. Sometimes the search of objects is too complicated to do with a Select Query and Macro Queries support only one parameter; in that case parameters must be passed to the String ***'strParameters'***. Also sometimes the need is to generate a String path instead of a collection of objects: in this case, the parameter to fill is '***strTreePath'***.
Arguments:

- ***mgobjAssessmentCollection*** : the current Collection
- ***mgcolCollection*** : The MegaCollection to return the result of the collection
- ***strParameters***: Contains the values of the collection parameters, format: parameter1MatchingName.value1,parameter1MatchingName.value2… parameterNMatchingName,valueN
- ***strTreePath***: A String containing the objects result. The format of this string is ***Object1ID:Object1MetaClass, Object2ID:Object2MetaClass…***

- *By Tree*: This filling mode allows displaying a specific ***MetaTree*** and selecting one or more objects to fill the Deployment Collection.



3- *Assessment Deployment Query Parameter(ADQP)*

An Assessment Deployment Query, which uses a HOPEX query with parameters, must create an ADQP for each of the HOPEX query parameters used. The ADQP corresponding to the query parameter indicates how to find the value so that the HOPEX query can be executed.

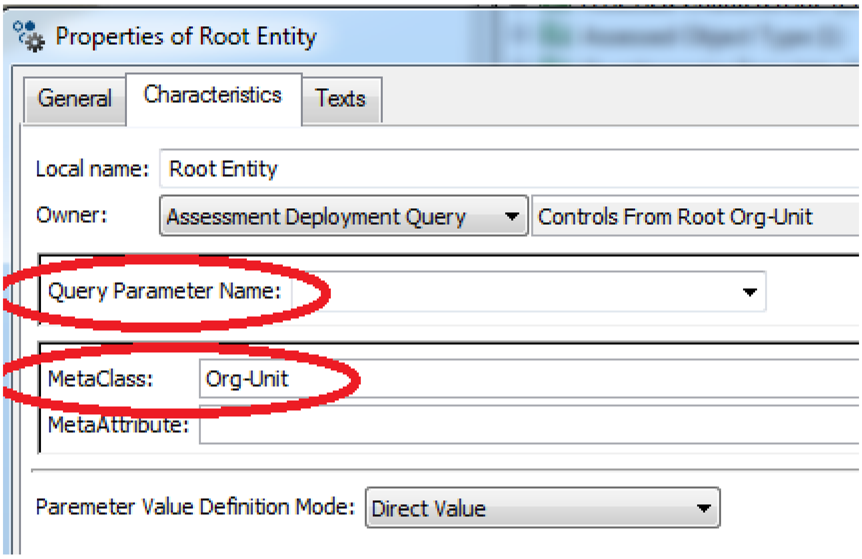
There are three types of ADQP:

- ***Direct Value***: the ADQP is associated with an Assessment Deployment Query Parameter Value which defines directly an object via the link **Generic Object** or **Generic Object System**.
- ***From Deployment Collection***: The ADQP refers another collection; its value will be the current value of the referenced collection in the context of a Deployment.
- ***Refers Parameter***: The ADQP refers another ADQP; its value will be the current value of the referenced ADQP in the context of a Deployment.
- ***Direct Evaluation***: the ADQP is associated with an Assessment Deployment Query Parameter Value which defines directly an object via the link **Generic Object** or **Generic Object System**. This ADQP is not displayed in th GUI; its value is assigned by code.

There are two ways to match the ADQP with the HOPEX query Parameter:

- ***Query Parameter Name***: This attribute contains the name of HOPEX query Parameter to match. This way is dangerous; any change in the names of the parameters of HOPEX query can cause the loss of the match.
- ***MetaClass***: If the HOPEX query parameters of a HOPEX query are of different types, using the MetaClass is more efficient than using Query Parameter Name. The match of the parameters will be

based on the comparison of the MetaClass of the ADQP and the MetaClass of HOPEX query Parameter.



If the HOPEX query contains one parameter no matching is necessary; the first ADQP found is taken.

Scoring Rule

The Scoring Rule defines the list of Answers used to compute the values of an Assessed Characteristic. It provides the Plugin handling the computation.

Each Assessed Characteristic can have multiple Scoring Rules. In the computation of an Assessed Value, one is taken into account based on its MetaTests: if no MetaTest is defined, the first Scoring Rule found is taken.

Each Scoring Rule must have a macro to compute the assessed values.

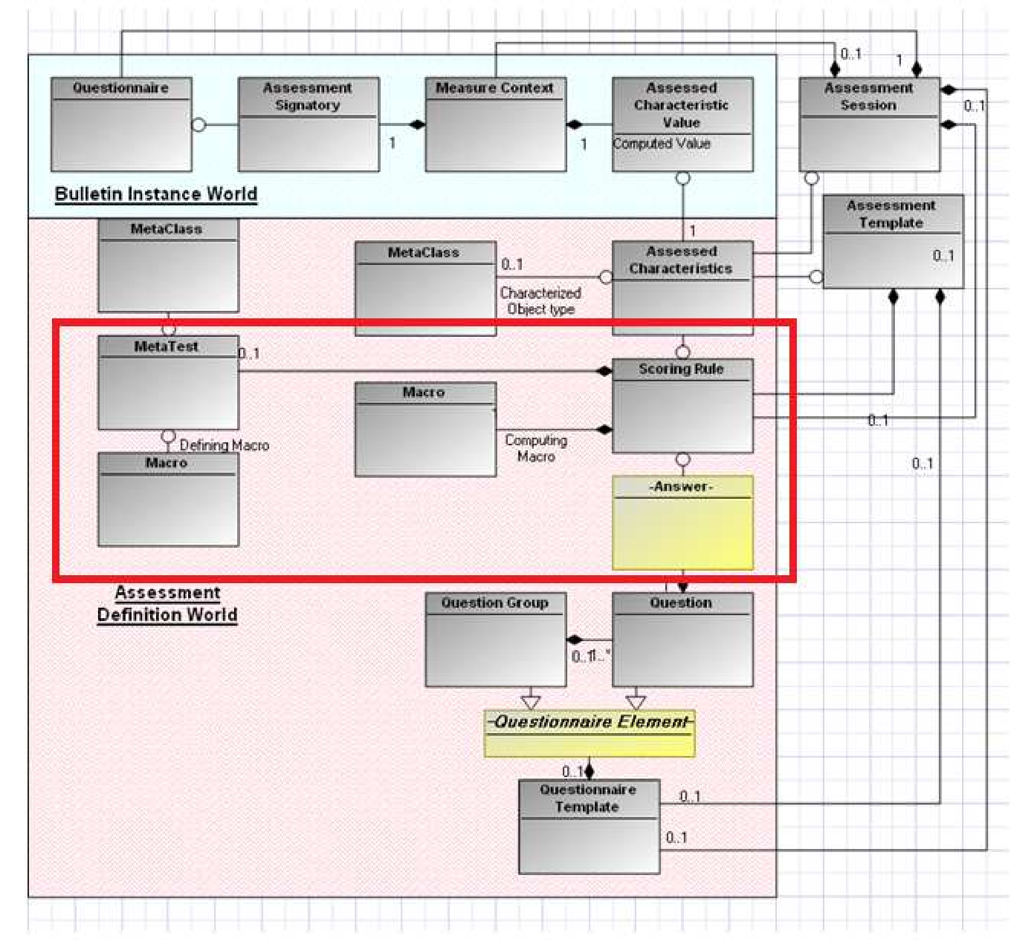
The macro must have a method named '***compute'*** with this signature:

Sub compute(mgobjScoringRule As MegaObject, mgobjValueContext As MegaObject, mgcolAnswers As MegaCollection , mgobjAssessedValue As MegaObject)

End Sub

Arguments:

- ***mgobjScoringRule***: the current Scoring Rule.
- ***mgobjAssessedValue***: The Assessed Value to compute.
- ***mgobjValueContext***: The assessment node of the current Assessed Value.
- ***mgcolAnswers***: The list of Answers that will intervene in the computation of the Assessed Value.

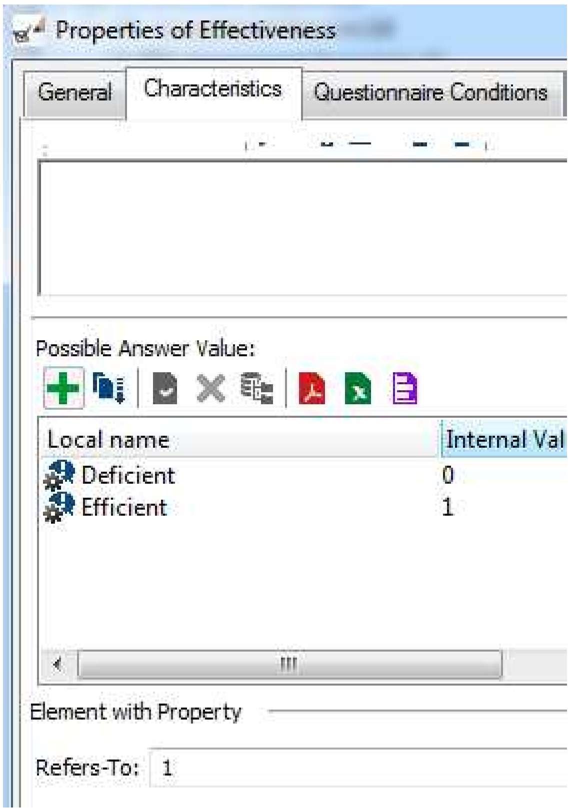


A computing Macro is defined in the ERM product and can be reused:

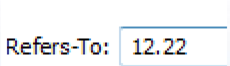
~1FtoaqSRGjbU[ERM - answer Quotation rule] : This macro puts on the Assessed Value the average of the answers collected.

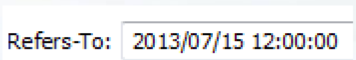
➢ *How to get the value of an Answer*

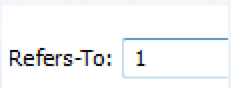
- If the Answer is a ***Unique Value*** and its type is Boolean ,String ,Date ,Percent, Short ,Float or Enumeration, the value is stored in the link MetaAttribute ***Refers-To***



Example:

Case Float: 

Case Date: 

Case Enumeration: 

(1 represents the Internal Value of the Possible Answer Value chosen in the questionnaire)

To get the value of the Unique Value use this expression:

MeasureContext.getProp(Answer.getID, "internal")

In case of Enumeration, the expression returns the Internal Value of the Possible Answer Value.

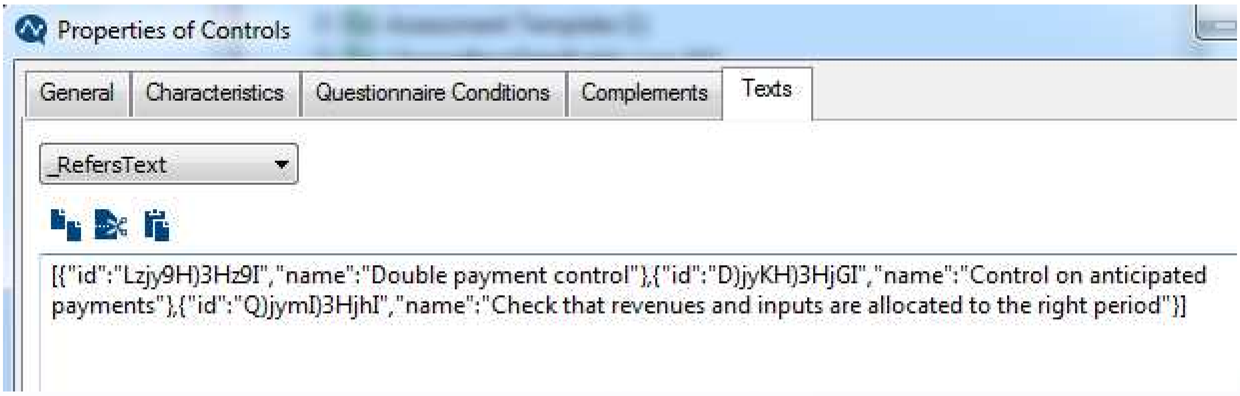
- If the Answer is a ***Unique Value*** and its type is VarChar, the value is stored in the link MetaAttribute ***_RefersText***

To get the value of the Unique Value use this expression:

MeasureContext.getProp(Answer.getID, "internal")

Or *MeasureContext.getProp (Answer.getID)*

- If the Answer is a ***Multiple Value*** the value is stored in the link MetaAttribute ***_RefersText.*** The Answer must be of type VarChar.



To get the value of the Multiple Value use this expression:

MeasureContext.getCollection(Answer.getID)

Control Steps

- *Definitions*

Control Step are Questions defined on Controls. These questions are not linked directly to a Questionnaire Template but on the Controls or the Control MetaClass. There are two types of Control Steps:

- Specific Control Steps: Theses Steps are defined directly on the Control, that means that they will be displayed in the context of Assessment Nodes where the assessed object is this control.

- Global Control Steps: Theses Steps are defined on the MetaClass **Control**, that means that they will be displayed in the context of assessment nodes where the assessed object is a Control.

- *Use of Control Steps in values computation*

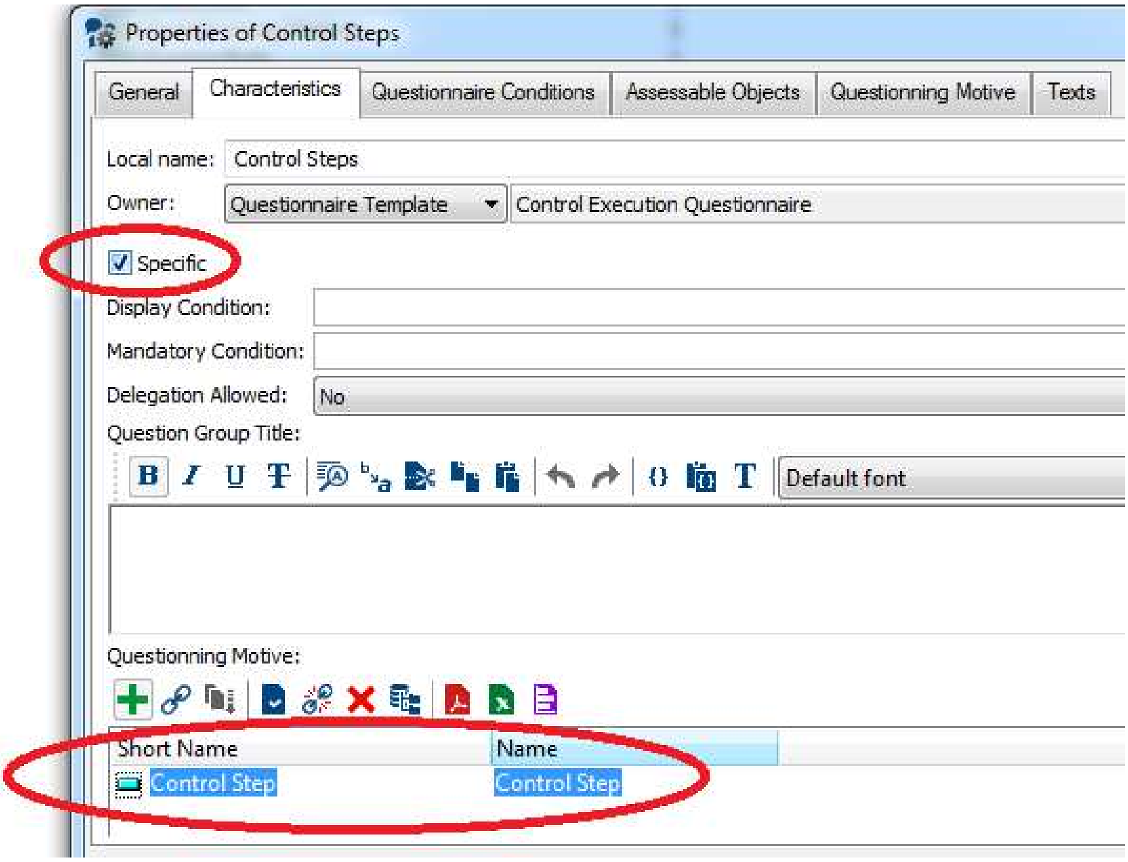
In case of use of Controls Steps, the Macros of Scoring Rules must define another signature to take into account values from these Steps. The signature used is:

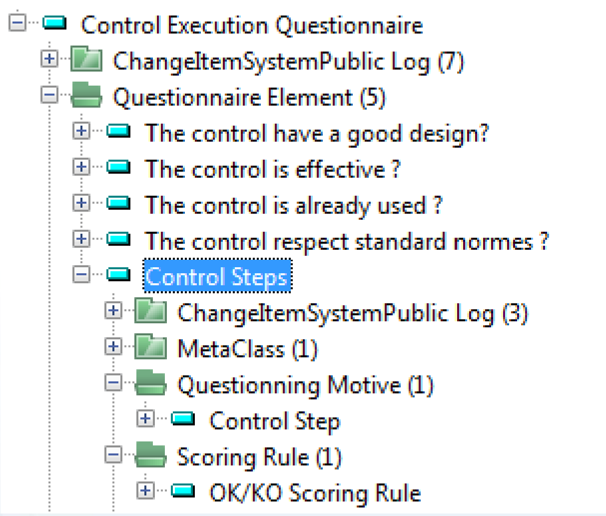
```
'Sub dynamicCompute(scoringRuleInformation)
'End Sub
```

scoringRuleInformation: An object containing these information:

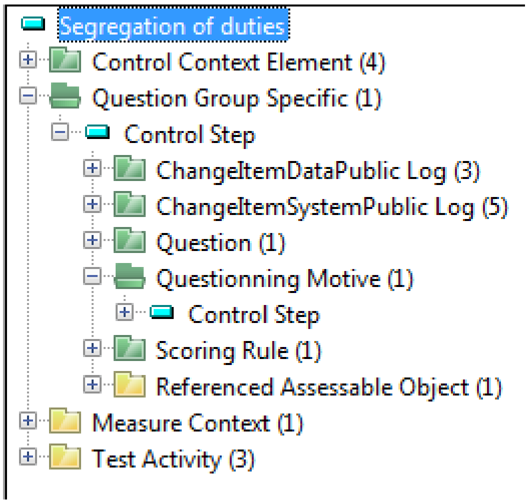
- ***scoringRuleInformation.getMgobjScoringRule***: The current Scoring Rule
- ***scoringRuleInformation.getMgobjAssessedValue***: The Assessed Value to compute
- ***scoringRuleInformation.getMgobjValueContext***: The Measure Value of the current Assessed Value
- ***scoringRuleInformation.getMgcolAnswers***: The list of Answers collected from the questions of the Questionnaire Template.
- ***scoringRuleInformation.getMgcolAssAnswers***: The list of Answers collected from the Control Steps of the Control (the Assessed object of the current assessment node).
- ***scoringRuleInformation.getMgcolMCAnswers***: The list of Answers collected from the Control Steps of the MetaClass Control.
- ***scoringRuleInformation.getDblValue***: The value computed by applying the Scoring Rule defined on Control Steps of the Control (the Assessed object of the current assessment node).
- ***scoringRuleInformation.getDblValueAss***: The value computed by applying the Scoring Rule defined on Control Steps of the MetaClass Control

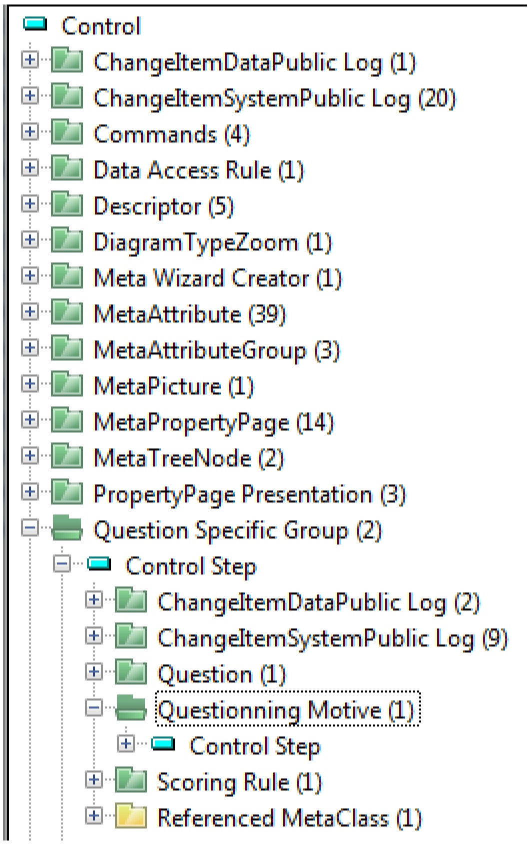
To tell the Questionnaire Template to display the Control Steps, a Question Group of type 'Specific' must be defined on the Questionnaire Template and linked the Assessment Motivation 'Control Step'.





Control Steps are defined either on Control or on the MetaClass **Control:**





They are collected in a Question Group which must be linked to the Assessment Motivation '**Control Step'.**

The Question Group can also define Scoring Rules to compute values for its Control Steps.

The Macro of these Scoring Rules must define a method named '***specificCompute'*** with this signature:

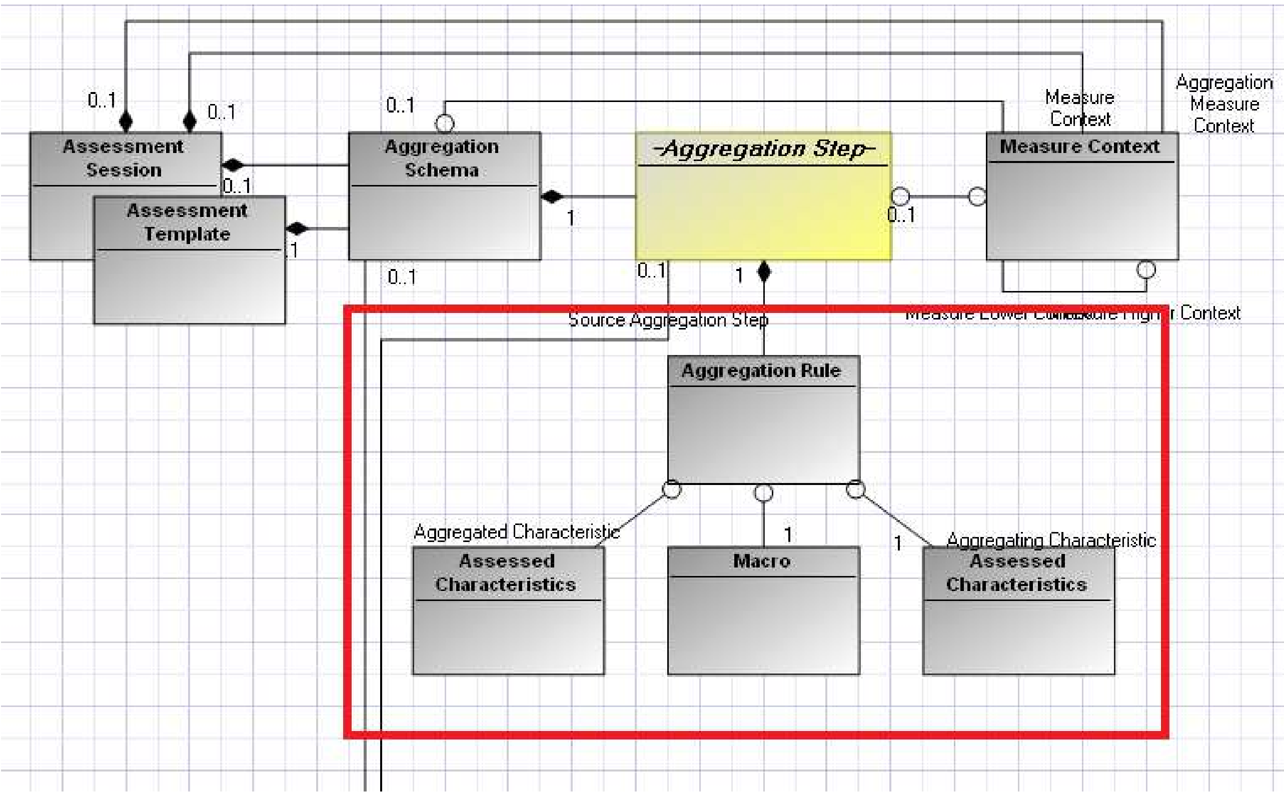
Sub specificCompute(scoringRuleInformation)

End Sub

In this macro you can fill the double parameter (***setDblValueAss*** for the Control Steps on the Control, ***setDblValue*** for the Control Steps on MetaClass Control) or the list of Answers (***getMgcolAssAnswers*** for the Control Steps on Control, ***getMgcolMCAnswers*** for the Control Steps on MetaClass Control).

Aggregation Rules

Aggregation rules enable computation of parent node values from their children using computation macros. Several rules are predefined, for example: max, min, sum, average and use Plug-ins supplied as standard. The Type Macro rule must be associated with a plug-in specifying value calculation.



There are five modes to compute Aggregation Values:

- ***Average***: This macro puts on the parent Assessed Value the average of values from its children.
- ***Max***: This macro puts on the parent Assessed Value the max of values from its children.
- ***Min***: This macro puts on the parent Assessed Value the min of values from its children.
- ***Sum***: This macro puts on the parent Assessed Value the sum of values from its children.
  For these four standard macros, if the Assessed Characteristic is linked to an enumeration MetaAtrribute, a MetaAtrributeValue of this MetaAtrribute is linked to the Assessed Value to compute.
  Example:
  If the MetaAtrribute have three MetaAttributeValues X, Y and Z with respectively these internal values **x**,**y z** (x<y<z)
  If the value computed is **d** then if:
  d<=x => MetaAttributeValue to connect: X
  x<d<=y => MetaAttributeValue to connect: Y
  y<d<=z => MetaAttributeValue to connect: Z
  z<d => MetaAttributeValue to connect: Z

- ***Macro***: Used when the IP want to customize his computation. The macro must have this signature:

```
Sub aggregationRuleCompute(mgobjAggregationRule As MegaObject,mgobjOutAssessedValue As MegaObject)
End Sub
```

mgobjAggregationRule: The current Aggregation.

mgobjOutAssessedValue: The Assessed Value to compute.

Other parameters as the assessment node, Assessed Characteristic, or Assessment Session can be got from these two parameters.

Check Regulation

1-Assessment Template

- A template Collection must be substituted by at most one Collection from a Session
- A template must have at least one Questionnaire Template
- A template must have at least one Assessed Characteristic
- A template must have at least one Assessor Collection and at least one Assessed Collection

2-Questionnaire Template

- A Questionnaire Template must have at least one Question or question Group
- A Questionnaire Template must have a Presentation

3-Assessment Deployment Collection

- A collection must have a type
- A collection must have the same properties as the substituted collection
- A collection must substitute only List Object collections
- A Collection of type List Object must be linked to at least an object
- A collection of type List Object must not have an Assessment Deployment Query
- A Collection of type Query must be linked to a Mega Query
- A collection of type Query must not have neither Generic Objects nor System Objects
- Template collections must not substitute other collections
- An Assessment Deployment Query must have the same number of parameters as its associated Mega Query

4-Answer

- An Answer must have a type
- An Answer of type Enumeration must have at least two Possible Answer Values

5-Assessment Deployment Query Parameter

- A parameter that refers to a collection must not contain an Assessment Deployment Query Parameter

6-Question

- A Question Definition must be associated with an Answer Definition
- A Question must be associated with at least an Object or an Object Type
- A Question must have a Question Text assigned

6-Scoring Rule

- A Scoring Rule must have a computing Macro
- A Scoring Rule must have an Assessed Characteristic and at least an Answer to a Question from a Questionnaire Template from the same Session or Template as the Quotation Rule

7-Aggregation Step

- A Distribution must have an Aggregation Step and an Aggregation Schema compatible
- An Aggregation Distribution must have a Source Aggregation Step if it is the first step of an aggregation Schema