HOPEX Collaboration Manager

HOPEX V1

INTRODUCTION TO HOPEX COLLABORATION MANAGER

The following is detailed hereafter:

Communicating in MEGA

MEGA simplifies team working and makes available different means of communication in your **MEGA** desktop. You can:

- work on objects with certain users without other users seeing your work.
- create and participate in threads of posts on objects.
- create alerts on objects to follow their ongoing modifications.
- participate in chats, independently of the **MEGA** desktop (**MEGA Web Front-End**) in which you are working.

Workflows

Workflows enable automation of collaboration between the different participants during modeling work phases. The use, configuration and administration of workflows as well as transfers between repositories are covered here.

Action plans

This action plan management function consists of defining, executing and following up a certain number of actions in a project framework.

Repository Snapshots

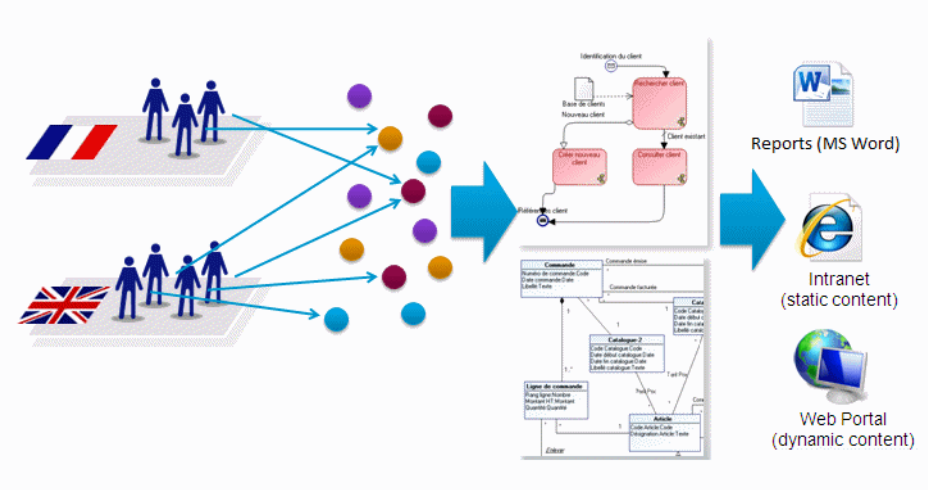
A repository snapshot identifies an archived state of the repository. They are necessary for use of various functionalities.

Workflows

Sommaire

INTRODUCTION TO WORKFLOWS

MEGA enables coordination of modeling work in a multi-user environment in order to obtain coherent and stable models.



✓ "Overview of Workflow Features", page 8
✓ "Presentation of this Guide", page 9
✓ "Prerequisites", page 11

OVERVIEW OF WORKFLOW FEATURES

Main phases of modeling activity are:

- modeling work
- validation of this work
- publication for consultation of completed models

Features

HOPEX Collaboration Manager enable automation of collaboration between the different participants during modeling work phases:

Workflow engine

Orchestration of these different functions is supported by a workflow engine, of which specificities are the following:

- Possibility of configuring existing workflows or creating new workflows
- Workflow administration
- Sending e-mails/notifications

> ☛ *Creation and configuration of workflows is available with the **HOPEX Studio** option.*

PRESENTATION OF THIS GUIDE

This guide comprises the following chapters:

- ✓ "Using Workflows", page 15, presents functions available to the end user.
  - workflow
  - request for change
  - design task
  - validation request
  - unlocking request
- ✓ "Configuring Workflows", page 41, presents functions enabling workflow creation and configuration.
- ✓ "Managing Workflows", page 77, is intended for the functional administrator and in particular presents how to access options, stop a workflow, view workflows in progress and manage permissions.
- ✓ "Managing Repository Transfers", page 89, presents features available to the administrator **MEGA**.
  - Compare and align use case
  - Modes of transfer to a production repository
  - transfer of objects via the **HOPEX Collaboration Manager** option.
- ✓ "Glossary", page 95, summarizes concepts used.

Conventions Used in the Guide

☛ *Remarque sur les points qui précèdent.*

📖 *Définition des termes employés.*

☺ *Astuce qui peut faciliter la vie de l'utilisateur.*

Compatibilité avec les versions précédentes.

Ce qu'il faut éviter de faire.

Remarque très importante à prendre en compte pour ne pas commettre d'erreurs durant une manipulation.

Les commandes sont présentées ainsi : **Fichier > Ouvrir**.
Les noms de produits et de modules techniques sont présentés ainsi : **MEGA**.

PREREQUISITES

To be able to use workflow functions you must fulfill a certain number of prerequisites.
Below is a summary of functions available with each product or option.

Product/Option	Features
HOPEX Collaboration Manager	- Requests for change - Design tasks - Validation - Transfers - Unlocking - Triggering scheduled processing
HOPEX Studio	- Workflow definition

You must work in a single environment. Additional conditions are necessary to be able to use the following functions:

Design Tasks

To be able to use design tasks, you must:

- Activate task management.
- Activate the logfile of the repository and/or the system repository for which you want to keep history of modifications associated with tasks.
- have the product **HOPEX Collaboration Manager**

> ☛ *For more details on repository log activation, see the **MEGA Supervisor-Supervisor** guide, "Managing Repositories", "Managing Logfiles".*

To activate task management:

1. From the administration application, open the desired environment.
2. Right-click the environment and select **Options > Modify**.
3. In the **Collaborative Environment** options group, select value "Enabled" for the **Associate modifications with a design task** option. Task management is activated.

> ☛ *The option can also be defined at user level.*

The **Associate modifications with a design task,** option has three values:

- if task management is **Disabled**, the user cannot dispatch his/her private workspace as a task
- if task management is **Enabled,** the user can use tasks, and can choose whether or not to associate a task with the work dispatched
- if task management is **Mandatory**, the user can only dispatch his/her work by associating it with a task.

When dispatching the private workspace as a task, the user associates all dispatched modifications with the assigned task.

Workflows

Instant notification

To be able to use instant notification, you must:

- Have a repository stored in RDBMS format

  ☛ *For more details on creation of an RDBMS format repository, see the technical article "Repository - RDBMS Installation Guide".*

- Activate the option "Activate notification pop-up window" in the "Collaborative environment" options group.

Electronic mail

So that e-mails can be sent automatically following creation of workflow actions triggered by a transition, you must configure electronic mail options at site level in **MEGA Supervisor** (**Installation** options group). An e-mail address must also be specified on each user.

Transfer of Objects

To be able to use the transfer of objects function, you must have available the **HOPEX Collaboration Manager** option.

Scheduler

The scheduler enables triggering of planned processing operations. It is used in the framework of workflows and alignment.

If you do not have **HOPEX Collaboration Manager** available, you must modify options so that actions requiring the presence of this option are ignored.

To modify scheduler options:

1. Start the Administration.exe" program.
2. Open an environment.
3. Right-click the site name and select **Options > Modify**.
4. In the tree, expand the "Installation" folder and select **Scheduler**.
5. In the right pane, in the **Scheduler client connection mode** field, select "No connection".

USING WORKFLOWS

This chapter describes how to participate in a workflow.

It describes different workflows available as standard. Other workflows are supplied with **MEGA** solutions. See the corresponding guide for further details.

- ✓ "Using Workflows", page 16: describes how to participate in a workflow.
- ✓ "Examples of Workflows Supplied as Standard", page 25 : describes some of the workflows supplied as standard.

☛ *To create your own workflow, see "Configuring Workflows", page 41.*

USING WORKFLOWS

In **MEGA**, workflows manage expected actions as well as roles of the different participants involved in execution of these actions.

Consulting Workflows

Consulting Workflows in MEGA Windows Front-End

MEGA proposes several modes for consulting workflows:

- from a tree in the **Collaboration** navigation window.
- from a list via the workspace edit area
- from an object

From the navigation window

To list workflows:

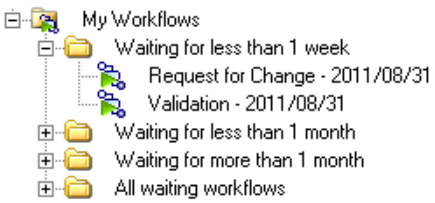
1. In the **MEGA** desktop, open the **Collaboration** navigation window.

   ☛ *To access this window, select **View > Navigation Windows > Collaboration**.*

2. Expand the folders:
   - **My Workflows.**
     This folder contains the workflows with which you are involved.
   - **Workflows of All Users**.

     ☛ *This folder is available if you have the necessary authorization (menu **Tools > Options > Collaborative Environment**, option **View workflows of all users**).*

Workflows in progress appear in the tree. They are classified according to different criteria (waiting for x months or x weeks).



From the workspace edit area

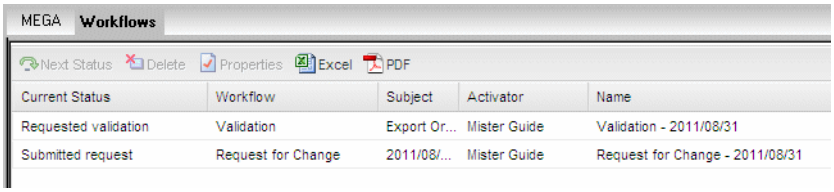
To list workflows in progress:

1. At the top of the Collaboration navigation window, click button **Workflows > List Workflows**  .

   ☛ *You have to distinguish between two workflow instances:*

   - *single-repository workflow instances, which are stored in data repositories (for instance, workflows associated to **MEGA** solutions.)*
   - *multiple-repository workflow instances, which are stored in the system repository.*

   Workflows in progress appear in the workspace edit area.



From this page, you can:

- sort workflows according to your own criteria, and modify the order of appearance of columns.
- export the list of requests for change in the form of an Excel or PDF file.

☛ *You can also use this page to participate in a workflow (**Next Status** button). For more details, see "Participating in a Workflow", page 22.*

From an object

To consult workflows in progress on an object:

- In the properties dialog box of the object, select the **Workflows** tab. Workflow history appears.

  ☛ *The **Workflows** tab only appears if the selected object is subject of a workflow instance.*

  ☛ *Only those objects that are subjects of a workflow include this **Workflows** tab.*

Consulting Workflows in MEGA Web Front-End

You can use functions linked to **HOPEX Collaboration Manager** from the Web via a dedicated desktop.

When you use the **Teamwork Desktop**available with Enterprise Architecture applications, notifications are sent each time you dispatch your work.

☛ *You must work in an RDBMS environment to be able to access this.*

Connecting directly to the Teamwork desktop

To connect to the desktop enabling workflow management on the Web:

1. Start the **MEGA** application from its HTTP address.
2. From the connection page and in the **Login** field, enter your identifier.
3. (Optional) In the **Password** field, enter your password defined by the administrator.
4. In the **Environment** field, select your work environment.

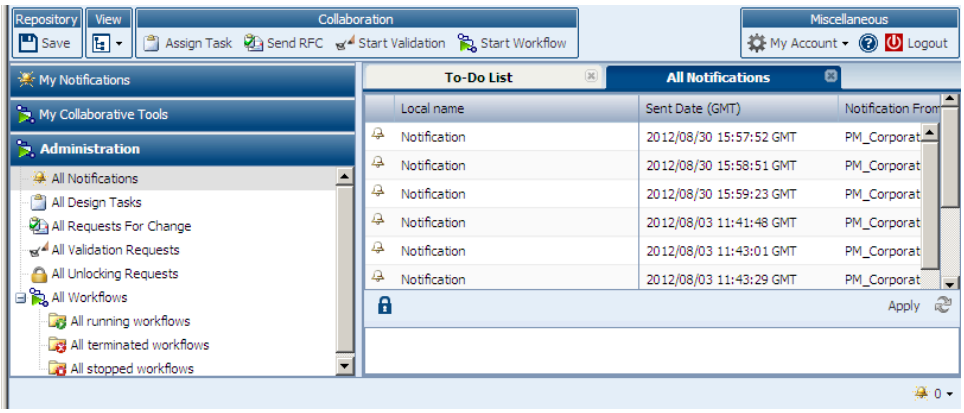
   ☛ *If you can access one environment only, this is automatically taken into account and the environment selection field does not appear.*

5. Click **LOGIN**.
   When you have been authenticated, a new dialog box appears.
6. In the **Repository** field, select the repository in which you want to work.

   ☛ *If you can access only one repository, this is automatically taken into account and the repository selection field does not appear.*
7. In the **Business Role** or **Profile** field, click the arrow and select the **Workflow Participant** business role.

   ☛ *If you have only one business role or profile, this is automatically taken into account and the business role or profile selection field does not appear.*
8. Click **LOGIN**.
   The **Teamwork** desktop Home Page appears.

   ☛ *After a certain period of inactivity, you are disconnected. To reconnect, repeat the steps of the procedure above. This inactivity period is configured by the administrator.*



☛ *You can access the **Teamwork** desktop from any **MEGA Web Front-End** product. To do this, see "Accessing the Teamwork web desktop from an application", page 20.*

You will find here the functionalities linked to workflows.

From the navigation tree on the left, you can access:

- Your notifications
- Collaborative tools to execute your tasks:
  - design tasks
    - ☛ *See "Using Design Tasks", page 28.*
  - requests for change
    - ☛ *See "Using Requests For Change", page 25.*
  - validation requests
    - ☛ *See "Using the Validation Request Workflow", page 35.*
  - unlocking requests
    - ☛ *"Using the Unlocking Request Workflow", page 37*

At top left, a **Collaboration** options group allows you to start any type of workflow:

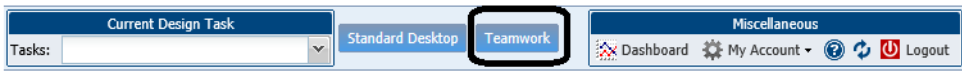
Accessing the Teamwork web desktop from an application

When you are connected to **MEGA** with the "Enterprise Architect" business role, you can consult notifications in the **My notifications** navigation window.

Yo can then access the Teamwork desktop to know more about the workflows you have to take part in.

To access the Teamwork desktop from a MEGA Web Front-End application:

1. Click the **Teamwork** button at the top right-hand side of the application:



   - ☛ *If needed, a dialog box asks if you want to dispatch changes made in your private workspace.*

The home page of the **Teamwork** desktop appears.

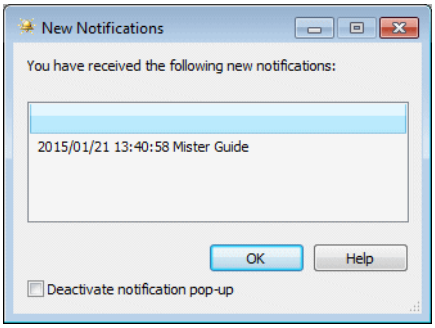
Consulting Notifications

As a workflow progresses, the user(s) assigned to the next status can receive a notification warning of the existence of a request needing attention.

- ☛ *To benefit from notifications, see "Prerequisites", page 11.*

Display of the notification dialog box in MEGA Windows Front-End

In **MEGA Windows Front-End** notifications are displayed automatically:

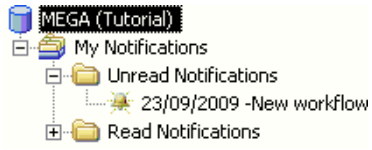


☛ *To no longer display the notification window, select option **Deactivate notification pop-up window**.*

Consulting notifications in MEGA Windows Front-End

To consult notifications in **MEGA Windows Front-End**:

1. In the **MEGA** desktop, open the **Collaboration** navigation window.
2. In the **My Notifications** folder, expand the **Unread Notifications** sub-folder.
   Notifications that concern you are contained in this folder.



☛ *You can also list notifications from the workspace edit area. To do this, in the **Collaboration** navigation window, click button*  *__Notifications > List Notifications__. A window opens in the desktop edit area.*

Consulting notifications in MEGA Web Front-End

In **MEGA Web Front-End**, notifications are sent each time you dispatch your work.

To consult notifications in **Teamwork** desktop:

- In the **Collaborative Tools** navigation window, select the **To-Do List**.

  ☛ *See "Accessing the Teamwork web desktop from an application", page 20.*

  This list gives access to the workflows you have to take part in.

  ☛ *In **MEGA** solutions, notifications are often displayed in the form of widgets in the home page.*

Starting a Workflow

To access workflows:

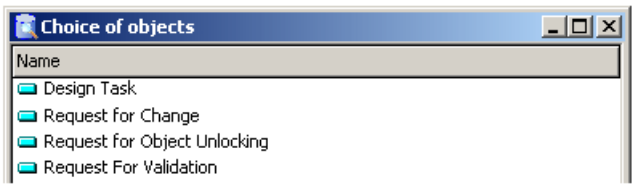
- From MEGA Windows Front-End: see "Consulting Workflows in MEGA Windows Front-End", page 16
- From MEGA Web Front-End: see "Consulting Workflows in MEGA Web Front-End", page 18

> ☛ *You must have the **HOPEX Collaboration Manager** option to be able to start a workflow.*

To start a new workflow:

1. Click the **Start Workflow** button.
   - ***(MEGA Windows Front-End)*** at the top of the **Collaboration** navigation window through  .
   - ***(MEGA Web Front-End)*** in the **Collaboration** tool group.

   Only those workflows that you are authorized to start are displayed.



2. Click the workflow that interests you then **OK**.
3. In the first dialog box of the wizard that appears, enter the workflow name.
4. In the **Workflow Subject** field, click **Create** then select an object to connect.
5. Click **OK**.
6. Enter a comment for the workflow if required and click **Next**.
7. Select the **Users** assigned to the next workflow status then click **Finish**.

> 🕮 *A workflow status corresponds to a step in progress of a workflow defined by a workflow definition.*

> ☛ *When you take part in a workflow, remember to **dispatch work made in your private workspace**.*

Participating in a Workflow

After initiation of a workflow, only those users assigned to the next workflow status can intervene in this workflow.

> ☛ *Any **MEGA** user can participate in a workflow, whatever the product used. The **HOPEX Collaboration Manager** option is not required.*

Triggering a transition from a list of workflows

To take part in a workflow:

1. Access the workflows which are of interest to you.

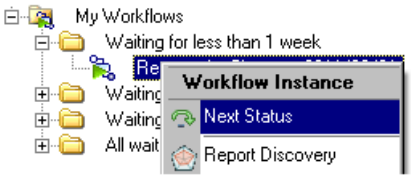
   ☛ *For more details, see "Consulting Workflows", page 16.*

   If you are assigned to the next workflow status, the workflow appears:

   - in the "All waiting workflows" sub-folder in **MEGA Windows Front-End**.
   - In the "To-Do List" of **Teamwork** desktop in **MEGA Web Front-End**.

     ☛ *The Teamwork desktop is also available when you connect directly with the "Workflow Participant" business role.*

2. To pass the workflow to the next status, right-click the workflow and click **Next Status**.



3. In the dialog box that appears, select the transition that you wish to trigger and click **Next**.
4. Enter a comment for this transition and click **Finish**.

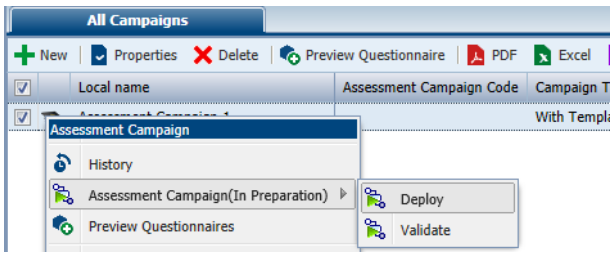
   ☛ *You can also pass to the next status from the properties dialog box of an object subject of a workflow.*

Triggering a transition from an object in a solution

MEGA solutions are based largely on workflows to manage interactions between different stakeholders.

To trigger a workflow transition from an object list:

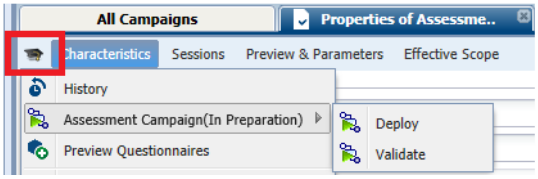
❱ Select an object in the list and in its pop-up menu select the appropriate workflow command.



To trigger a workflow transition from the properties dialog box of an object:

1. Open the properties dialog box of the object concerned.

2. Click the icon of the object and select the appropriate workflow command.



The worflow progresses: the object passes to another workflow status and a new participant can take part in the workflow.

EXAMPLES OF WORKFLOWS SUPPLIED AS STANDARD

Find below examples of workflows supplied as standard with **HOPEX Collaboration Manager** product.

☛ *Other customizable workflows are supplied with solutions. See the corresponding guide for more details.*

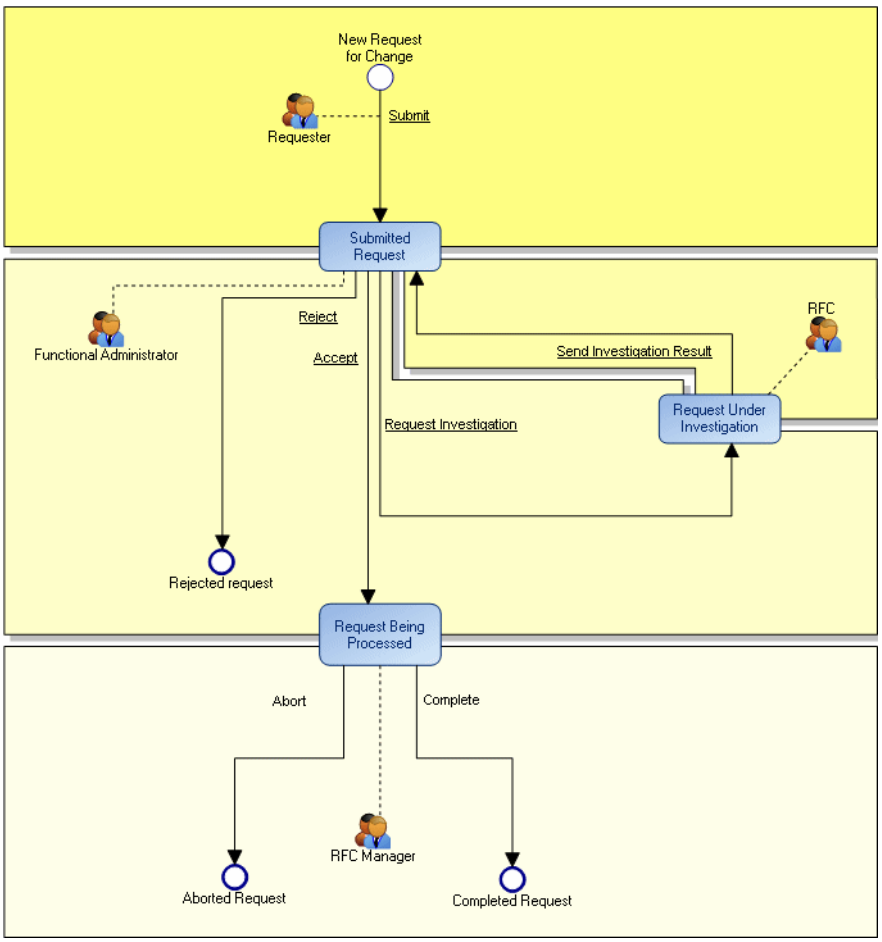
Using Requests For Change

Requests for change allow users that have the **HOPEX Collaboration Manager** option to request a modification on one or several repository objects.

Depending on workflow configuration, users receive an e-mail or a notification to inform them of the request for change.

Request For Change Workflow

The diagram that illustrates this workflow is shown below.



In this workflow, a requester makes a new request for change. The request then passes to status ***Submitted Request***.

An administrator of requests for change analyzes the request, with three possible decisions:

- accept request for change.
- reject request for change.
- request investigation from a modeler.
  In this last case, the request for change passes to status ***Request Under Evaluation***. Following evaluation, the modeler submits the outcome to the request for change administrator (the request returns to ***Submitted Request*** status).

When the request has been accepted, the requests for change administrator can decide to complete or abort it. The request for change then passes to final status ***Completed Request*** or ***Aborted Request***.

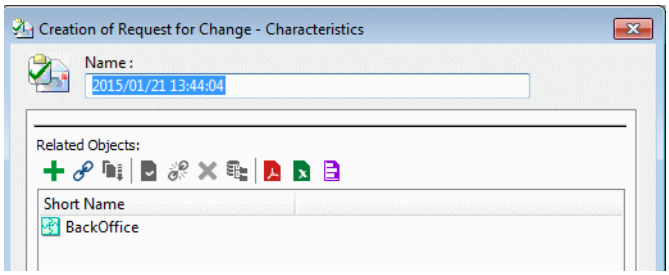
> ☛ *You can customize behavior of requests for change. To do this, seek assistance of a **MEGA** product engineer if necessary.*

Creating a Request For Change

To create a request for change:

1. Click the **Send RFC** button:
   - ***(MEGA Windows Front-End)*** at the top of the **Collaboration** navigation tree through  .
   - ***(MEGA Web Front-End)*** in the **Teamwork** desktop, **Collaboration** group.

     > ☛ *this desktop, see "Connecting directly to the Teamwork desktop", page 18*
2. In the dialog box that appears, enter the name of the request for change.



3. In the **Related Objects** frame, create or connect objects concerned by the RFC, then click **OK**.
4. In the next dialog box, enter a comment and click **Next**.

   > ☛ *The comment allows you to enter the content of your request and motivate it if necessary.*

   Creation of a request for change also triggers creation of a request for change workflow; this enables sending of a notification and e-mail concerning the request for change.
5. In the next dialog box, select the recipients of the request for change, then click **Finish**.

You can also create a request for change from an object.

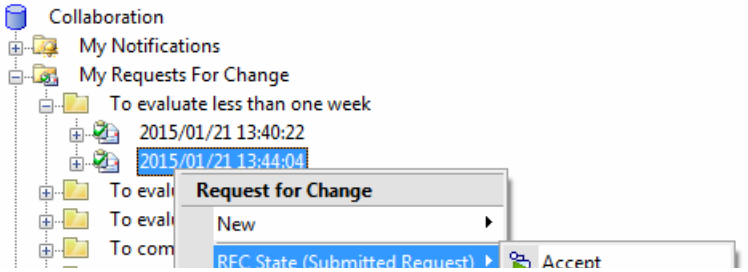
1. Right-click the object concerned and select **Manage > Send RFC**.
2. Enter the comment of the request for change and associate it with recipient users.
3. Click **Finish**.

Passing to the Next Request for Change Workflow Step

To intervene in the workflow, you must execute a workflow transition, the effect of which is to pass from one status to another.

To pass to the next request for change workflow step:

1. Select:
   - (***MEGA Windows Front-End***) the **Collaboration** navigation window and expand the **My Requests for Change** folder.
   - (***MEGA Web Front-End***) the **My Collaborative Tools** navigation pane and expand the **My Requests for Change** folder.
2. Right-click the request for change.
3. In the pop-up menu that appears, select **RFC State**, then the desired state.



☛ *This action executes a workflow transition.*

4. In the dialog box that appears, enter a comment for the triggered workflow transition, then click **Finish**.

Using Design Tasks

A design task enables assignment of execution of work to be done in the modeling repository. The design task assures traceability and check of work carried out by modelers by associating dispatched modifications with a motive.

> 🕮 *A motive is an object connected to a design task that justifies or explains why the design task has been created. The request for change is an example of task motive.*

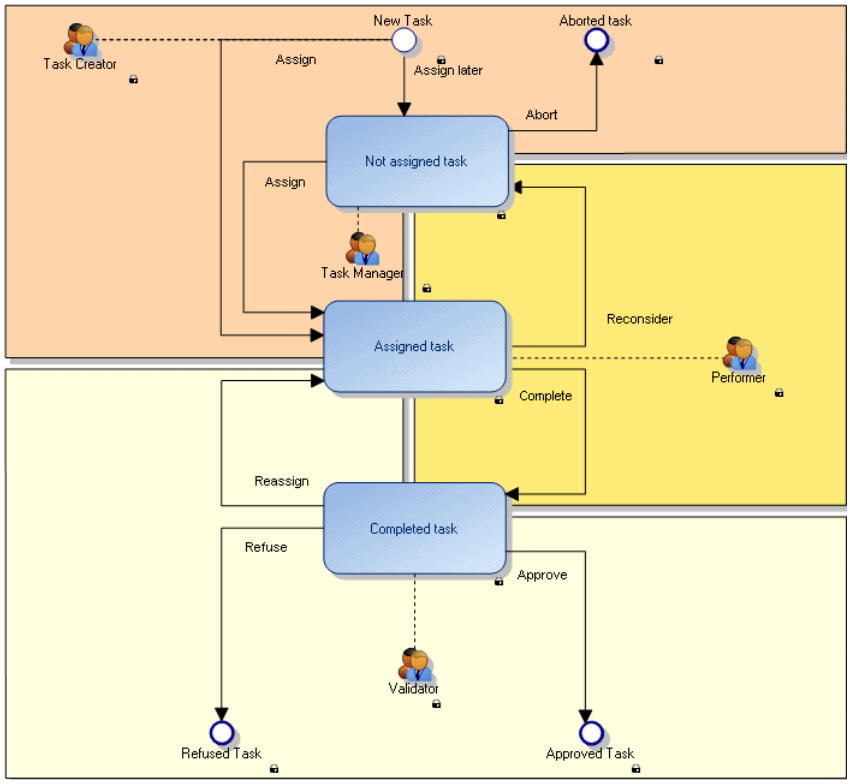
Management of design tasks integrated in **MEGA** improves control and analysis of repository modifications. In particular it offers:

- check of user dispatch rights (the user can be obliged to associate private workspace modifications with a design task).
- identification of modifications to be transferred from one repository to another.

> ☛ *For prerequisites of use of design tasks, see "Design Tasks", page 11.*

Design Task Workflow

MEGA delivers a design task management workflow as standard. This workflow enables management of the life cycles of the different assigned design tasks.



According to this standard workflow:

- A design task is created.
- It can be:
  - assigned to a user responsible for its execution (the executor): it passes from status ***New Task*** to status ***Assigned Task***.
  - assigned later
- The executor can:
  - complete the design task:: it passes to status ***Completed Task***
  - request its reassignment.

  The creator of the design task can reassign it to another user.
- A reviewer can decide to reassign a design task to another user.
  The design task then passes from status ***Completed Task*** to status ***Assigned Task***.
- A design task in ***Completed Task*** status can be:
  - approved: it passes to status ***Approved Task***.
  - refused: it passes to status ***Refused Task***.

> ☛ *You can customize behavior of design tasks. To do this, seek assistance of a **MEGA** product engineer if necessary.*

Accessing Design Tasks

HOPEX Collaboration Manager allows you to view:

- **tasks to complete**: these are tasks assigned to the current user
- **tasks to validate**: these are tasks that the current user must validate, or not
- **requested tasks**: these are all design tasks assigned to the current user

To view design tasks:

- ***(MEGA Windows Front-End***) In the **Collaboration** navigation window, select one of the task categories mentioned above.
- (***MEGA Web Front-End***) In the **Teamwork** sub-desktop of the enterprise architecture desktop, expand the **My collaborative Tools** navigation pane then **My Requests for Change**.

To view design tasks connected to a project:

- In the **Projects** navigation window, expand the Projects folder, then the sub-folder corresponding to the project concerned.
  The project sub-folder includes tasks connected to the project.

Creating Design Tasks

To create a design create:

1. In the following desktop:
   - ***MEGA Windows Front-End*** : click **Assign Task** at the top of the **Collaboration** navigation window through the  button.

     ☛ *this tree, select **View> Navigation Windows > Collaboration**.*
   - ***MEGA Web Front-End*** : click the **Teamwork** button, then the **Collaboration** group and click **Assign Task.**

   The dialog box for creating a design task appears.
2. Enter the name of the design task.
3. Indicate the task motive and due date, the project connected to the design task, then click **OK**.

   ☛ *A motive is an object connected to a design task that justifies or explains why the design task has been created. The request for change is an example of task motive.*
4. In the dialog box that appears, specify if you want to:
   - create the task and assign it
   - create the task and assign it later
5. In the next dialog box, enter a comment and click **Next**.
6. Select the user who must execute the task and click **Finish**.
   The design task is created and if specified, assigned to the selected user.

Specifying design task motive

Design tasks can be created from:

- a request for change

  A request for change enables expression of a comment concerning change to be made to an object.

- a requirement

  A requirement is a need or expectation explicitly expressed, imposed as a constraint to be met within the context of a project. This project can be a certification project or an organizational project or an information system project.

These two object types constitute the motive of a design task.

It can be useful, from a request for change, to create and assign a design task to the person responsible for its execution.

To create a design task from its motive (here, a request for change):

1. Expand the navigation folder corresponding to the request for changes.
2. Right-click the desired request for change and select **New > Design Task**.
3. In the dialog box that appears, enter the name of the design task and indicate the task due date.
4. Click **OK**.
5. In the dialog box that appears, specify if you want to:
   - create the task and assign it
   - create the task and assign it later
6. Enter a comment for the design task, then click **Next**.
7. Select the design task assigned user if required, then click **Finish**.

The design task is created.

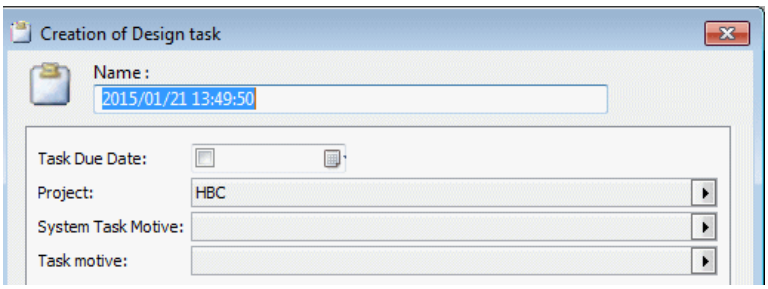
Creating a design task from a project

Design tasks can be created in the framework of a project.

We can define users with authorization to create tasks in the framework of a project. For more details, see "Workflow Participants", page 45 and "Associating persons with participants", page 46.

To create a design task from a project:

1. In the **Projects** navigation window, right-click a project and select **New > Design Task**.
2. In the dialog box that appears, enter the name of the design task.



3. Enter the design task motive and due date if required.

4. Click **OK**.
5. In the wizard that appears, indicate if you want to assign the design task or not to a person responsible for its execution.
6. Enter a comment and click **Next**.
   The design task is created and connected to the project.
   A design task workflow instance is triggered.

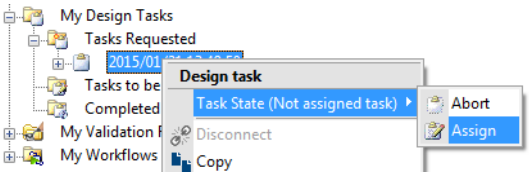
Assigning and Aborting a Design Task

Assigning a design task later

When you created the design task, you were able to create it without immediately assigning it.

To assign a design task after creation:

- In the list of requested tasks, right-click the unassigned task and select **Assign**.



Discarding a design task

If a design task has been created but not immediately assigned, it can be aborted.

To abort an unassigned task:

- In the list of requested tasks, right-click the unassigned task and select **Abort**.

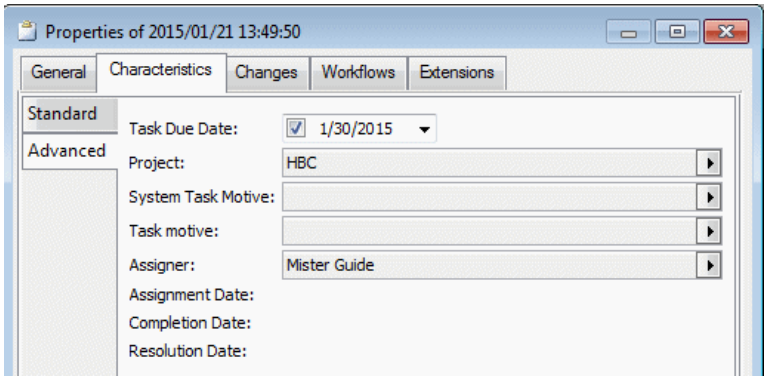
Consulting Design Task Properties

To consult design task properties:

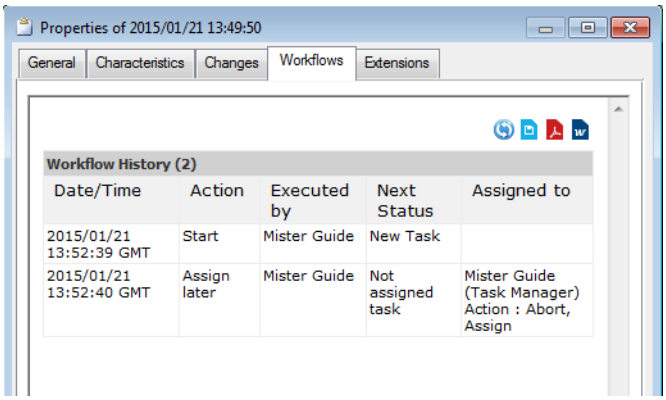
- Right-click a design task and select **Properties**.

The **Characteristics** tab allows you to view:

- in the **Standard** subtab: the design task assigned user.
- in the **Advanced** subtab:
  - the assigner
  - the project with which the design task is associated
  - the design task motive (requirement or request for change)
  - the assignment date
  - the completion date (date on which task is completed)
  - the resolution date (date on which task is validated)
  - the design task due date



The **Workflows** tab lets you consult the history of triggered workflow transitions:



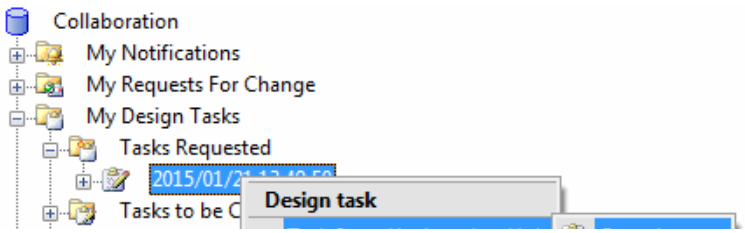
Passing to the Next Design Task Workflow Step

To intervene in the design task workflow, you must execute a workflow transition, which enables passage to the next workflow status.

To pass to the next design task workflow step:

1. Right-click the design task.

2. In the pop-up menu that appears, select **Task State**, then the desired task.



☛ *This action executes a workflow transition.*

3. In the dialog box that appears, enter a comment for the triggered workflow transition, then click **Finish**.

☛ *You can also trigger the workflow transition from the design task properties dialog box.*

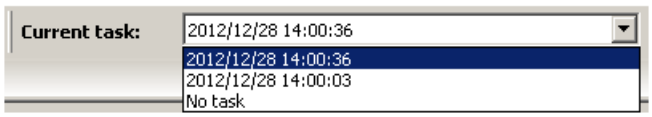
☛ *To view the different possibilities of action on a design task, see "Using Design Tasks", page 28.*

Selecting a Design Task

From the start of a private workspace, you can also select the design task with which modifications to the current private workspace will be associated.

To select the design task associated to the current private workspace:

- In the **MEGA** desktop, select the desired task in the **Current Task** drop-down list.



Dispatching as a Design Task

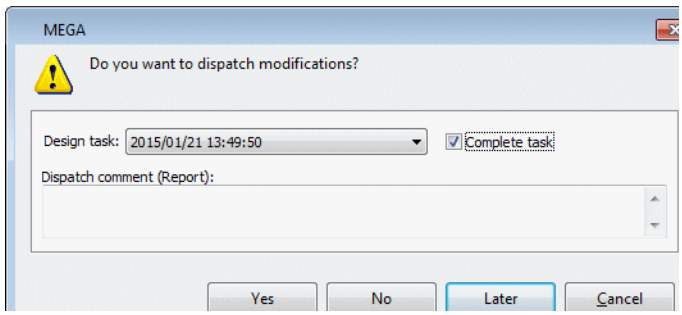
A user can dispatch work in a private workspace as an assigned design task if the task management function is activated.

When dispatching work in the private workspace as a task, the user associates all dispatched modifications with the assigned task.

To dispatch work in a private workspace as a design task:

1. In the following desktop:
   - **MEGA Windows Front-End**, select **File > Dispatch**.
   - **MEGA Web Front-End**, **Repository** group, select **Dispatch > Dispatch**.

2. In the dialog box that appears, select the required design task if you have not already done so.



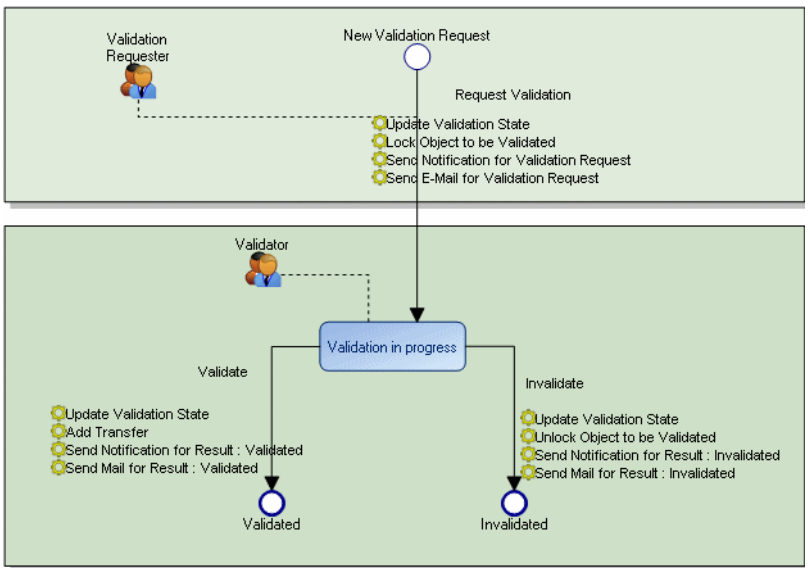
3. If this dispatch contains all the modifications necessary for resolution of the design task, select the **Complete Task** check box.

   ☛ *You can dispatch work from several private workspaces as the same design task. However, you cannot group several design tasks in the same private workspace.*

4. Select **Yes**.

Using the Validation Request Workflow

The diagram that illustrates this validation request workflow is shown below.



In this workflow, a requester makes a request for validation. The request then passes to status ***Validation in Progress***.

A reviewer analyzes the request for validation. He can:

- validation
- invalidate

> ☛ *This workflow proposes simple implementation of validation requests. You must configure it so that it responds to the requirements of your enterprise.*
>
> ☛ *When validated, the object can be transferred to another repository if required. For more details, see "Transfering Objects", page 96.*

Requesting validation

To request validation of an object:

1. Right-click the object of interest and select **Validate > Request Validation**.
2. In the dialog box that appears, enter a comment to accompany your request and click **Next**.
3. Select a person to be assigned if your workflow requires this and click **Finish**.

The object subject of a request fro change can no longer be modified. A padlock appears alongside the object.

> ☛ *If you are in metamodel expert mode in **MEGA Windows Front-End**, the **Immutability** value of the object to validate properties dialog box, **General** sub-tab, is "Protected".*

Validating the object

To validate the object subject of a request for change:

1. Right-click the object and select **Validate (Validation in Progress) > Validate**.
2. In the dialog box that appears, enter a comment if required and click **Finish**.

> ☛ *You can also associate a transfer at this stage. For more details, see "Transfering Objects", page 96.*

The object is protected. If you want to modify it, you must first unlock it.

> ☛ *Right-click the object and select **Manage > Unlock Object**. If you do not have the necessary rights to unlock the object, you can request unlocking. For more details, see "Making an unlocking request", page 37.*

Refusing object validation

To refuse validation of the object subject of a validation request:

1. Right-click the object and select **Validate > Invalidate**.
2. In the dialog box that appears, enter a comment if required and click **Finish**.

Using the Unlocking Request Workflow

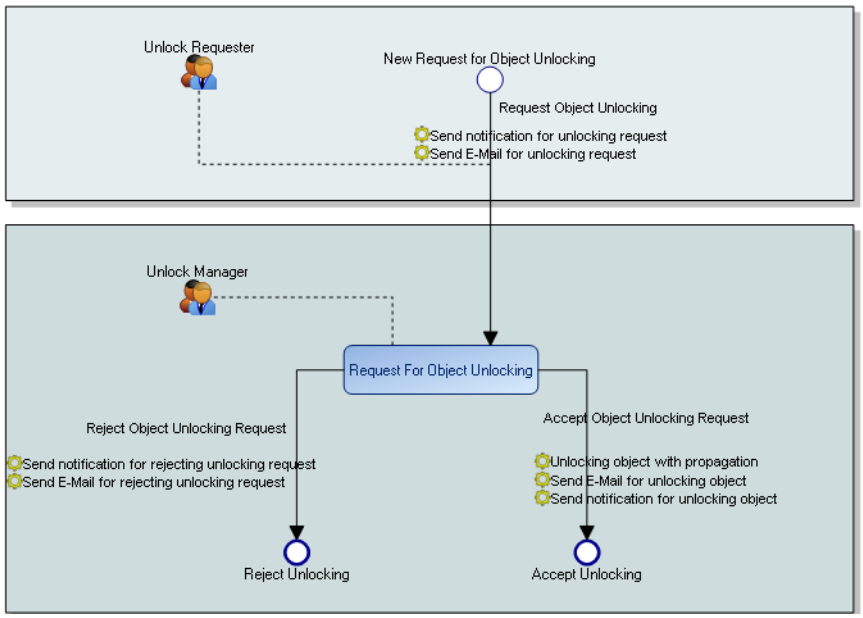
When an object becomes the subject of a request for change, the object is locked. It can no longer be modified.

> ☛ *For more details on the validation process, see "Using the Validation Request Workflow", page 35.*

After validation of the object, if you want to modify the object you must unlock it.

> ☛ *If you do not have the necessary rights to do this, you must make an unlocking request.*

The diagram that illustrates this workflow is shown below.



Making an unlocking request

To be able to modify the object after its validation, and if you do not have rights to unlock the object, you must make an unlocking request.

To make an unlocking request:

1. Right-click the validated object to be modified and select **Manage > Unlocking Request**.
2. In the next dialog box, enter a comment and click **Next**.
3. Select a person to be assigned if your workflow requires this and click **Finish**.
   A notification is sent to the person responsible for object unlocking.

Consulting unlocking requests

To consult unlocking requests addressed to you:

1. In the following desktop:
   - **MEGA Windows Front-End,** select the **Repository Activity** navigation window.
   - **MEGA Web Front-End**, click the **Teamwork** button and in the dedicated desktop, expand **My Collaborative Tools**.
2. Expand the **My Unlocking Requests** folder.
   The unlocking requests that have been addressed to you appear in the "To Evaluate" sub-folder.

Accepting an unlocking request

To accept an unlocking request:

- Right-click the unlocking request and select **(Object Unlocking Request) > Accept Unlocking Request**.
  The object for which you have accepted the request is no longer protected. It is unlocked and you can modify it.

  ☛ *The validation state of the object has become "Not validated".*

Refusing an unlocking request

To refuse an unlocking request:

- Right-click the unlocking request and select **(Object Unlocking Request) > Refuse Unlocking Request**.
  The object remains protected. It cannot be modified.

  ☛ *To be able to accept or refuse unlocking requests, you must be authorized to unlock protected objects (see repository option **Authorize unlocking of protected objects** in **Tools > Options**).*

CONFIGURING WORKFLOWS

MEGA proposes different workflows as standard, which you can customize to suit your requirements using **HOPEX Studio**.

You can create a workflow and completely configure it, notably using implementation macros. These macros are used on all object types making up a workflow definition diagram.

Sending e-mails and notifications can also be customized.

You can configure workflows from **MEGA Windows Front-End**.

☛ *You must have MEGA APIs to be able to implement macros. See the HOPEX Studio - All about starting with APIs guide for more information on using **MEGA** APIs.*

DEFINING A WORKFLOW

To create a workflow, you must create a workflow definition and its associated diagram.

The different objects in the workflow definition diagram and their configuration are presented here.

For more details on workflow configuration, see:

- "Workflow Advanced Configuration", page 62
- "Managing E-mails and Notifications", page 66

Creating a Workflow Definition

A workflow definition enables definition of a sequence flow of operations executed by persons. When executed, the workflow assures management of the sequence of operations and notification of the persons involved. The workflow can be applied to a repository object known as the workflow subject. In this case, expected operations are related to this object.

To create a workflow definition:

1. In the **Utilities** navigation window, right-click the **Workflow Definition** folder and select **New > Workflow Definition**.

2. In the dialog box that appears, enter the name of the workflow definition and click **OK**.

The new workflow definition is created.

A workflow must relate to an object type. You can therefore associate an object type with the workflow definition you have just created.

To define the object type to which the workflow relates:

1. In the properties dialog box of the workflow definition, select the **Characteristics** tab.
2. In the **Subject MetaClass** section, click the **Connect** button.
3. In the **Select Query** dialog box, select "Workflow Subject MetaClasses" and click **OK**.
4. Select a MetaClass and click **OK**.

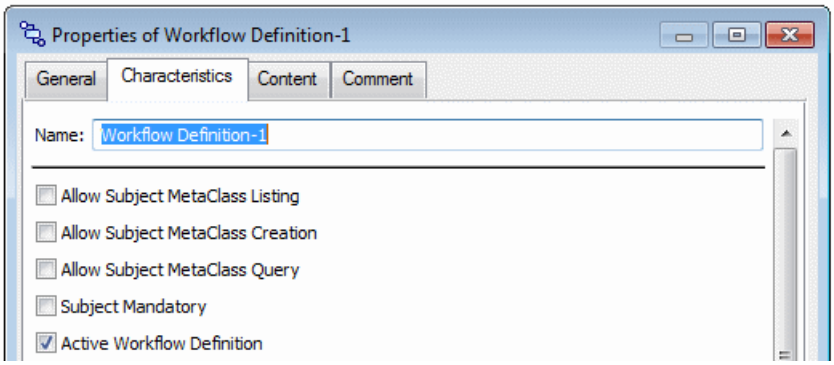
The connected MetaClass must be a sub-class of the "Workflow Subject" or "System Workflow Subject" abstract MetaClass.

A subject MetaClass is a MetaClass to which a workflow definition can be applied. Workflows defined by this workflow definition can be executed on instances of this MetaClass.

Several options are available in this dialog box:

- **Allow Subject MetaClass Creation**: allows the user to create the object to which the workflow relates at the moment the workflow is started.
- **Allow Subject MetaClass Listing**: allows the user to list workflow subjects available at the moment the workflow is started.
- **Allow Subject MetaClass Query**: allows the user to start the query tool to select a workflow subject at the moment workflow is started.
- **Subject Mandatory**: obliges the user when executing the workflow to select the object to which the workflow relates.
- **Activate Workflow** : enables workflow activation or deactivation. Users should not access workflows which are in course of definition. For this reason, it is useful to be able to deactivate a workflow.

  ☛ *If the workflow is deactivated, it can no longer be started. The **Start Workflow** menu of the workflow definition is grayed.*

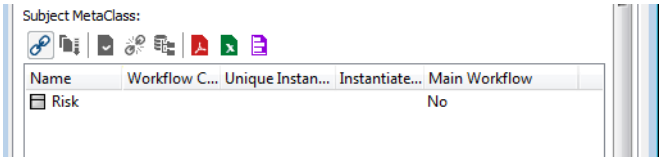


For each subject MetaClass you can specify:

- **Workflow Condition**: a condition enables filtering of workflows that can be instanced from a subject MetaClass.

  It is for example possible to start a workflow on an object type that has a particular characteristic.

  ☛ *A condition can be used on workflows instanced at creation of the subject when several workflow definitions exist for a MetaClass.*
- **Unique Instancing**: enables indication that for a subject instance you can have only a single workflow instance in progress.
- **Instance at Creation**: enables creation of a workflow instance at workflow creation that manages the life cycle of the object.
- **Main Workflow**: enables specification, for a given subject MetaClass, that this workflow gives or does not give the main current status (several workflow definitions being defined for the same MetaClass).



To be able to specify the workflow, you must then create the workflow definition diagram.

Viewing workflow definition contents

You can view content of a workflow definition via the **Utilities** navigation window.

the **Utilities** navigation window.

1. In the workspace, select **View > Navigation Windows > Utilities**.
2. Expand the Workflow Definitions folder.

For each workflow definition, contained elements are displayed in sub-folders:

- workflow statuses
  see "Workflow Statuses", page 45.
- workflow transitions
  see "Workflow Transitions", page 48.
- workflow participants
  see "Workflow Participants", page 45.
- workflow actions
  see "Workflow Actions", page 60.

Creating a workflow definition diagram

To create a workflow definition diagram:

1. Right-click the workflow definition and select **New > Diagram**.
2. In the dialog box that opens, select **Create**.

The diagram is created.

In a workflow definition diagram, you must:

- create a workflow status of **Initial** type.
- create the different workflow statuses and connect these by means of workflow transitions.
- create the last workflow status or statuses of **Final** type.
- specify persons that trigger transitions: to do this you connect workflow participants to the different transitions.
  Persons must be associated with workflow participants.

Workflow Statuses

To create a workflow status:

1. In the workflow definition diagram, click one of the three workflow status buttons in the diagram insert toolbar to create a workflow status:
   - **Default**
   - **Initial**
   - **Final**

   📖 *A workflow status corresponds to a step in progress of a workflow defined by a workflow definition.*
2. Click on the diagram.
3. In the dialog box that opens, enter the name of the workflow status and click **OK**.

The new workflow status appears in the diagram.

Workflow Participants

Creating workflow participants enables definition of the persons associated with a workflow transition.

📖 *A workflow participant enables definition of the set of persons that can be assigned to a workflow transition in the framework of execution of a workflow instance.*

📖 *A workflow transition connects a source workflow status to a target workflow status. A person associated with a workflow transition for a given workflow status can trigger the workflow transition, passing the workflow instance from the current source workflow status to the target workflow status, which then becomes the current status. By this action, the person informs that the operation expected of them has been executed.*

This set of persons can be defined at workflow configuration or calculated at workflow execution.

You can create a workflow participant:

- directly in the workflow definition diagram.

  ☛ *For more details, see "Creating a participant in a workflow definition diagram", page 46.*

- in the properties of the workflow transition.

  ☛ *For more details on workflow definitions, see "Workflow Transitions", page 48.*

- in the properties of the workflow status.

  ☛ *For more details on workflow statuses, see "Creating a participant from a workflow status", page 46.*

Creating a participant in a workflow definition diagram

To create a workflow participant:

1. In the workflow definition diagram, click the **Workflow Participant** button in the diagram insert toolbar, then click in the diagram.
2. In the dialog box that opens, enter the participant name and click **Finish**.

The workflow participant appears in the diagram.

Creating a participant from a workflow status

Specifying participants on the workflow status enables:

- factorization and avoiding specification of participants on each output transition of the same workflow status.
- on an initial workflow status, indication of who has the right to start the workflow

Associating persons with participants

When the participant has been created, you can connect it to persons. The persons associated with a participant can trigger transitions between two workflow statuses.

To connect persons to a workflow participant:

❱ In the properties page for the workflow participate, specify an implementation macro.

☛ *An implementation macro on a workflow participant enables calculation of a set of persons at workflow execution.*

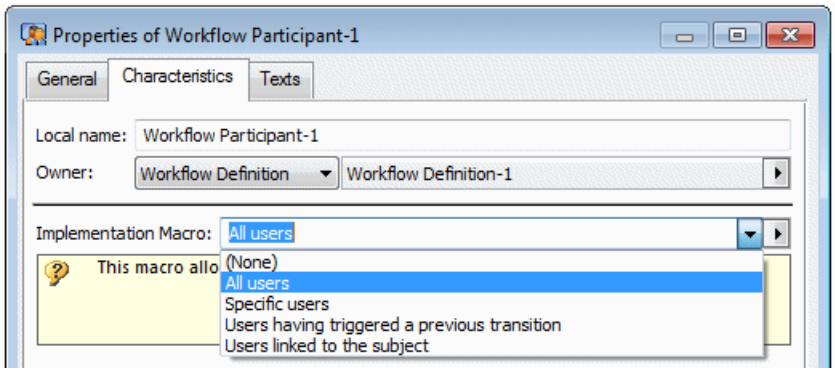
When creating a macro, a wizard will help you initialize its content. Macro content is initialized with the list of parameters that can be used to determine the list of persons.

HOPEX Collaboration Manager supplies different macros enabling definition of the set of persons likely to trigger workflow transitions.

To use a macro in the framework of a participant:

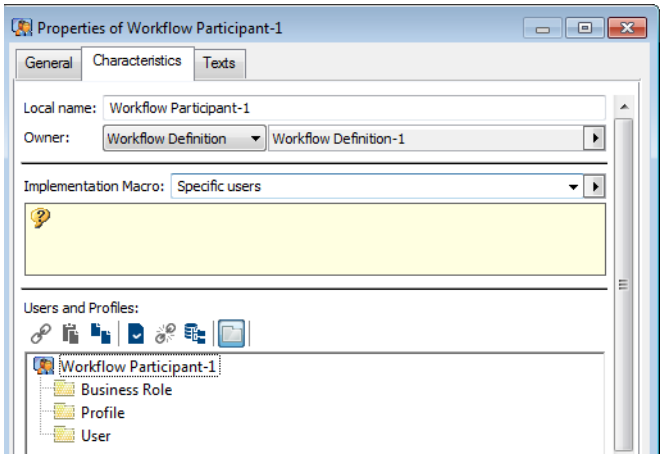
1. In the properties dialog box of the participant, select a macro from the drop-down list.

2. Click **Apply**.



A new dialog box appears, depending on the selected macro.

- **All users**: all persons are selected.
- **Specific users**: this macro enables explicit specification of a list of persons. You can connect roles, persons or profiles.



- **Users linked to the subject**: this macro enables listing of users via a query applied to the workflow subject.

  ```
  If the workflow subject is a design task, you can define a query that will find project managers of the project associated with the design task.
  ```

The query must be specified in the _Parameterization text, under section [UsersSet], as in the example below:

```
[UsersSet]

QueryFromSubject = ~llC2RbmyELaC[Action Plan Approvers]
```

- **Users having triggered a previous transition**: this macro enables specification of person(s) who triggered the previous transition.

The previous transition must be specified in the _Parameterization text, under section [UsersSet], as in the example below:

```
[UsersSet]
ProvidingTransition = ~n1uG9GqiBD60[Approve]
```

Workflow Transitions

Creating a workflow transition

To create a workflow transition:

1. In the workflow definition diagram, click the **Workflow Transition** button in the diagram insert toolbar, then draw a link between the two workflow statuses concerned.
2. In the dialog box that appears, enter the name of the transition and click **OK**.
   The transition appears in the diagram.
   You must now define certain properties.

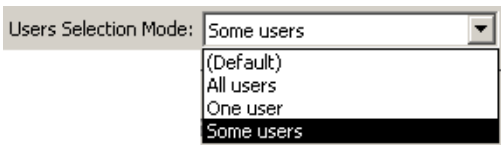
> *A workflow transition connects a source workflow status to a target workflow status. A person associated with a workflow transition for a given workflow status can trigger the workflow transition, passing the workflow instance from the current source workflow status to the target workflow status, which then becomes the current status. By this action, the person informs that the operation expected of them has been executed.*

Person selection mode

> *Participants can also be specified on the workflow status, in the **Participation** tab.*

The **Participants** tab of a workflow transition enables definition of how persons are selected at assignment of persons to the next workflow status.

Several values are proposed in the **User Selection Mode** field when configuring the workflow:



- **Some Users**: one or more persons can be selected in a list. This is a list of users authorized to trigger the next workflow transition.
- **All Users**: all the users associated with the corresponding workflow participant are assigned to the next status. No list is proposed.
- **One Person**: only one person can be selected in the list and assigned to the next status (if you select several persons in the list, you cannot trigger the workflow transition).

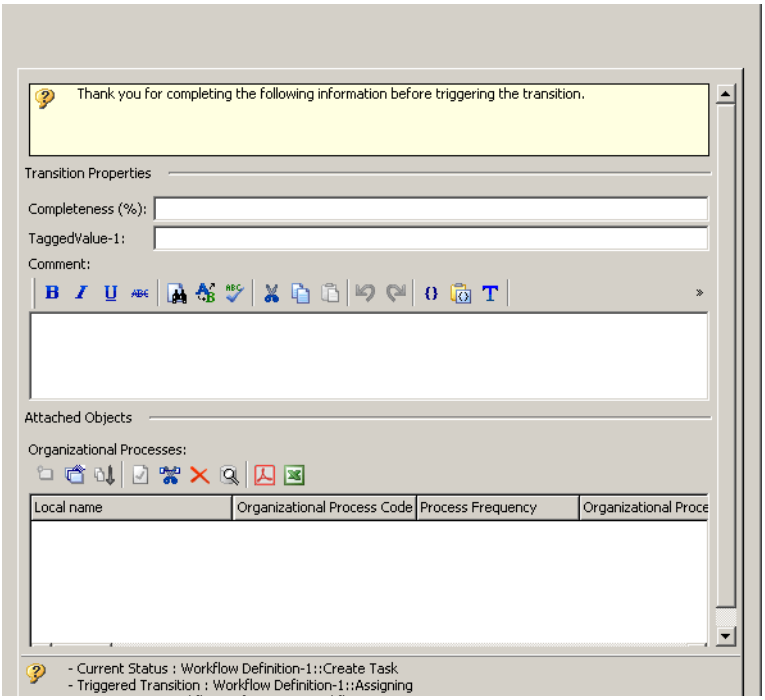
Information associated with workflow transition

You can allow the user who triggers the workflow transition to specify additional information.

You can allow the user to:

- add a comment
- specify one or several properties in the form of fields
- attach objects

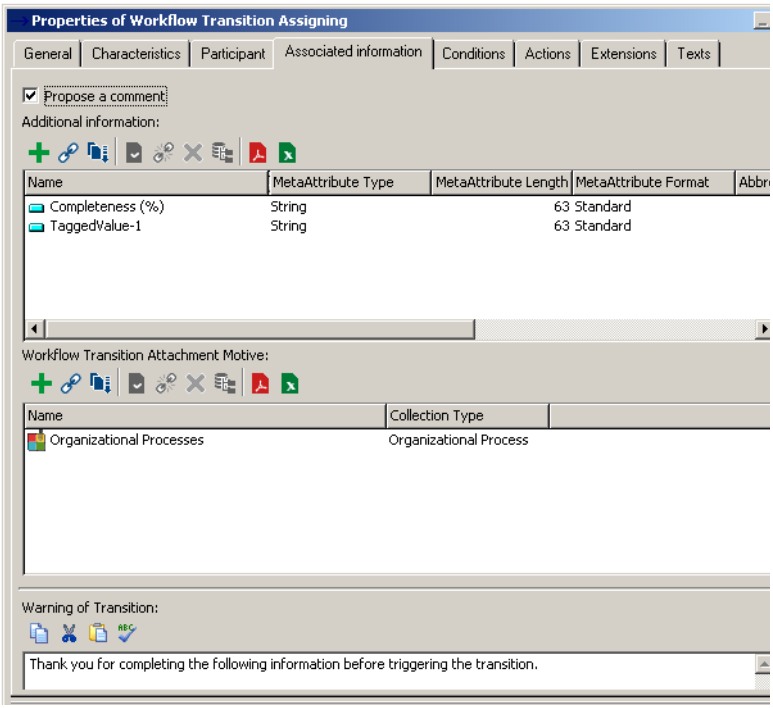
> ☛ *This information can be made mandatory via permissions. For more details on configuration of permissions, see "Configuring Permissions on Objects", page 84.*



Example of information that can be added on a transition

To enable entry of additional information on workflow transitions:

- In the properties dialog box of the workflow transition, select the **Associated Information** tab.



Example of configurations on a transition

Enabling comment entry

To offer the user the possibility of entering a comment when triggering a workflow transition:

- Select the **Propose a Comment** check box.

Adding properties on transitions

To offer the possibility of specifying properties when triggering a workflow transition:

- Create TaggedValues in the **Additional Information** frame.
  At triggering of the corresponding workflow transition, the dialog box proposed to the user will display the TaggedValues value specified here.

Opening a help tooltip in the transition dialog box

You can display a help tooltip to guide your users at triggering of the workflow transition.

To enter the text to appear in the help tooltip:

1. Enter the text to be presented to users in the **Warning of Transition** frame.

Transition attachments

To offer the user the possibility of attaching **MEGA** objects at workflow transition triggering:

1. Create a motive in the **Workflow Transition Attachment Motive** frame, for example "Items to provide".

   ☛ *An object attachment motive specifies the reason for which the objects are used in the framework of a workflow transition.*

2. Select the motive, and in its properties dialog box select a collection type, which corresponds to a MetaClass.

   ☛ *The same MetaClass can appear in several motives.*

Motives are used particularly:

- in the framework of sending e-mails
  - to list attachments
  - to include objects in the form of attachments in the case of documents

    ☛ *MetaClasses that can be the subject of attachments in e-mails are: documents, reports, books, external references.*
- to associate objects with a notification

  ☛ *For more details on configuration of notifications or e-mails, see:*

  - *"Managing objects in notifications", page 68.*
  - *"Managing attachments in e-mails", page 68*

When the user triggers a transition, a dialog box proposes connection of objects to be attached.

Multiple triggering transitions

Reminder of general case concerning workflow transitions

When a transition has been triggered by a user, the workflow instance passes to the next status.

By default, no other user can now trigger this transition.

Multiple triggering

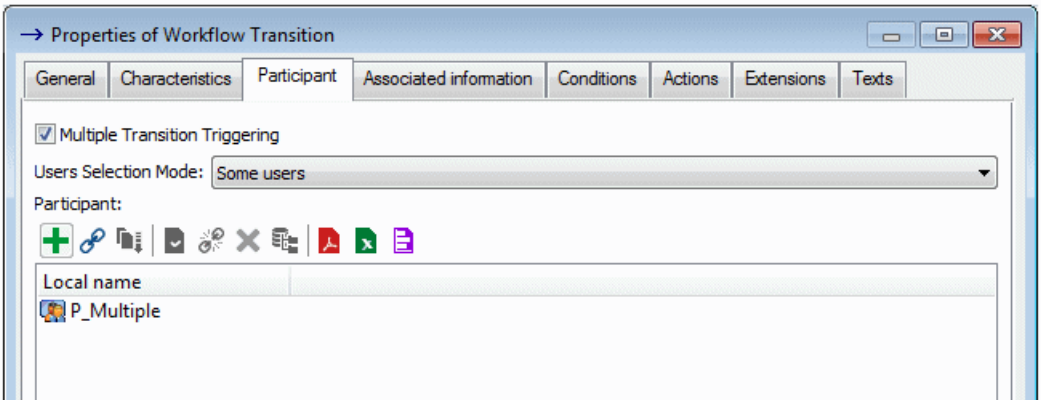
When the multiple triggering option is activated for a transition, several users can trigger the transition.

When a user triggers multiple triggering, the workflow instance passes to the next status. Workflow status properties enable identification of:

- users who have triggered the transition
- users who have not yet triggered

To activate the multiple triggering option:

1. In the workflow transition properties dialog box, select the **Participant** tab.
2. Select the **Multiple Participation** option.



☛ *The multiple transition should not be connected to initial or to final status.*

Await user intervention

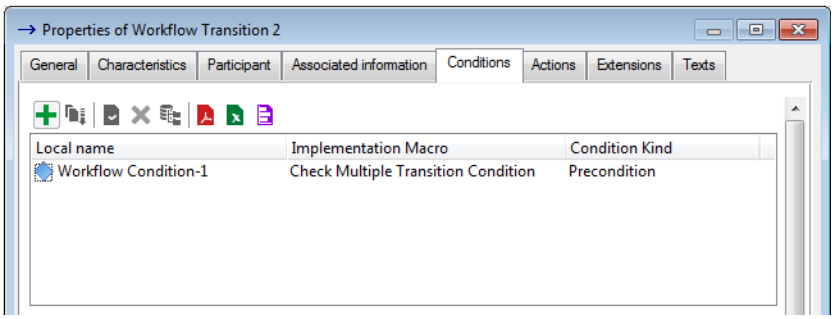
You can arrange that intervention of users of a multiple transition is mandatory for the workflow to continue and pass to the next status.

To do this:

1. On the workflow transition that follows the multiple transition, implement the macro "Check Multiple Transition Condition".

   ☛ *You can duplicate and customize this macro to indicate for example that at least 50% of users must have intervened to be able to pass to the next workflow status.*

2. Modify the value by default for the **Condition Kind** and specify that it is a "Precondition".

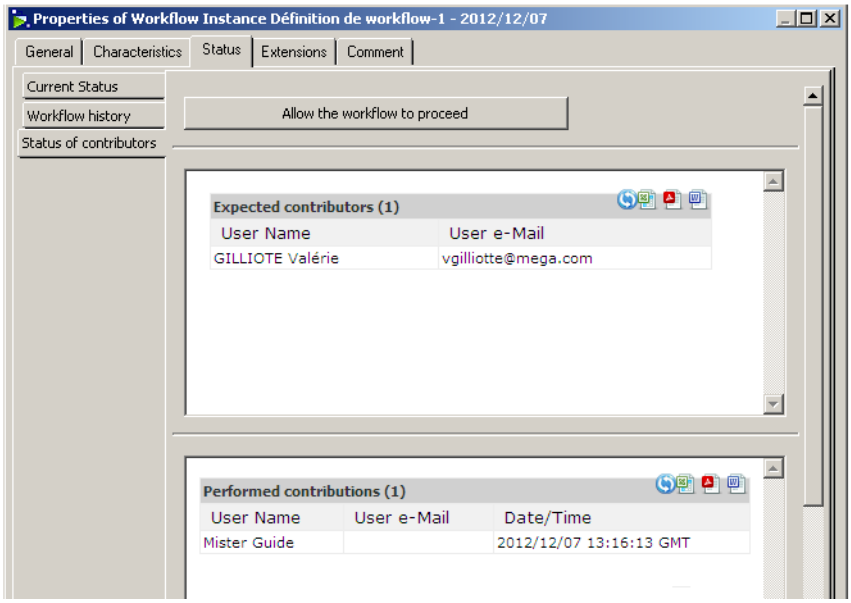


With implementation of this macro, and if all users have not yet intervened, the **Next Status** command of the workflow definition pop-up menu is grayed for the user authorized to trigger the next workflow.

Viewing users contributing a workflow

To view contributors awaited in the workflow who have not yet triggered a transition:

- In the properties dialog box of the workflow instance, select the **Status** tab and the **Status of Contributors** subtab.



You can view in this subtab:

- users who have already participated in the workflow (**Performed Contributions** frame)
- users whose contribution is awaited preventing workflow progress (**Expected Contributors** frame)

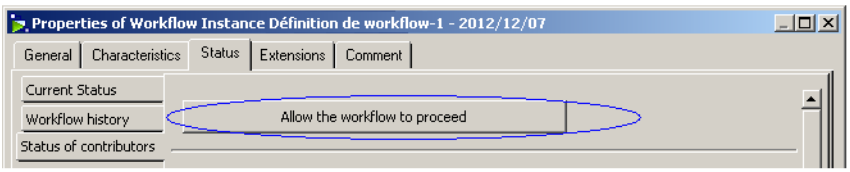
Progressing the workflow

HOPEX Collaboration Manager allows the user to bypass the "Check Multiple Transition Condition" macro and authorizes progress without awaiting intervention of other users.

To continue the workflow despite the fact that some users have not yet triggered a transition:

1. In the properties dialog box of the workflow instance, select the **Status** tab.

2. In the **Status of Contributors** subtab, click the **Allow the workflow to proceed** button.



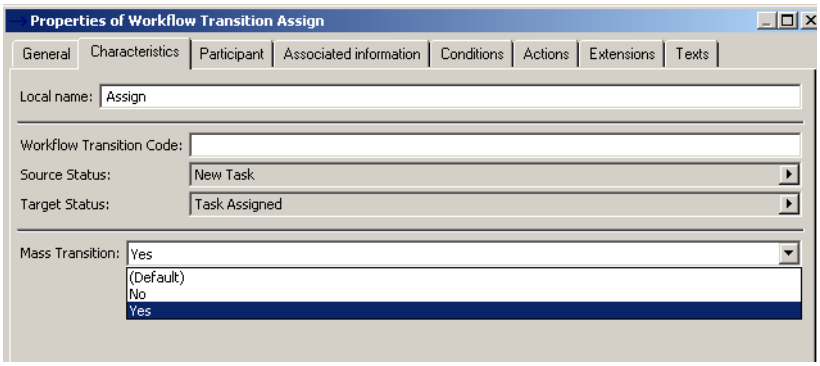
The **Next Status** command of the workflow instance is no longer grayed. The workflow can continue. Other contributors no longer intervene in the workflow.

Mass transitions

You may need to trigger several transitions simultaneously, that is to pass several workflow instances from one status to another.

To be able to authorize transition mass triggering:

- In the properties dialog box of a workflow transition, select the value "Yes" in the **Mass Transition** field.



When the workflow is instanced, you can trigger mass transition from:

- subject objects
- workflow instances

To trigger a transition simultaneously on several workflow subjects in the same current status:

- Right-click the subject objects, for example in a navigation tree, and select command **Mass Transition**.

  ☛ *The instances must be in the same workflow status to enable a mass transition.*

Implementing scheduled transitions

Workflow transitions can be triggered on a given date without user intervention.

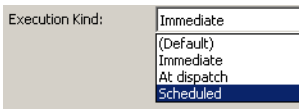
```
Example: a workflow transition can be triggered if the
workflow remains in the same status for more than ten days.
```

The triggering date can be relative to a reference date, for example the triggering date of a workflow transition or instancing of a workflow.

```
Example: a reminder is sent one week after passage to a
particular workflow status.
```

To define a transition with relative triggering date:

1. In the dialog box of creation of an action, select "Scheduled" execution kind.



> ☛ *To be able to use the scheduled triggering functionality, you must use the **HOPEX Collaboration Manager**option.*

2. Click **Next**.
3. In the **Reference Date** field, two macros are proposed:
   - "Reference date from Subject property"

   Macro configuration text can be specified as follows:

   ```
   [SchedulingDate]
   MetaAttribute = [Planned End Date]
   ```

   > ☛ *Configuration data entry help is available. To do this, enter the character "[" then simultaneously press keys Ctrl + Space.*

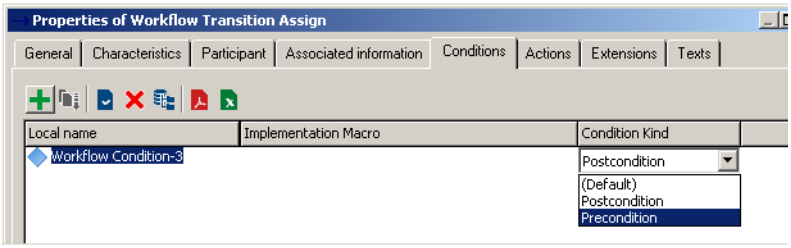
   - "Reference date is transition triggering"

   > ☛ *This macro does not require additional configuration, since it takes the transition triggering date as reference date.*
4. In the **Start** section, specify recurrence conditions and hourly planning.

Conditioning a transition

To condition a workflow transition:

1. In the properties dialog box of a workflow transition, select the **Conditions** tab.
2. Create a condition and select a **Macro**.
3. In the **Condition Kind** field, specify if it is a:
   - **Precondition**
   - **Post-condition**



Precondition

The pre-condition first checks that pre-conditions are met for the transition to be proposed.

If conditions are not met, the menu corresponding to the transition is not proposed to the user.

☛ *Specifying a condition on the first workflow transition of a workflow definition is equivalent to defining a condition on the subject. For more details, see "Creating a Workflow Definition", page 42 (paragraph concerning workflow conditions).*

Post-condition

Possible transition choices are presented to the user.

if required conditions are not met, a message warns that the transition will not be executed.

☛ *In batch mode, conditions are systematically assessed.*

Configuring the workflow transition triggering menu

Workflow subject objects can propose a pop-up menu enabling workflow transition triggering.

☛ *The "Design Task" MetaClass for example has this configuration as standard.*

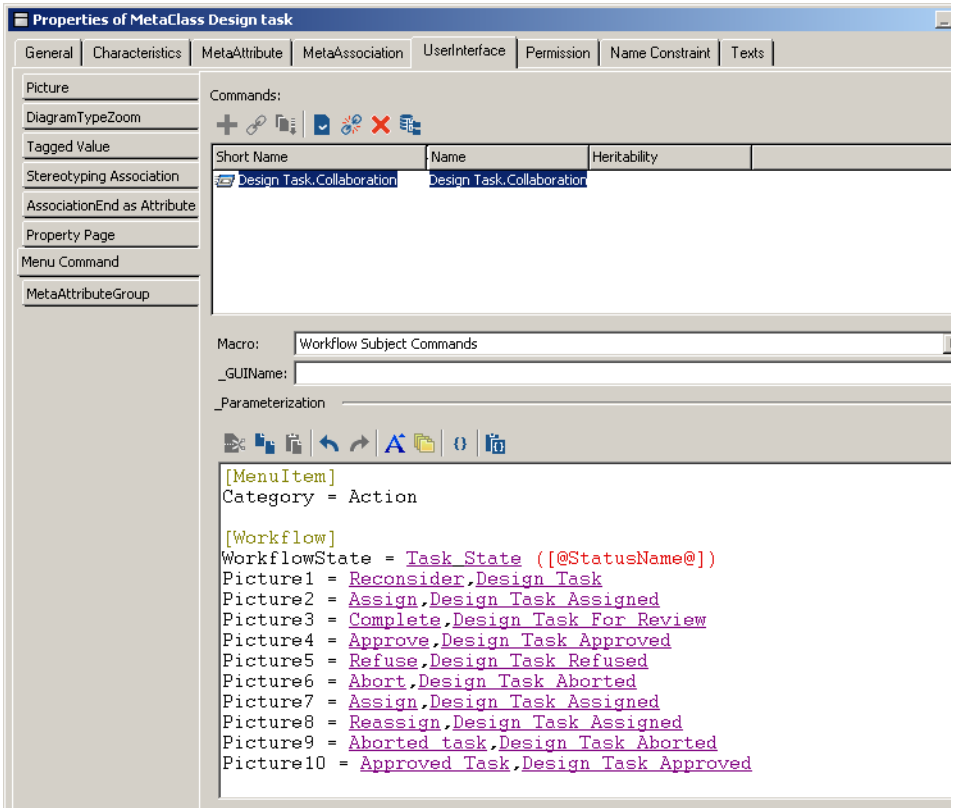
This pop-up menu comprises a set of menus:

- a menu displaying the state of the object
- several sub-menus presenting the list of workflow transitions that the user can trigger

To create a menu enabling triggering of a transition on an object:

1. In the properties dialog box of the MetaClass concerned, select the **User Interface** tab, **Menu Commands** subtab.
2. Create a **Command** and click its name.
3. In the **Macro** field, associate the "Workflow Subject Command" macro.

4. Configure menu display in the **_Parameterization** section.



☛ *Detailed help is available at the bottom of the properties dialog box after clicking in the configuration area.*

Naming the menu

The "WorkflowState" key enables menu naming. It can be defined via:

- code templates
- tags [@StatusName@] and [@WorkflowName@].

This configuration enables structuring of all menus in the same way.

```
WorkflowState = ~8bjDw1bEFTtR[Task State] ([@StatusName@])
```

Naming the menu for a given workflow definition

The key "WorkflowState%n" enables naming of a menu for a given workflow definition. You must specify the workflow definition.

```
WorkflowState1 = ~9nWjkOxmE95G[Action Plan Workflow],
[@StatusName@]
```

Associating an image with a workflow transition

To associate an image with a workflow transition:

- With the key "Picture%n", specify a workflow transition and an image.

```
Picture1 = ~X0O81(okB5S2[Reconsider],~Zimg8ZhWBrn0[Design
Task]
Picture2 = ~R3O827okB550[Assign],~(f3u5nUnBvH1[Design Task
Assigned]
```

Hiding the menu of a workflow definition

The key "FilterMode" enables hiding of the menu of a workflow definition. Two values are possible:

- "All"
  The value "All" is default behavior. All workflow menus are presented.
- "List"
  The value "List" enables display of only those menus associated with the workflow definitions you want to propose. Only those menus for which the key " WorkflowState%n " was specified are presented.

The configuration below enables proposal of only the menu for the "Action Plan Workflow" workflow definition. No menus are proposed for other possible workflows.

```
WorkflowState1 = ~9nWjkOxmE95G[Action Plan Workflow],
[@StatusName@]
FilterMode = List
```

Hiding the state of the object

The first level in the menu concerns the state of the object. You can choose to hide it and display only the workflow transitions.

Managing transitions at reassignment

When a transition is triggered, the responsible of the next transition is calculated.

If assignment of a person is modified, it may be necessary to re-trigger the previous workflow transition to update the next transition responsible.

Two cases can arise:

- case of back transitions
- case of loop transitions

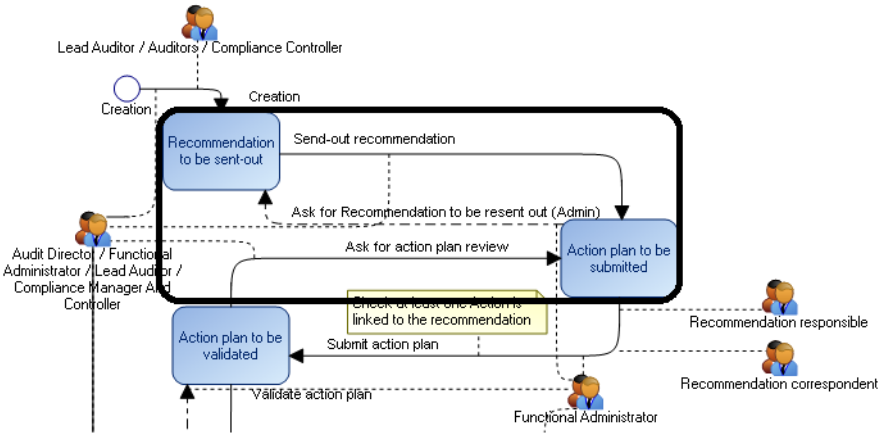
> ☛ *In workflows supplied as standard, back and loop transitions are not used in normal workflow processing. They are reserved for the administrator to process exceptional cases.*

Back transition

When assignment modification infrequent, it may be sufficient to use back transitions.

In the example below on the Recommendation workflow, if the recommendation is in status "Action Plan to be submitted" and the recommendation owner changes, the administrator can:

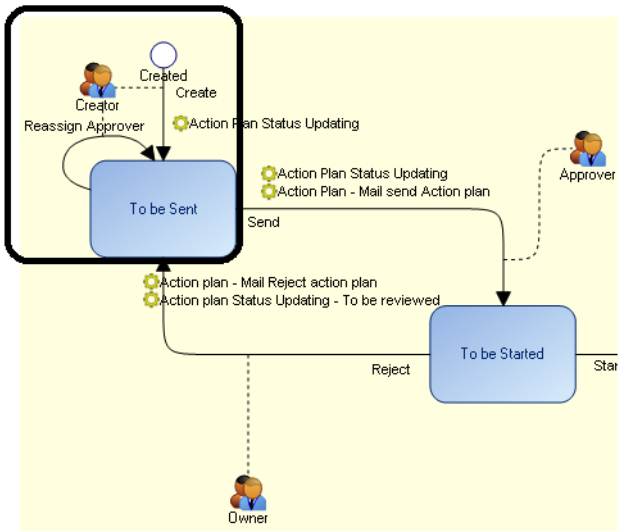
- execute the "Ask for recommendation to be resent (Admin)" transition, and
- re-execute the "Send out recommendation" transition to update the recommendation responsible of the next transition



Loop transition

When person assignment changes are frequent, you can add a loop workflow transition on the status of the workflow concerned.

For example, in the "Top-Down Action Plan" workflow, a loop transition has been added on the "To be sent" state. In this way the action plan creator can easily reassign the action plan approver.



Workflow Actions

A workflow action enables association of a processing execution with triggering of a workflow transition (processing execution can be postponed until dispatch or a later scheduled date).

You can create a workflow action:

- on a workflow transition
- on a workflow status

Configuring a workflow action on a workflow status

It can be useful to specify a workflow action on a workflow status:

- to trigger a scheduled transition

  `Example: an action is triggered 10 days after the arrival of a workflow transition in the status`

  ☛ *For more details, see "Implementing scheduled transitions", page 54.*

- to factorize and avoid avoid specifying the same action on various workflow transitions

  ☛ *When a transition is triggered, it is the action specified on the target (and not source) status that is implemented.*

Creating a workflow action

Execution of a workflow action is by implementation of a macro. The macros proposed as standard enable execution of different types of action.

To create a workflow action:

1. In the workflow definition diagram, click the **Workflow Action** button in the diagram insert toolbar, then click in the diagram.
   The action creation wizard opens.
2. Create an implementation macro or select a macro corresponding to the required action:
   - "Automatic triggering of a transition": when the transition is triggered, you can automatically trigger another transition

     ☛ *For more details, see "Implementing scheduled transitions", page 54.*
   - "Automatic triggering of a transition with interaction"

     ☛ *For more details on macros with workflow interaction, see "Implementing Workflow Interactions", page 63.*
   - "Send mail"
   - "Send mail with interaction workflow"
   - "Send notification"
   - "Send notification with interaction workflow"

     ☛ *For more details on macros for sending notifications or e-mails, see "Configuring Actions with Message or Notification", page 66.*
   - "Update attribute for subject"

     ☛ *For more details, see "Managing object status with a specific attribute", page 62.*
3. Select the execution type:
   - Immediate
   - Scheduled

     ☛ *For more details on scheduling transitions, see "Implementing scheduled transitions", page 54.*
   - At dispatch

   Depending on the implementation macro selected and the execution type, different dialog boxes appear.
4. Click **Finish**.
5. In the diagram, connect the action you have just created to the workflow transition (or status) required.

WORKFLOW ADVANCED CONFIGURATION

Managing Workflow Object Statuses

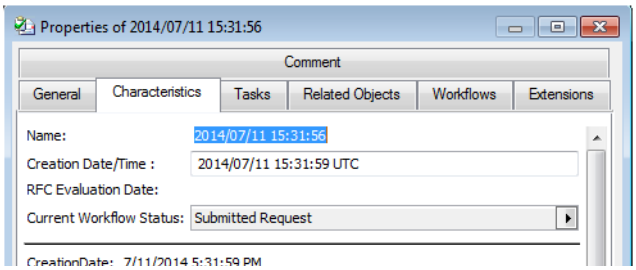
In **HOPEX Collaboration Manager**, the status of an object can be specified in two ways:

- with a generic attribute
- with a specific attribute

Managing object status with the generic attribute

The workflow engine supplies the generic attribute "Current Workflow Status".

It appears in the **Characteristics** tab of the properties dialog box of the workflow subject (or system workflow subject).

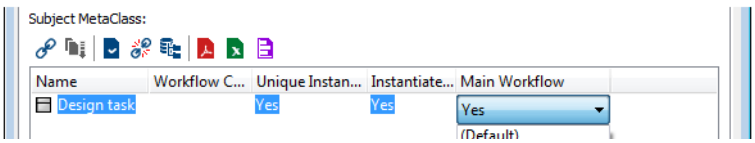


☛ *This attribute is a calculated attribute of identifier type. It contains the identifier of a workflow status.*

Several workflow definitions can be associated with an object. Among these workflow definitions however, only one can supply the object status.

To specify the workflow definition to be taken into account for object status calculation:

1. Open the properties dialog box of the workflow definition.
2. In the **Main Workflow** field, select value "Yes".



☛ *This is the link between the workflow definition and the subject MetaClass.*

Managing object status with a specific attribute

In certain cases, it can be useful not to use a generic attribute defined at workflow engine level to manage object state. This can be the case when certain workflow

statuses are considered too technical and the end user does not wish them to be visible. Here it consists of displaying a workflow state independent of workflow status.

HOPEX Collaboration Manager enables establishment of mapping between a specific attribute and the workflow status.

The generic macro ***Updating Attribute for Subject*** enables execution of an attribute update according to the current workflow status.

To carry out this configuration, you must:

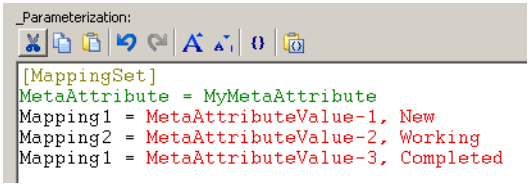
- define an action.
- associate this action with the generic macro "Updating Attribute for Subject".
- establish mapping between the attribute and the workflow statuses. This configuration is carried out in the "_Parameterization" text.
- connect the action to each transition on which you want to update the attribute.

To establish mapping between the specific attribute and the workflow statuses:

1. In the action properties dialog box, select the **Characteristics** tab.
2. In the **_Parameterization** frame, insert a section [MappingSet].
3. Indicate the identifier of the specific attribute you previously created.

   `<MappingAttribute>=<AttributId>`
4. Create the link between:
   - a MetaAttributeValue of the attribute
   - a workflow status

   `<Mapping%i%>=<MetaAttributeValueId>,<WorkflowStatutId>`



Implementing Workflow Interactions

Workflow interactions principle

From a workflow instance you can act on one or several other workflow instances: this is a workflow interaction.

The workflow interaction calls:

- A source workflow: workflow from which the transition is triggered.
- A target workflow: workflow called from the source workflow.

  Example: in the framework of a workflow on action plans, when a workflow is triggered, actions owned by the action plan must be triggered.

You can configure workflow interactions on:

- a workflow action
- a workflow condition

Configuration of a workflow interaction is carried out in two stages. You must use and configure:

- a workflow action macro
- a workflow interaction macro

☛ *Configuration of macros delivered as standard is explained in the **MEGA** interface, in the tooltip describing the macro.*

Workflow interaction macros

Workflow action macros call workflow interaction macros, which indicate how to access target workflow instances from the source workflow instance.

to create a workflow interaction macro:

❱ Implement the following method:

String getWorkflowInstanceTarget

Context	as WorkflowContextAction,
mgcollWorkflowInstanceTarget	as MegaCollection

)

where:

- Context is the workflow interaction execution context. This context uses the WorkflowContextAction interface.
- mgcollWorkflowInstanceTarget is the collection of target workflow instances. It is empty: you must fill it.

Workflow interaction examples

With e-mail sending

A user triggers a final workflow transition from a design task. An e-mail is sent to the person responsible for the request for change (if there is a request for change). The e-mail is to be sent only if the request for change is in course of processing.

To configure this workflow interaction:

1. Create an action with the macro "Send mail from transition with interaction workflow", with the following configuration:

   ```
   "Workflow=Target"
   ```

2. Use the workflow interaction macro "Interaction workflow defined with the Subject link on workflow action" with the following configuration:

   ```
   [WorkflowInteraction]
   SubjectLink = ~WceoJb1gEz7R[Motive system of task]
   ```

   ☛ *The link used is [Design task.Motive of task]*

   ```
   [WorkflowTargetCondition]
   WorkflowStatus = ~AwMZq391FDML[Request in progress]
   ```

   The e-mail is sent if the request for change is in "Request in progress" status.

With notification sending

As standard, an interaction exists between:

- the workflow definition of design tasks
- the workflow definition of requests for change

When the last task corresponding to a request for change is completed, a notification is sent to the owner of the request for change.

☛ *For more details on requests for change, see "Using Requests For Change", page 25.*

MANAGING E-MAILS AND NOTIFICATIONS

Configuring Actions with Message or Notification

When you create an action to configure e-mail and notification sending, you can configure fields defining:

- recipients
- subject
- the message body or the notification sent to persons concerned

☛ *For more details on actions, see "Workflow Actions", page 60.*

Defining text

The text of a message or notification can be defined in their properties dialog boxes, or in the workflow action creation dialog box (message or notification).

To define the text displayed in a mail or notification, you can:

- enter free text
- use tags

These tags can be used :

- in the subject of the message or notification

  ☛ *The subject corresponds to the first line of the message or notification comment.*

- in the body of the message or notification

Defining recipients

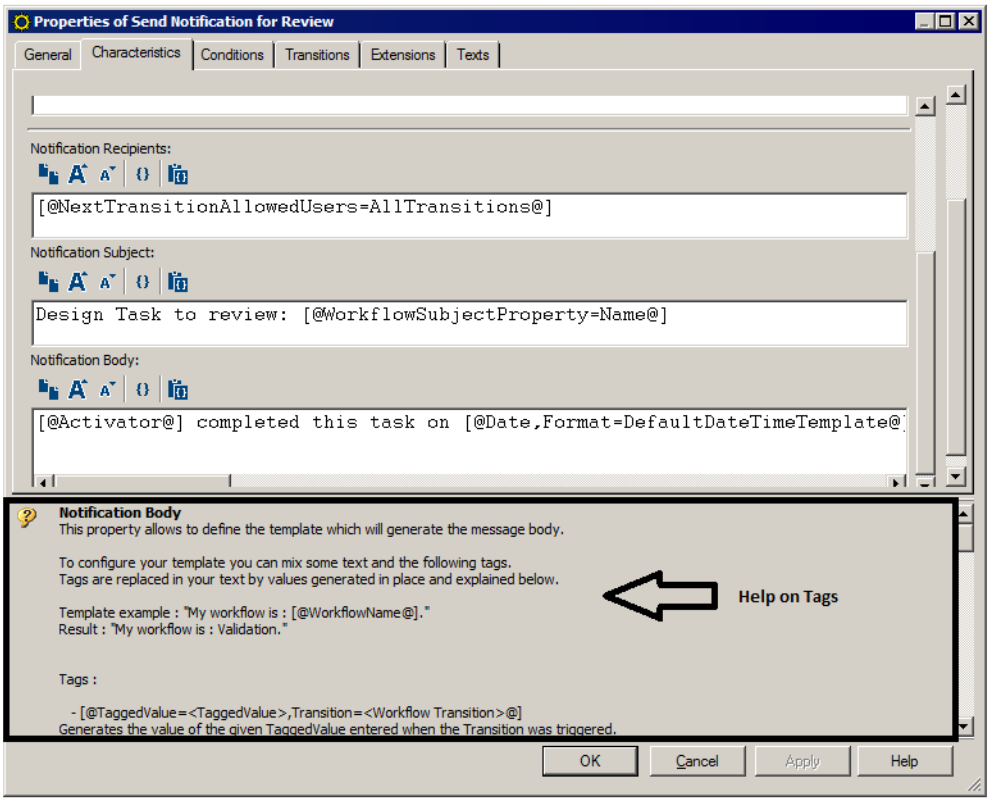
Tags also enable definition of message or notification recipients.

In the case of a message, an e-mail address can be entered directly.

Help on tags

Help on tags used is available in the properties dialog box of a workflow action.

☺ *Enlarge the context-sensitive help pane at the bottom of the dialog box to improve view of the tag description.*



Managing Languages

Notification languages

All languages specified in the body of the notification are taken in the notification.

E-mail language

E-mails sent following triggering of workflow transitions are:

- in the language of the enterprise specified in options and
- in the language of the user if different from language of the enterprise

To specify the language of the enterprise regarding workflow e-mails:

1. Select **Tools > Options**.
2. In the left pane of the window, select **Collaborative Environment**.
3. In the right pane, **Language of e-mails** field, select the required language and click **OK**.

Managing Objects and Attachments

Managing objects in notifications

The objects you have added on a workflow transition can be added to the notification in the form of a link.

☛ *Object types that can form a link in the notification must be associated with the abstract MetaClass "Notification Related Object".*

☛ *For more details on objects added on a workflow transition, see "Transition attachments", page 51.*

To add objects to the notification in the form of a link:

1. Define a workflow action on a transition or a workflow status and select a macro enabling sending of a notification.

   ☛ *For more details, see "Creating a workflow action", page 61.*

2. In the properties dialog box of the workflow action on the transition, select according to your requirements:
   - the **Attach the Subject** check box, to add to the notification a link to the workflow subject
   - a macro, in which you must implement the following method:

     ```
     Void getAttachments (ActionContext,
     AttachmentObjectCollection)
     ```

   - a query: relating to the subject, if present
   - a motive: all objects corresponding to the motive are added to the notification.

When you execute the workflow, the notification received contains a link to the objects indicated.

Managing attachments in e-mails

In an e-mail, objects you have added on a workflow transition can be the subject of an attachment.

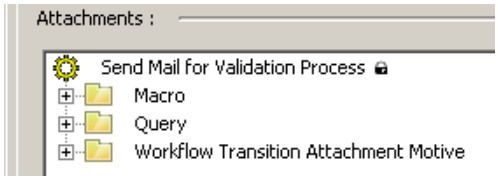
☛ *For more details on objects added on a workflow transition, see "Transition attachments", page 51.*

To be able to transform the object into an attachment:

1. Define a workflow action on a transition or a workflow status and select a macro enabling sending of an e-mail.

   ☛ *For more details, see "Creating a workflow action", page 61.*

2. In the properties dialog box of the workflow action on the transition, connect according to your requirements:
   - a macro
   - a query
   - a motive: all objects corresponding to the motive are added to the e-mail.



Indicating a URL in an e-mail

To be able to add the URL to the **MEGA** Web Application in an e-mail, you must previously specify access to **MEGA** in user options.

> ☛ *For more details, see the **MEGA Administration - Supervisor** guide, chapter "Managing users", paragraph "Managing Users from the Administration Desktop (Web)".*

You must specify the URL in the body of the message. To do this, you can select an object:

- directly via an absolute identifier (IdAbs=),
- by using a query (Query=)
  The query relates to the workflow subject or to the repository root (GetRoot)
- by using a Macro(Macro=)
  The macro must implement the function getUrlObject(WorkflowContextAction) which returns an object.
- by using a workflow subject (Subject).

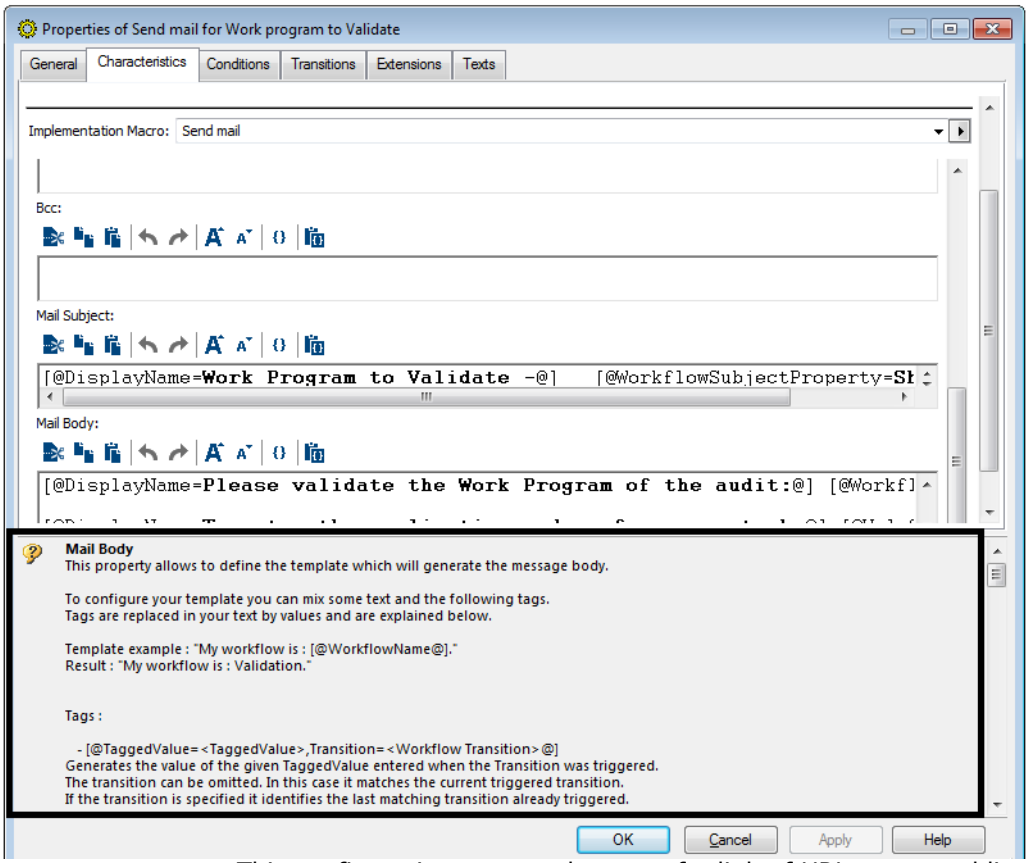
Adding a URL

To add a URL:

1. Open the properties dialog box of the workflow action corresponding to sending of the e-mail.

2. In the **Characteristics** tab, configure the body of the message as indicated in Help.

   ☛ ***To access help, click the Mail Body field. The detail of configuration of body of the message appears at the bottom of the dialog box.***



This configuration returns the text of a link of URL type, enabling access to an object from an e-mail.

Opening the application on a specific tab

To allow the user to directly access the appropriate tab in the application, you must carry out an additional configuration, which consists of:

- create an affinity and connect it to the appropriate Desktop Container.
  see "Creating an affinity and connecting it to a Desktop Container", page 71.

  ☛ *A Desktop Container corresponds to a tab in the application.*

- configure the workflow action concerned.
  see "Configuring the workflow action", page 72.

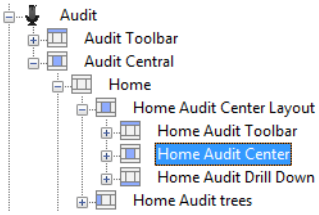
  ☛ *For more details on affinities and Desktop Containers in general, see technical article **HOPEX Studio - Versatile Desktop**.*

Creating an affinity and connecting it to a Desktop Container

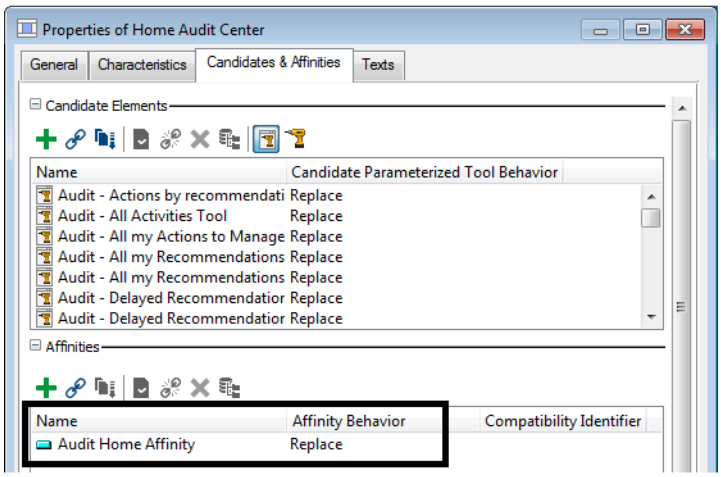
To create an affinity and connect it to a Desktop Container:

1. In the **MetaStudio** navigation tab, expand the folders to reach the desktop for which you wish to configure access.
2. Select the target Desktop Container.

   ☛ *The Desktop Container concerned must be at the lowest level in the desktop tree.*



3. In the properties of the Desktop Container, select the **Candidates & Affinities** tab.
4. Create an affinity, and in the **Affinity Behavior** field, select the value "Replace".
   In the example above, an affinity is connected to the "Audit Home" desktop, which corresponds to the Home navigation tab of the **MEGA** audit solution.



   This affinity will serve to complete the URL specified in the workflow action corresponding to message sending.

This configuration is supplied by default. If you have customized the standard workflow, you must also perform this customization.

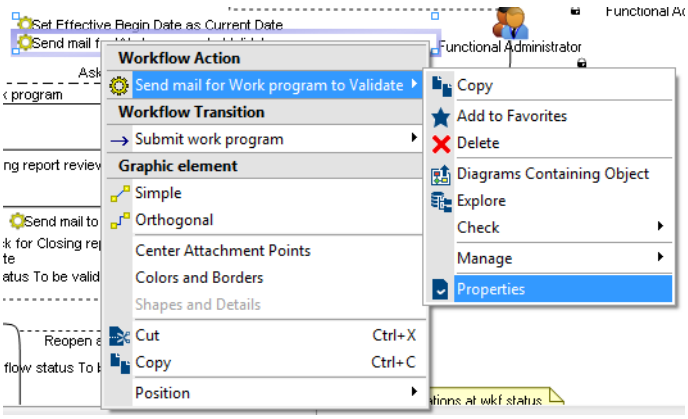
☛ *For your own workflows, you must create and connect an affinity to the appropriate "Desktop container" in the same way.*

Configuring the workflow action

You must now configure the workflow action concerning e-mail sending by referencing the previously created affinity.

To configure the corresponding workflow action:

1. In the workflow definition diagram of the workflow to be modified, right-click the workflow action to be configured and select **Properties**.



2. In the properties of the workflow action, select the **Texts** tab and in the drop-down list select **Mail Body**.
   In the message configuration text, you must complete URL configuration by adding a a string of this type:

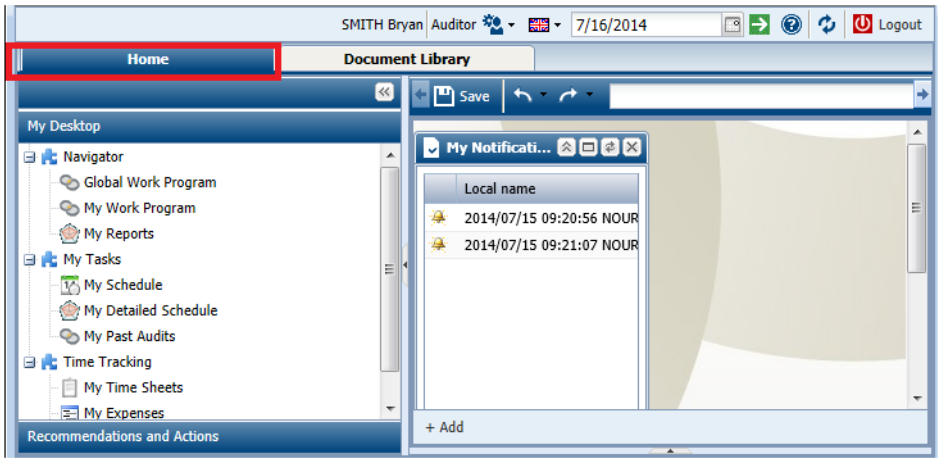
   ,***Affinity=~OhiFhJ5eJXd9[Audit Home Affinity]***

Example of text to be inserted in body of message

```
[@DisplayName=~htNzOjVgGHTM[To access the application and
execute your task,]@]
[@Url,Subject,Tool=PropertyPage,Application=~2zopd2TnFDcL[G
RC
Solutions],Desktop=~2hrUiL8DGX58[Audit],Name=~w7LgEpROGXPB[
Click here],Affinity=~OhiFhJ5eJXd9[Audit Home Affinity]@].
```

Result obtained

When the user clicks a link in the e-mail received, the application opens on the Home tab, as below:



MANAGING WORKFLOWS

This chapter is intended for the **MEGA** administrator. It describes how to manage workflows.

An administrator needs to carry out a certain number of administration tasks concerning workflows. Examples: stopping a workflow in progress or deactivating workflow options.

WORKFLOW ADMINISTRATION OPTIONS

Accessing Workflow Options

To access the option enabling workflow administration:

1. In **MEGA Administration**, open the desired environment.
2. Expand the **User management** folder of the environment.
3. Right-click the **Users** folder and select **Manage**.
4. In the user management dialog box, select the **Persons** tab.
5. Right-click the desired person and select **Options**.
6. In the left pane of the window that opens, select **Collaborative Environment**

Workflow Display RIghts

To give a user the rights to display workflows:

7. Access the workflow options as described in the section "Accessing Workflow Options", page 78.
8. Expand the **Collaborative Environment** and in the right pane, select the **"See the ... of all users"** options in question.

☛ *You can authorize display of all:*

- *requests for change*
- *design tasks*
- *validations*
- *unlocking requests*
- *workflows*
- *notifications*

Workflow Administration Rights

To give a user the rights to manage workflows:

1. Access the workflow options as described in the section "Accessing Workflow Options", page 78.
2. Expand the **Collaborative Environment** folder, and in the right pane, select the **Workflow Administrator** checkbox.

CONFIGURING STANDARD WORKFLOWS

When configuring a workflow supplied as standard, you may need to:

- add MetaClasses to extend the list of object types to which validations and requests for change apply.
- configure the **Collaboration** tree, for example by adding folders in the **Collaboration** navigation window (in the case of adding new workflow statuses).
  To do this, see the **HOPEX Studio - MEGA Studio** technical article, chapter "Configuring Navigation Trees".

> ☛ *Configuring a workflow requires expertise in **MEGA APIs**. You can if necessary seek the assistance of a product engineer.*

Adding a MetaClass

You can add MetaClasses that might be the subject of validation requests and requests for change.

To add a MetaClass to be validated:

1. Open the properties dialog box of the MetaClass you wish to add.
2. Select the **Characteristics** tab, then the **Advanced** subtab.
3. In the **SuperMetaClass** frame, click the **Connect** button to select abstract MetaClass "Validation Candidate Object".

To add a new MetaClass that could be associated with a request for change:

1. Open the properties dialog box of the **Request for Change** MetaClass.
2. Select the **Characteristics** tab, then the **Advanced** subtab.
3. In the **SuperMetaClass** frame, click the **Connect** button to select abstract MetaClass "Request for Change Related Object".

> ☛ *The operations described above do not require prior duplication of the workflow definition.*

> ☛ *For more details on abstract MetaClasses, see the **MEGA Studio** guide.*

Duplicating a workflow definition

You can initialize a new *workflow definition* by duplicating an existing workflow definition. Similarly, when you wish to configure a workflow supplied as standard, you must duplicate the corresponding workflow definition.

> **Do not modify the workflow definitions proposed by MEGA , to avoid your modifications being lost when updating to a new version of MEGA.**

To duplicate a workflow definition:

1. From the **Utilities** navigation window, expand the "Workflow Definitions" folder.
2. From the pop-up menu of the workflow definition, for example "Request For Change", select **Duplicate**.

3. Enter the name of the new workflow definition, as well as the prefix or suffix used to name duplicated objects.
   The new workflow definition is displayed in the "Workflow Definitions" folder.

When the workflow definition has been duplicated, you must:

- deactivate the obsolete workflow definition
- activate the duplicate of the workflow definition when you have completed specification

To activate or deactivate a workflow definition:

❱ In the workflow definition dialog box, select or clear the **Active Workflow Definition** check box.

☛ *If the workflow definition is deactivated the workflow cannot be started.*

STOPPING A WORKFLOW INSTANCE

You may need to stop a workflow instance at all times.

To stop a workflow instance in progress:

1. From:
   - ***MEGA Windows Front-End*** : In the **Collaboration** navigation tree, expand the **My Workflows** folder.
   - ***MEGA Web Front-End*** : In the Teamwork desktop, expand the **My Collaborative Tools** navigation pane.
2. In the list of workflows in progress, right-click the workflow concerned.
3. In the pop-up menu that appears, select **Stop Workflow**.
   The workflow is stopped.

Viewing Workflows in Progress

To view the user assigned to the next workflow status:

1. From:
   - ***MEGA Windows Front-End*** : In the **Collaboration** navigation tree, expand the **My Workflows** folder.
   - ***MEGA Web Front-End*** : In the Teamwork desktop, expand the **My Collaborative Tools** navigation pane.
2. In the list of workflows in progress, right-click the workflow concerned and select **Properties**.

   ☛ *In **MEGA Web Front-End**, the properties dialog box appears when you click the workflow instance.*
3. Select the **Status** tab, then the **Current Status** subtab. Persons are displayed in the **Assigned Persons** frame.

   ☛ *To stop and view workflows in progress, the **View workflows of all users** option must be activated (see "Workflow Administration Options", page 78).*

MANAGING WORKFLOW USERS

To manage the users of workflow instances you must have administration rights for workflows.

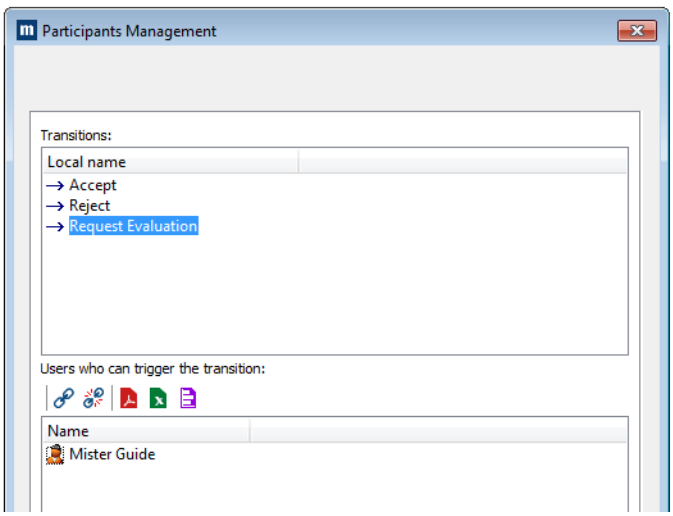
☛ *For more details, see "Workflow Administration Rights", page 78.*

In this context, "workflow user" corresponds to the list of users that can trigger a workflow transition.

To manage workflow users:

1. Right-click the on the workflow instance or the subject object of the workflow and select **Manage Participants**.
   The users who can trigger the next workflow transition appear.

   ☛ *If different workflow transitions are possible and different participants were defined for each of them in the workflow definition, **MEGA** provides a list of transitions.*
2. Click on a transition to modify the assigned users.
   The users currently assigned appear.
   You can remove a user and add another in the list provided for this purpose.



Example of how to use this functionality

Mrs. White was assigned to perform a particular transition (Request Evaluation, for example). If she is on holiday and the workflow must take place in her absence, you can add or remove another user here.

This user can connect to MEGA and perform the transition on behalf of Mrs. White.

MANAGING PERMISSIONS ON WORKFLOWS

Configuring Permissions on Objects

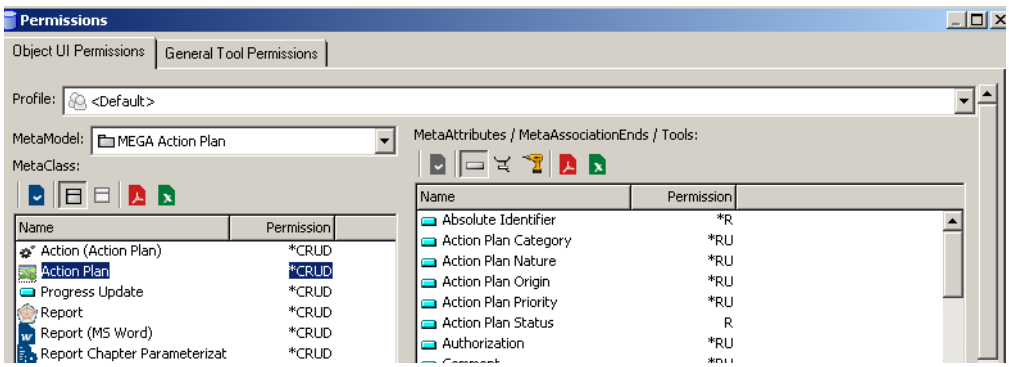
You can configure permissions on objects according to:

- user profile
- current workflow status.

To configure permissions:

1. In **MEGA Administration**, open the desired environment.
2. Expand the **User management** folder of the environment.
3. Right-click the **UI Access** folder and select **Manage**.
4. In the UI access management dialog box, select the **Object UIs** tab.
5. In the **Profile** field, select the **Profile** you want to configure.
6. In the **MetaClass** frame, select the workflow subject MetaClass.

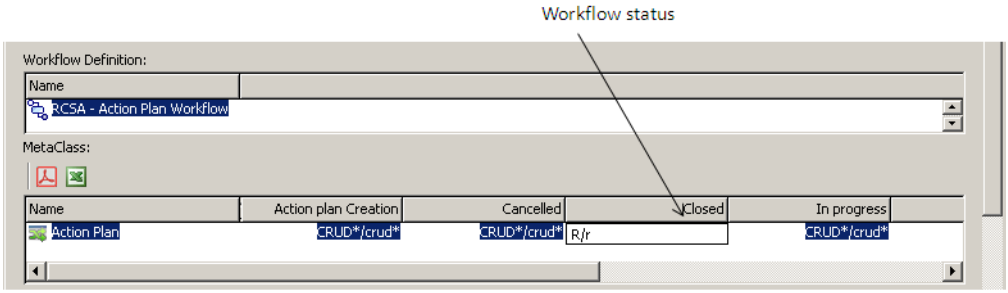
   ```
   Example: "Action plan"
   ```



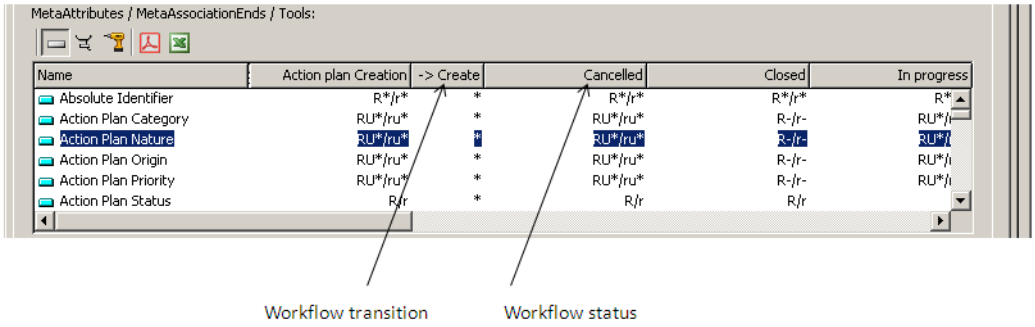
7. In the **Workflow Definition** section, select the workflow for which you want to define permissions.

8. Configure permissions on the MetaClass subject of the workflow according to the status reached by the workflow.

   Example: The permission "R" (=Read) in status "Closed" means that you cannot modify the action plan when it is in this status.



9. Similarly configure attributes and links available on this MetaClass.



Several values are possible on workflow statuses or transitions:

- indicates that the field (attribute or link) is mandatory in this workflow status.
  The user must specify this field to trigger the next workflow transition.
- " RU" (R=Read, U=Update): on a workflow transition, means that the field is proposed in edit mode in the user interface proposing the transition.

  ☛ *"RUM" means that the user must specify the field when triggering the workflow transition.*

Different permissions can be specified for workflow participants and non-participants:

- Values of permissions in upper-case, for example "RU" concern workflow participants.
- Values of permissions in lower-case, for example "ru" concern persons not participating in the workflow.

  ☛ *In the **Transition Attributes** frame, you can specify permissions on TaggedValues created on your workflow transitions. For more details, see "Information associated with workflow transition", page 49.*

Specifying Persons Authorized to Start a Workflow

To specify persons authorized to start a workflow, see "Associating persons with participants", page 46.

Generating a Report of Permissions by Workflow Definition

A report allows you to detail permissions for a given workflow.

This report is available with **MEGA Administration**.

You have the choice of main parameter:

- a workflow definition
- a profile

Generating the report from a profile

To generate this report:

1. In the menu bar, select **Tools > Manage Profiles and Permissions > Workflow Definition Permissions Reports**.
   A wizard opens.
2. (Optional) In the **Report File** field, modify the location in which to save the report. By default this is your user folder.
3. Select **By profile** for report configuration.
4. Select the **Profile** that interests you.
   The list of workflow definitions in which the workflow can intervene appears.
   You have two possibilities:
   - you do not select any workflow definition: the report displays permissions of the profile on all workflows in the list.
   - you select one or several workflow definitions: the report displays permissions of the profile on the selected workflows.
5. Click **OK**.
   The report is generated.

Generating the report from a workflow definition

To generate this report:

1. In the MEGA desktop, select **Tools > Manage Profiles and Permissions > Workflow Definition Permissions Reports**.
2. Select **By workflow definition** for report configuration.

3. Select the workflow definition that interests you.
   The list displays profiles that can intervene in the workflow.
   You have two possibilities:
   - you do not select any profile: the report displays permissions relating to the workflow for all profiles in the list.
   - you select one or several profiles: the report displays permissions relating to the workflow for all selected profiles.
4. Click **OK**.
   The report is generated.

Report content

For each workflow given as parameter, the wizard queries the MetaClass to which the workflow relates.

The generated Excel worksheet includes all permissions on each MetaClass:

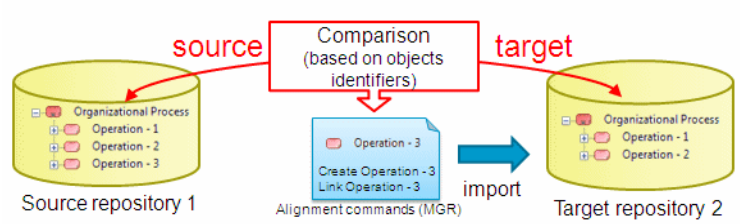
- for each profile
- workflow status /workflow transition.

> ☛ *For improved readability, missing permissions are replaced by _.*
> *For example: *RU is replaced by *_RU_.*

MANAGING REPOSITORY TRANSFERS

Presented here are use cases of the alignment functionality, as well as modes of transfer to a production repository.

HOPEX Collaboration Manager enables transfer of objects from their original repository (source) to a destination repository (target).



☛ *For more details on the Compare and Align feature underlying the alignment feature, see the **MEGA Administration - Supervisor** guide.*

✓ "Alignment Use Case", page 90
✓ "Modes of Transfer to a Production Repository", page 92
✓ "Transfering Objects", page 96

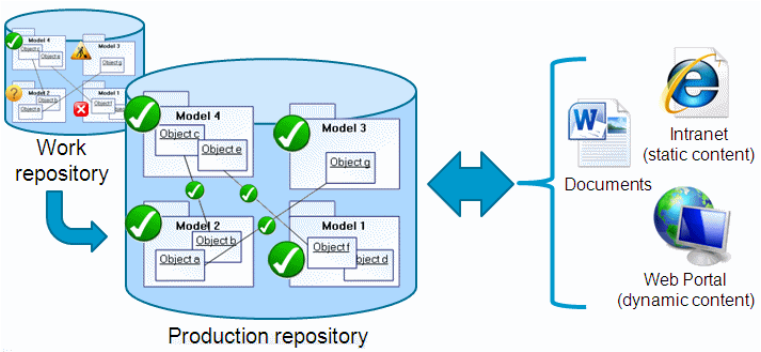
ALIGNMENT USE CASE

In teamworking, it can be difficult to work on a single repository, projects and diagrams not all having the same production cycles. Certain diagrams are in course of creation, while others can be already validated or requiring update.

Implementing a Production Repository

It may be necessary to install a production repository so as to have permanently available models ready for dispatch.

This production repository is supplied by work carried out in the work repository when it is ready for dispatch.



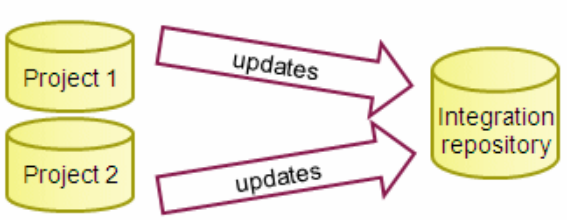
Transfering Objects Between Repositories

It can sometimes be necessary to transfer objects between repositories in a context other than that of the production repository.

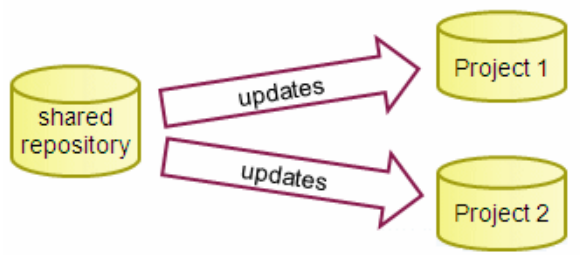
☛ *In these contexts, it can be necessary to define strict modeling rules to avoid conflicts.*

Some examples:

- Distinct projects and integration repository
  Modeling projects are initiated in distinct repositories. They are then transferred to an integration repository.



- Shared models
  Models are created in a single repository. They are then used in projects, each of which results in creation of a repository.



Modes of Transfer to a Production Repository

There are several possible modes of transfer of objects to a production repository.

Organizational and Technical Choices

Organizational choices impose constraints and influence the choice of transfer mode. Certain questions should be asked:

- Are modelers responsible for dispatch of their work?
- Is validation necessary before dispatch of models?
  Large teams generally require a validation step, which is not necessarily required by small teams.
- Which event triggers object transfer or validation?
- Who triggers transfer (modeler or validator)? From which repository (source repository or target repository)?

Depending on the selected organization, use of Compare and Align can be supplemented by:

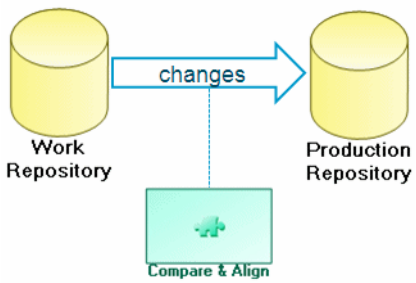
- design tasks
- validation workflow
- definition of perimeters, using the technical module. **MEGA Studio**

  ☛ *For more details, see the technical article "Customizing Perimeters".*
- import/export files

Transfering Objects in Push Mode

"Push" mode allows the user to transfer modifications from the work repository. It is not necessary to connect to the production repository.

"Push" mode without validation

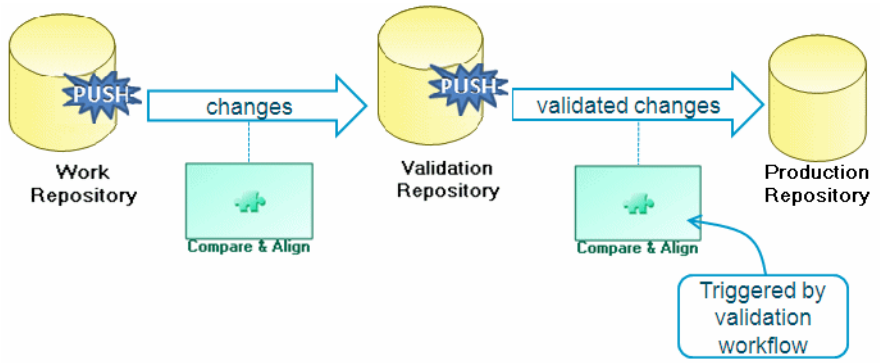


Variants are possible:

- transfer triggered at dispatch
- transfer with simultaneous dispatch

"Push" mode with validation

Data transfer by compare and align can be automatically triggered with installation of a validation workflow



Transfering Objects in Pull Mode

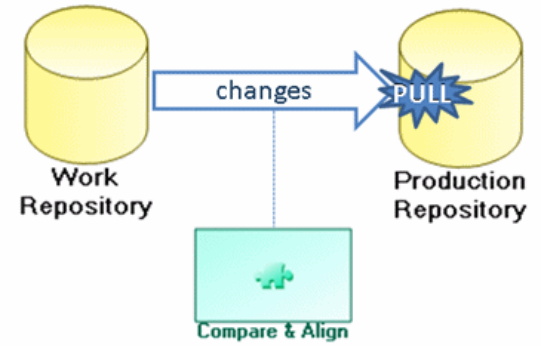
"Pull" mode requires connection to the production repository. Modifications are imported in a private workspace from the target repository.

If transfer is under the responsibility of users working in the source repository, this mode can prove to be restrictive. In this context, users connected to the source repository must:

- dispatch their private workspace in the work repository (source repository) and exit **MEGA**
- open a private workspace in the target repository
- import objects from the target repository
- dispatch the private workspace in the target repository
- open a new private workspace in the work repository (source repository) to continue modeling work

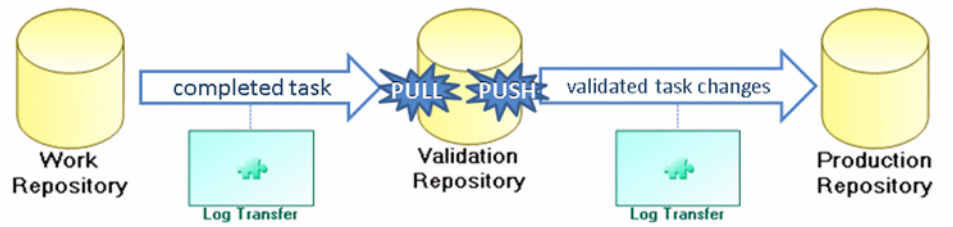
If however the transfer is under the responsibility of users controlling the transfer result before dispatch, "pull" mode has the advantage of allowing private workspace discard if necessary.

"Pull" mode with validation



- A model cannot be modified while it is awaiting validation
- These modifications are saved in the private workspace. The private workspace is dispatched if the model is validated.

"Pull" mode with use of design tasks

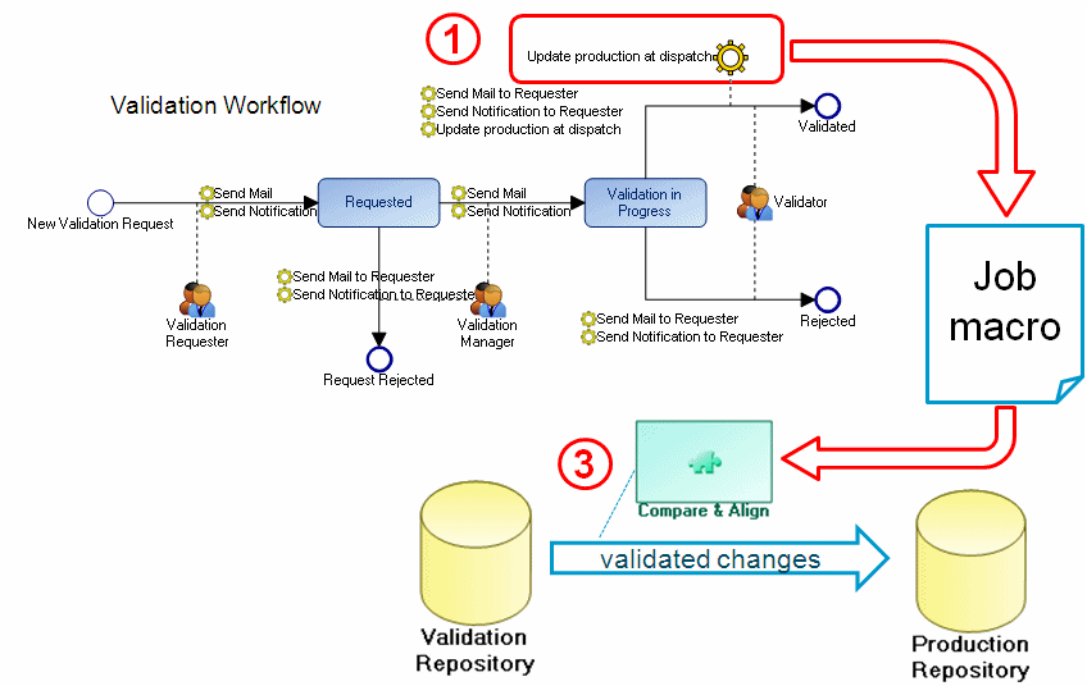


It may be necessary to check dependencies between tasks before export/import of the logfile.

Automatic alignment

The production repository is updated at the time of dispatch (1).

A "job" macro (2) automatically triggers alignment (3)



TRANSFERING OBJECTS

The HOPEX Collaboration Manager option allows you to transfer validated objects from one repository to another.

By default, only libraries can be transferred.

☛ *Other object types can however be transferred. To do this, you must first connect the corresponding MetaClass to the "Transfer Candidate Object" abstract MetaClass.*

Principle

Validated objects can be automatically transferred to another repository.

☛ *For more details on validation, see "Using the Validation Request Workflow", page 35.*

To be able to automatically transfer validated objects, you must first:

- create a transfer
- add the object to the transfer

Creating a Transfer

To create a transfer:

1. In the **Repository Activity** navigation window, expand the **Transfer Management** folder then the **Transfer Folder** sub-folder.
2. Right-click the **Not Scheduled Transfers** sub-folder and select **New Transfer**.
3. In the creation of transfer dialog box, select a transfer template if required and click **Next**.
4. In the transfer definition dialog box, enter the necessary elements if the transfer template has not already specified these.
   - source repository
   - target repository
   - transferred object
5. Click **Next**.
6. If required, select a person to be informed in the **Informed User** frame.
7. Click **Finish**.
8. In the final dialog box, select the transfer execution mode:
   - Execute at scheduled date (specifying date/time in the **Scheduled Transfer Date Time** field)
   - Execute as soon as possible

     ☛ *You can schedule transfer later. See "Scheduling a Transfer", page 97.*
9. Click **OK**.

Scheduling a Transfer

When the transfer has been created, you must schedule it.

To schedule a transfer (if not scheduled at the time of its creation):

1. In the **Repository Activity** dialog box, expand the sub-folder **Transfer Management > Transfer Folder > Not Scheduled Transfers**.
2. Right-click the transfer concerned and select **Schedule Transfer**.
3. In the dialog box that appears, select:
   - execution mode "Execute at Scheduled Date and Time"
   - the date and time concerned
4. Click **Finish**.
   When scheduled, the transfer appears under the **Scheduled Transfers** sub-folder.

Adding an Object to a Transfer

To add an object to a transfer:

1. Right-click the object to be transferred and select **Add to Transfer**.
2. In the list that appears, select the required transfer and click **OK**.

☛ *You can schedule the transfer at object validation.*

Transfering the Object

The object can be transferred:

- if it has been validated
- if it has been added to a transfer

The object is transferred:

- immediately if the transfer has not been scheduled
- at a time specified in transfer scheduling

☛ *The transfer is executed in the name of the person who saved the transfer.*

Managing Transfers and Transfer Templates

To view the transfers:

1. In the **Repository Activity** navigation window, expand the **Transfer Management** folder.
2. In the **Transfer Folder** sub-folder, you can view:
   - not scheduled transfers
   - scheduled transfers
   - executed transfers

To create a transfer template:

1. In the **Repository Activity** navigation window, expand the **Transfer Management** folder.
2. Right-click the **Transfer Templates** folder and select **New > Transfer Template**.
3. Indicate:
   - a source repository
   - a target repository
   - the object to be transferred
4. Click **Finish**.

☛ *You can now use this transfer template when creating a transfer.*

Snapshots

Sommaire

REPOSITORY SNAPSHOTS

A repository snapshot identifies an archived state of the repository. The repository administrator or functional administrator may need to create snapshots to record important states in the repository life cycle.

Repository Snapshots are necessary for use of different functionalities such as the comparison of diagrams, the transfer of objects and the view of the repository at an earlier date.

MANAGING REPOSITORY SNAPSHOTS

Prerequisites

To be able to use repository snapshots, you must:

- have a repository in RDBMS format

  ☛ *For more details on creation of an RDBMS format repository, see the technical article "Repository - RDBMS Installation Guide".*

- activate the repository log (from the repository properties)

  ☛ *For more details on repository log activation, see the administrator guide, "Managing Repositories", "Managing Logfiles".*

- select the "Authorize management of repository snapshots in the workspace" (**Options > Collaborative Environment**)

  ☛ *This option is not necessary if you have used the Administration application to create repository snapshots.*

- set up a procedure for taking account of repository snapshots before deletion of historical data.
  A repository snapshot identifies an archived state of the repository. When an archived state of the repository has been deleted, it is no longer possible to create a repository snapshot corresponding to this state. It is therefore important to take management of repository snapshots into account when deleting historical data (in the pop-up menu of a repository, **RDBMS Administration > Deletion of historical data from repository**).

  ☛ *For more details, see the technical article "Repository - RDBMS Installation Guide", "MEGA Historical Data Cleanup".*

  ☛ *You do not require the Administration application to create repository snapshots. Your associated profile must have the option "Enable repository snapshots management in the workspace" (**Options > Collaborative Environment**).*

Creating Repository Snapshots

☛ *You can create a repository snapshot for RDBMS format repositories.*

You can create repository snapshots:

- from the Administration application ("Administration.exe")
- from the **MEGA** desktop ("MEGA.exe")
  The "Authorize management of repository snapshots in the workspace" option must be selected (**Options > Collaborative Environment**)

Creating a repository snapshot from the Administration application

From MEGA Windows Front-End

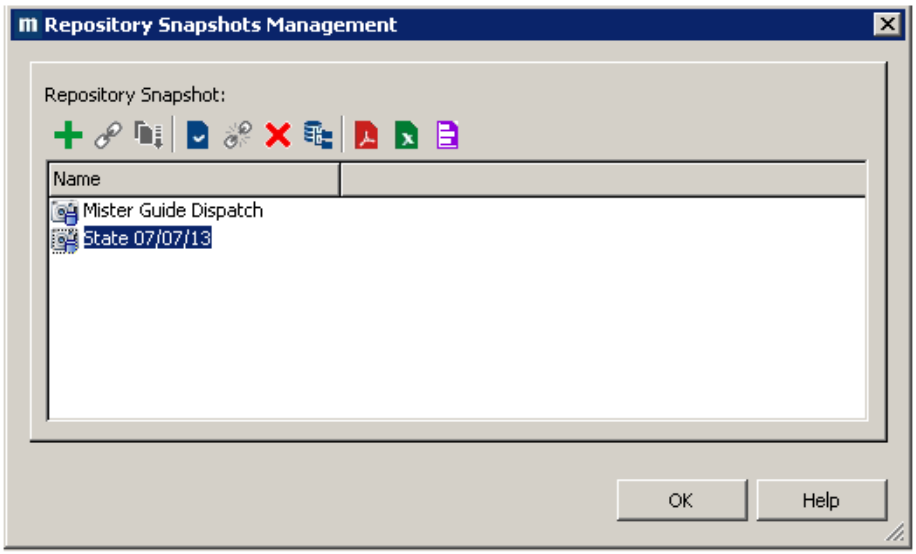
To create a snapshot from the Administration application:

1. Double-click the "Administration.exe" file 

.
2. Connect to the environment with a user that has an Administrator profile.

   ☛ *For more details, see the "Connecting to an Environment" procedure in the **MEGA Administration - Supervisor** guide.*
3. Expand the **Repositories** folder.
4. Expand the repository folder (RDBMS format).
5. Right-click the **Repository Snapshots** folder and select **Manage**.
6. In the repository snapshots management dialog box, click **New**  .
   A creation wizard appears.
7. Select the criterion to be used to find the state of the repository to be photographed:
   - Resolved design tasks
   - Dispatches
8. Click **Next**.
9. In the **Local Name** field, enter the repository snapshot name.
10. Select the task/dispatch
11. Click **Finish**.

12. (Optional) Add other repository snapshots, repeat steps 6 to 11.
You obtain a list of snapshots as below, irrespective of the criterion selected for snapshot creation (design task or dispatch).



☛ *In all cases, repository states correspond to the moment data is dispatched.*

☛ *In the snapshot management dialog box, you can delete snapshots or view their properties.*

From MEGA Web Front-End

To create a snapshot from the **MEGA Web Front-End**Administration desktop:

1. Click **Repository Management > Manage Repository Snapshots > Repository Snapshots**.
2. Click **New**.
   A creation wizard appears.
3. Select the criterion to be used to find the state of the repository to be photographed:
   - Resolved design tasks
   - Dispatches
4. Click **Next**.
5. In the **Local Name** field, enter the repository snapshot name.
6. Select the task/dispatch
7. Click **Finish**.

Creating a repository snapshot from the MEGA desktop

☛ *To create a repository snapshot, the "Authorize management of repository snapshots in the workspace" option must have been selected (**Options > Collaborative Environment**) It is recommended that this option be selected at profile level.*

To create a repository snapshot from the **MEGA** desktop:

1. Connect to **MEGA**.

2. In the **Tools > Manage** menu, select **Manage Repository Snapshots**. In the dialog box that appears, you can create and delete repository snapshots as explained in the procedure "Creating a repository snapshot from the Administration application", page 3.

REPOSITORY SNAPSHOTS USE CASE

Repository snapshots are used in::

- Comparison of diagrams

  ☛ *For more details, see "Comparing Two Diagram States", page 6.*

- The Compare-Align function

  ☛ *For more details, see "Comparing and Aligning Two Objects States Over Time", page 8.*

- Time Machine to view the repository at an earlier date (Time Machine).

  ☛ *For more details see the **MEGA Common Features** guide, "Handling Repository Objects" chapter.*

- Transfer of objects

  ☛ *For more details, see the guide concerning use of workflows.*

Comparing Two Diagram States

HOPEX Collaboration Manager allows you to compare several states of the same diagram in time. The diagram has been photographed at different moments at creation of repository snapshots.

☛ *This functionality is available with an RDBMS format repository only. You must first have created repository snapshots. For more details, see "Managing Repository Snapshots", page 2.*

🕮 *A repository snapshot identifies an archived state of the repository.*

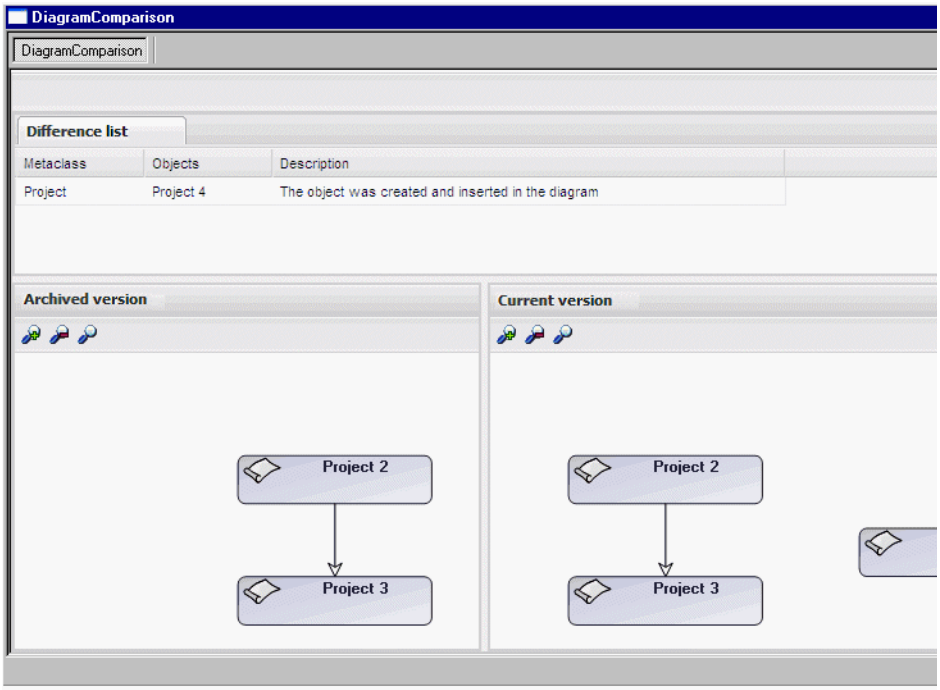
This functionality provides an interface enabling, for example, viewing of certain objects that have been added or deleted in a diagram since a given repository state. It consists of time navigation applied to diagrams.

To run diagram comparison:

1. In the pop-up menu of a diagram, select **Manage > Compare with an archived state**.
   The repository archived state selection tool opens.
   You must select a repository state associated with an object of one of the following types:
   - a repository snapshot
   - a dispatch
   - a design task

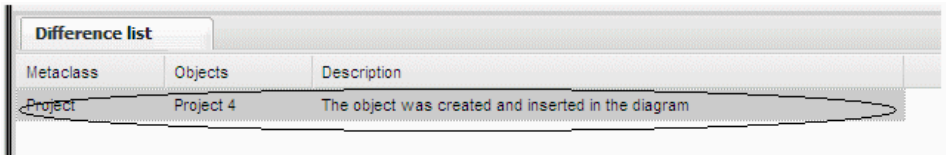
2. Click **Next** then **Finish**.
   A comparison dialog box opens:
   - The left pane presents the archived version of the diagram
   - The right pane presents the current version of the diagram

     ☛ *You can modify arrangement of panes (position them at the side or at the bottom).*

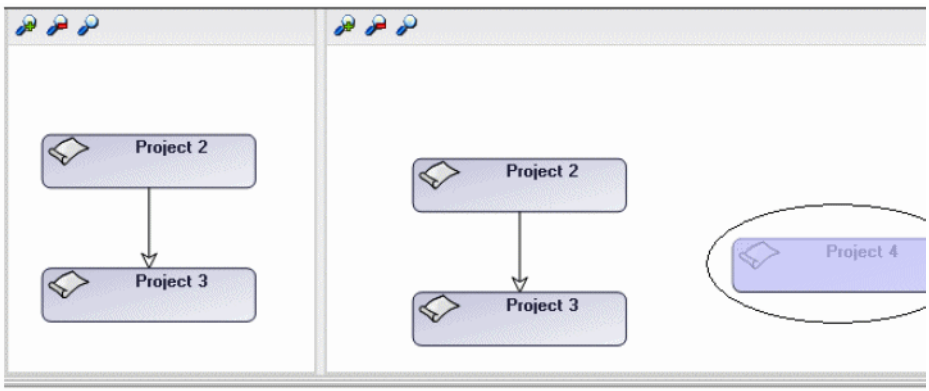


3. Double-click a difference title

   Example: double-click the title indicating that an object has been created between two repository states.



Modifications carried out in the diagram blink (in this example, the object created).



☛ *You can zoom in/zoom out or request view of the complete diagram in a window by clicking one of the following buttons:*

☛ *If you wish to return to an earlier diagram state, you must use the "Compare and Align" functionality (see "Comparing and Aligning Two Objects States Over Time", page 8).*

Comparing and Aligning Two Objects States Over Time

Repository snapshots also enable determination of what has changed on an object, other than a diagram, related to an earlier state of the same object.

☛ *The compare and align functionality allows you to reverse certain object modifications.*

To compare and align two versions of the same object:

1. Right-click the object and select **Manage > Compare and Align**.

   ☛ *You can also access this functionality from menu **Tools > Manage > Compare and Align**.*

2. In the **Select the comparison method** dialog box, select **Two archived states from the current repository**.
3. Click **Next**.

4. In the **Source Repository Archived State** field, click the arrow and select **Archived State**.

   ☛ *The source repository serves as reference for comparison and alignment.*

5. Using the archived state selection mode wizard, select a repository state associated with an object of the following type:
   - repository snapshot
   - dispatch
   - design task
6. In the **Target Repository Archived State** field, select **Current State**.

   ☛ *You can also select **Current Transaction Initial Archived State** to select the repository state at the moment you opened the transaction.*

   ☛ *To compare all objects of a repository, select the **Compare All Repository Objects** check box.*

7. Click **Next** until reaching **Finish**.

The destination state is aligned with the archived origin state: the object has returned to its earlier state.

Using Repository Snapshots for the Time Machine

The time machine which enables to view earlier states of the repository relies on repository snapshots.

For more details on the time machine, see **MEGA Common Features**, "Handling Repository Objects", "Consulting Repository State at an Earlier State".

If there is no repository snapshot for the selected date, the previous one is taken into account.

Example of view of the repository

A snapshot is created twice a week, for instance:

- Snapshot 1: March 26
- Snapshot 2: March 30

On July 2 (current date), a date is selected in the time machine calendar.

Below are the repository views obtained as a function of the snapshots created previously:

Selected date (at Time Machine level)	Repository view obtained
March 24	July 2
March 25	July 2
March 26	Snapshot 1

Selected date (at Time Machine level)	Repository view obtained
March 30	Snapshot 2
July 1	Snapshot 2
July 2	Last view (baseline) of the repository

Action Plans

Sommaire

INTRODUCTION TO ACTION PLANS

This action plan management function consists of defining, executing and following up a certain number of actions in a project framework. This function is transverse to the different HOPEX solutions (**HOPEX ERM**, **MEGA LDC**, etc.), but is also available in the **HOPEX Collaboration Manager** product; this is the product described by this user guide.

The following points are covered in this chapter are:

ACTION PLAN IMPLEMENTATION PROCESS

Associated with all **MEGA** Suite products, and more specifically **HOPEX ERM**, **MEGA LDC** enables identification, assessment and remediation of incidents.

Creating the action plan

When the action plan is created, it is in "To submit" state.

By default, the action plan creator is the action plan **Owner**.

Having specified the characteristics of a new action plan, the creator can: **Propose** the action plan.

Validating the action plan

The action plan "Responsible" user can **Validate** or **Cancel** the action plan.

- **Validate**: the action plan, which then takes status can be executed.
- **Cancel**: the action plan which takes status "Canceled".

Executing the action plan

Having executed actions relating to the action plan, the "Owner" can: **Terminate** the action plan which takes status "Closed". To do this, all action plan actions must be terminated.

Closing the action plan

After having consulted action plan follow-up reports, the "Approver" user can **Close** and then **Reopen** the action plan.

- **Close**: the action plan, which retains "Closed" status and disappears from the task lists of creator, approver and owner.
- **Reopen**: additional actions can then be created. The action plan again takes status "In Progress".

ACCESSING ACTION PLANS OF HOPEX COLLABORATION MANAGER

Prerequisites for using action plans module

Below is a summary of functions available with each product or option.

Product/Option	Features
HOPEX Collaboration Manager	- Creating and executing action plans and actions
HOPEX Studio	- Creating and modifying workflow definitions - Adding objects on which to execute action plans

Connecting to HOPEX Collaboration Manager

Pour connect to MEGA, see **MEGA Common Features**, "MEGA desktop", "Accessing MEGA (MEGA Web Front-End)".

Business Roles Linked to Action Plans

Presentation of the solution interface depends on the business role selected by the user at connection to the application; the tree of menus and functions can vary from one business role to another.

Before organizing work with **MEGA**, appropriate teams must be set up and roles and responsibilities assigned. To do this, a set of tools enables creation and management of the different participants.

☛ *For more details on management of users, profiles and roles, see the **MEGA Administration - Supervisor** guide.*

In **HOPEX Collaboration Manager**, each business role is associated with a single profile.

☛ *For more details on the characteristics of roles, see "Profiles Linked to Action Plans", page 8.*

Action Plan Manager

Has authorizations for creation of action plans and their associated actions. He/she can access all follow-up reports. The action plans created by the Action Plan Manager respect top-down workflow.

Action Plan Owner

Has authorizations for modification of action plans and creation of associated actions. He/she can only access action plans of which he/she is the owner. He/she cannot access follow-up reports of all action plans.

Action Owner

Has authorizations to access their assigned actions. The "Action Owner" can also consult the action plans containing his actions.

Action plan approver

This is the person who can approve starting an action plan.

It is not a connection role, since it is not associated with a profile. User of a **MEGA** solution, the approver has another role elsewhere.

Action plan creator

This role can be used by a user to modify his action plans and to create new ones. However, the new action plans must be validated by an approver before being implemented (workflow Bottom-Up). An Action plan creator can also create or modify the actions of his action plans.

Profiles Linked to Action Plans

Profiles define rights associated with roles. Profiles can be composed between themselves, for example the "Action Plan User" profile is a technical sub-profile of other profiles.

The profiles used are:

- Action Plan Manager
- Action Plan Creator
- Action Plan Owner
- Action Owner
- Action Plan User: this is a technical profile used in solutions to group basic rights shared by all users of action plans.

Generally in HOPEX solutions, profiles authorized to create actions are those authorized to manage action plans (example: audit director, lead auditor). All users can execute actions.

Profile	Action	Web menu
Action Plan Manager	View and follow up existing action plans (top-down workflow) Create action plans Creating actions Validate action plans (if approver) Access action plan reports	Action Plan > My Desktop > My Responsibilities Action Plan > Action Plans Action Plan > Reports
Action Plan Owner	View existing action plans Validate action plans (if approver) Accept or reject action plans Close action plans	Action Plan > My Desktop > My Responsibilities Action Plan > Action Plans
Action Owner	Execute actions	Action Plan > My Desktop > My Responsibilities
Action plan creator	Create action plans (bottom-up workflow) View and follow up action plans	Action Plan > My Desktop ...
Action Plan User	Common access rights (technical profile included in other profiles)	

DESKTOPS LINKED TO ACTION PLANS

This section presents desktops proposed to the different profiles concerned by action plans.

Desktop proposed to the action plan manager

This profile accesses the same commands as profiles "Action Owner" and "Action Plan Owner". It has an additional command to access follow-up reports of all action plans: **Action Plan > Reports**.

☛ *For more details, see "Action Plan Follow-Up Reports", page 25.*

Desktop proposed to the action plan owner

The "Action Owner" can only access action plans of which he/she is owner, and their actions.

To access the list of action plans, the "Action Plan Owner" must:

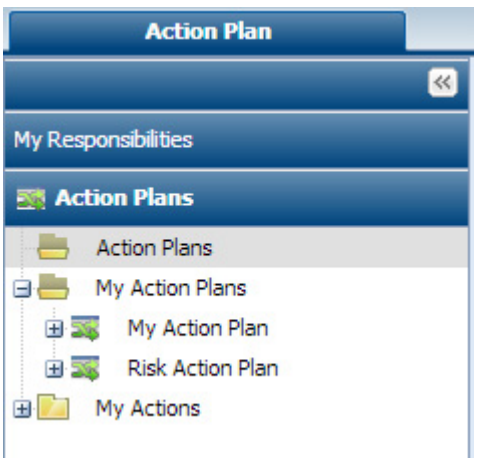
- Select the command **Action Plan > My Responsibilities > My Action Plans**.

The "Action Plan Owner" can also access the list of his/her action plans and the actions he/she has created.

To access these lists, the "Action Plan Owner" must:

- Select **Action Plan > My Responsibilities >Action Plans**.
  Folders displayed concern:
  - All action plans created
  - All action plans created by the connected person
  - Actions created by the connected person.

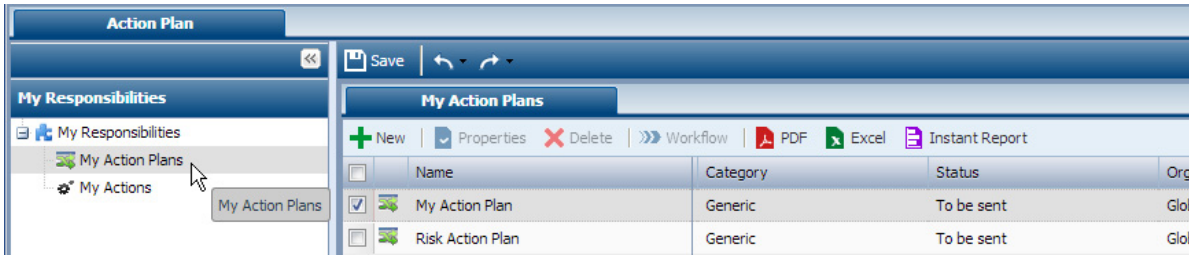
☛ *For more information on the different action plan steps, see "Action Plan Workflows", page 32.*



Desktop proposed to the action owner

To access the list of action plans, the "Action Owner" must:

- Select **Action Plan > My Responsibilities > My Action Plans**.
  The list of action plans concerning actions placed under the responsibility of the connected person is displayed in the edit area.



To access action plan properties:

1. Select the action plan.
2. Click **Properties**.

> *For more information on action plans, see "Supplementing Action Plan Information", page 16.*

> *For more details on action properties, see "Creating an Action", page 20.*

About This Guide

Guide Structure

This guide presents the functionalities of **HOPEX Collaboration Manager** linked to action plans. The guide comprises the following chapters:

- "Action Plans", page 15
- "Glossary", page 29.
- "Appendices", page 31

Additional Resources

This guide is supplemented by:

- the **MEGA Common Features Common Features** guide, which describes the Web interface and tools specific to MEGA solutions.

  ☛ *It can be useful to consult this guide for a general presentation of the interface.*

- **HOPEX Studio** article, for more details on steering calendars configuration
- the administration guide **MEGA Administration - Supervisor**, **MEGA Administration - Supervisor**,, for management of profiles and roles of your users.

CONVENTIONS USED IN THE GUIDE

☛ *Remark on the preceding points.*

📖 *Definition of terms used.*

☺ *A tip that may simplify things.*

Compatibility with previous versions.

Things you must not do.

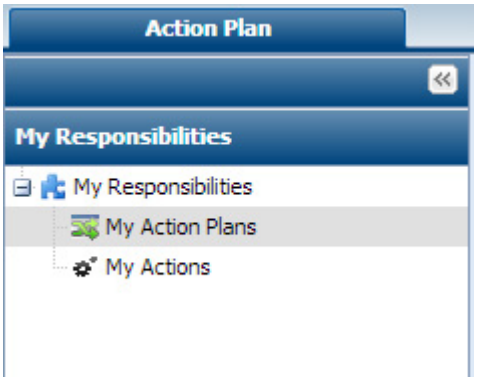
Very important remark to avoid errors during an operation.

Commands are presented as seen here: **File > Open**.

Names of products and technical modules are presented in bold as seen here: **MEGA**.

Command formulation convention

To reference a command in the solution, and with a view to simplification, the following formulation has been adopted in this guide:

Application command	Formulation adopted in this guide
	Select **Action Plan**> **My Responsibilities** > **My Action Plans**.

Example of a command with its formulation in the guide

ACTION PLANS

This chapter describes operation of action plans and their customization.

USING ACTION PLANS

This chapter introduces the operating principles of *action plans* proposed as standard in **MEGA**.

> 🕮 *An action plan comprises a series of actions. Its objective is to reduce the risks or events that have a negative impact on enterprise activities, or to improve efficiency of a process or organization.*

Two workflows are proposed to manage steps of two types of action plan progression:

- A **Bottom-Up** workflow, which corresponds to the case where an action plan is created by any user. The new action plan must then be validated by an approver before being implemented.
- A **Top-Down** workflow, which corresponds to the case where an action plan is created by a responsible user (action plan manager or action plan owner). The validation step of the new action plan is not necessary in this case.

> ☛ *For more information on action plan standard workflows, see "Appendices", page 31.*

Creating Action Plans

To create an action plan:

1. Select **Home > My Desktop > My Responsibilities > My Action Plans**.
2. In the edit area, click the **New** button.
   The action plan is created and added to the list of action plans. The action plan is created with status "Open".

Supplementing Action Plan Information

Before proposing the action plan for approval, the action plan requester can fill in information on the action plan.

To update fields that characterize an action plan:

❱ Open the properties of the action plan that interests you.
In the **Characteristics** tab, the following sections appear:

- "General characteristics", page 17
- "Action plan statuses", page 17
- "Managing Actions", page 20
- "Success factors", page 18
- "Scope", page 18
- "Milestones", page 18
- "Attachments", page 18

General characteristics

In the **Characteristics** section, you can specify action plan fields, for example:

- **Name**: action plan name.
- **Owner**: this field is specified by default by the user who created the action plan.
- **Owner Entity**: enables restriction of the list of owner entities.
- **Approver**: user responsible for validation of the action plan when all actions are completed.
- **Means**: text description of means required/desired for action plan execution.
- **Priority**: enables indication of a level. Priority can be: "Low", "Medium", "High" or "Critical".
- **Organizational Level**: final objective of plan; this can be "Global" or "Local".
- **Origin**: enables definition of the context of carrying out the action plan: "Audit", "Compliance", "Event", "Risk", "RFC" or "Others".
- **Category**: enables specification of the action undertaken, for example: "Process Improvement".
- **Nature**: enables definition of the action plan undertaken: "Preventive" or "Corrective".
- **Comment**: supplements information on the action plan and its characteristics.

Action plan statuses

- **To Send**: proposed by the action plan creator.
- **To Start**: accepted by the person designated as "approver" in the properties of an action plan.
- **Canceled**: the action plan responsible user has refused the action plan, which will not be implemented.
- **In Progress**: accepted by the action plan responsible user, actions are defined or being executed.
- **Completed**: all action plan actions have been executed. The responsible user has submitted a closing request to the approver, who can accept or refuse it.
- **Closed**: the action plan is completed and approved.

Financial assertion

- **Forecast Cost**: estimate of action plan cost expressed in **Currency**.
- **Real Cost**: action plan real cost expressed in **Currency**.
- **Forecast Cost (Man-Days)**: estimate in man-days of action plan implementation workload.
- **Real Cost (Man-Days)**: cost of action plan implementation expressed in man-days .

Success factors

In the **Success Factors** section, you can specify in text the success indicators enabling assessment of success of the action plan.

- **Key Success Factors**: text information on action plan success factors.
- **Success**: information on action plan final success. "None", "True" or "False"
- **Comments on Success**: text information on action plan results.

Scope

To position an action plan in its environment, you can associate objects with the action plan in the **Scope** section.

You can connect objects of risk, business and organizational process, control, entity or application type.

Milestones

Milestones are important dates of the action plan. You can specify these dates later.

- **Effective Begin Date** and **Planned Begin Date**
- **Effective End Date** and **Planned End Date**

Attachments

You can attach business documents to an action plan:

☛ *For more details on the use of business documents, see the **MEGA Common Features** guide.*

Action Plan Progress Steps

Creating the action plan

When the action plan is created, it is in "To submit" state.

By default, the action plan creator is the action plan **Owner**. Having specified the characteristics of a new action plan, the creator can:

- **Propose** the action plan.
  In this case, the user defined as "Approver" receives a notification mail, and the new action plan appears with status "To Begin" in his/her tasks list.

Preparing the action plan

The action plan "Responsible" user can **Validate** or **Cancel** the action plan.

- **Validate**: the action plan, which then takes status "In Progress". Actions can then be created.
- **Cancel**: the action plan which takes status "Canceled".

Executing the action plan

Having executed actions relating to the action plan, the "Owner" can:

- **Terminate** the action plan which takes status "Closed". To do this, all action plan actions must be terminated.
  The "Approver" user is notified of the action plan termination request.

Closing the action plan

After having consulted action plan follow-up reports, the "Approver" user can **Close** and then **Reopen** the action plan.

- **Close**: the action plan, which retains "Closed" status and disappears from the task lists of creator, approver and owner.
- **Reopen**: additional actions can then be created. The action plan again takes status "In Progress".

☛ *For more information on action plan workflow, see "Action Plan Workflows", page 32.*

MANAGING ACTIONS

The action plan Responsible User must define actions enabling execution of the action plan. The Responsible User can create actions and assign these.

Creating an Action

To create an action from an action plan:

1. Select **Home > My Desktop > My Responsibilities > My Action Plans**.
2. In the page that appears, select the action plan that interests you and click **Property**.
3. In the **Actions** section, click **New**.
   The action appears in the list of action plan actions.
4. Open the properties of the action and specify its **Name**.
5. Specify the following fields:
   - **Priority**: enables indication of a level. Priority can be: "Low", "Medium", "High" or "Critical".
   - **Action Responsible**: responsible for the action as specified by the action plan creator.
   - **Owner Entity**: owner organization unit enabling restriction of the list of action owners.
6. You can specify milestones, which are important dates of the action.
   - **Effective Begin Date** and **Planned Begin Date**.
   - **Effective End Date** and **Planned End Date**.
7. Click **OK**.
   The action is created with "Created" status.
8. Connect the controls you want to implement.

☛ *These fields are accessible when the action has taken "Open" status.*

Action statuses

- **Created**: the action is created.
- **Project**: the created action awaits opening by the "action owner".
- **In Progress**:action is accepted by its owner.
- **To Close**: the action is completed and must be approved by the "action plan owner or approver".
- **Closed**:the action is completed and approved.

Defining Action Scope

An action can concern one or several objects of control, risk or application type.

For example, to define the controls that will be executed in the framework of the action:

1. Open the properties of the action.
2. Expand the **Scope** section.
3. Connect the controls you want to implement.

> ☛ *These fields are accessible when the action has taken "Open" status.*

Action Management Steps

> ☛ *For more details on an action workflow, see the, chapter "Le workflow d'une action" in the **HOPEX Collaboration Manager guide**.*

When an action has been created, the action creator can declare the action as being in "Project" status.

When all actions of an action plan have been published and accepted, the action plan can be implemented.

Command proposed to creator

Having specified the characteristics of a new action, the "action plan owner or approver" can use the commend:

- **Project**.
  In this case the user defined as "Responsible User" receives a notification by mail and the new action takes status "Project".

Command proposed to entities concerned by an action in "Project" status

When an action has been proposed by the user the "action plan owner or approver" and the "Responsible" user can:

- **Open** the action, which takes status "Open".

Command proposed to "Open" action responsible user

Having studied action execution possibilities, the "Responsible User" can:

- **Terminate** the action.
  A notification is sent to the user defined as "action plan owner or approver".

Commands proposed to the "action plan owner or approver" of a terminated action

After studying characteristics of the action he/she created, the action plan owner or approver" creator can:

- **Close**.
  In this case the user defined as "Responsible" receives a notification and the action takes status "Closed".
- **Return to responsible user**, for supplementary actions.

ASSURE FOLLOW-UP OF ACTION PLAN

Action plan progress is specified at periodic dates by the action plan responsible user. For more details, see "Specifying action plan progress rate", page 23.

So that a reminder e-mail can be automatically sent to the action plan responsible user, you can connect a **Steering Calendar** to the action plan. For more details, see "Using a steering calendar", page 23.

Specifying action plan progress rate

The action plan progress rate can be specified if the action plan is in the status "In progress", that is it has been validated.

To indicate progress of an action plan:

1. Open the properties of the action plan and expand the **Action Plan Progress** section.
2. In the **Progress Rate** table, click **New**.
   The **Progress Rate** creation page appears.
3. Specify the **Name** of the progress rate.
4. Specify the **Updated Progress Percentage** and add a percentage **Comment**, if required.
5. Verify the **Progress Date**.
6. Specify the **Progress Assessment**:
   - Delayed
   - On Time
7. In the progress rate properties page, click **OK**.
   The progress rate appears in the list.

   The **Last Progress Percentage** and **Last Progress Percentage Comment** fields are updated.

Using a steering calendar

Creating a steering calendar

You can connect a **Steering Calendar** to the action plan so that the action plan responsible user can indicate a progress percentage at dates defined in this calendar. A message is sent to the user on these dates.

> ☛ *For more details on managing steering calendars, see the technical article **HOPEX Studio - Steering calendar**.*

To create a steering calendar for an action plan:

1. Open the properties of an action plan.

2. In the **Characteristics** section, click the arrow at the right of the **Steering Calendar** field.
3. Select **Create a steering calendar**.
   The steering calendar creation page appears.
4. Specify the **Name** of the steering calendar.
5. In the **Steering Calendar Type** field, leave the default value "Action Plan".
6. In the **Scheduler Configuration** field, leave the default value "Steering Calendar - Configuration scheduler".
7. In the **Reminder** field, leave the default value "Steering Calendar - Emailing SchedulerJob".
8. Click **OK**.
   You must then create Steering Dates.

Creating steering dates

📖 *A steering date is a date defined in a steering calendar on which a reminder will be sent to the person responsible for an element. This can be an initial date, reminder date or final due date.*

To create a steering date for an existing steering calendar:

1. Open the properties of the steering calendar that interests you.
2. In the **Steering Date** section, click **New**.
   The new steering date appears in the list.

To define steering date characteristics:

1. Open the steering date properties dialog box and select the **Characteristics** tab.
2. Specify the **Name** of the date, to enable its reuse in another steering calendar if required.
3. Specify the **Date Type**.
   - "Initial" - to signify start of an action plan
   - "Remind" - to remind the responsible user of progress rate update
   - "Last" - to signify close of an action plan
4. Specify messages that will be addressed as notification and as E_mail.
   You must then plan the dates of actions execution.

To schedule a steering date:

- Open the steering date properties dialog box and select the **Scheduling** tab.
  You must define the **Start date** (absolute ou Relative) and the **Recurrence Type**.

  ☛ *The start hour is defined in **UTC** format.*

  - The **Start date** may be specified by **Start date (absolute)** or by **Relative Date**.

    ☛ *The **Relative Date** is defined related to the **Effective Begin Date** of the action plan.*

  - The **Recurrence Type** defines the frequency at which reminders are sent: daily, weekly, monthly, once only.

    ☛ *For details on scheduler configuration, see "Scheduling" chapter in the **HOPEX Studio - Steering calendar** technical article*

ACTION PLAN FOLLOW-UP REPORTS

Dynamic reports enable repository data analysis according to different perspectives.

To get a more detailed view of the information regarding the action plans, you can use the Drill-Down Analyses facilities.

☛ *For more details, see the **MEGA Common Features** guide, chapter "Launching Drill-Down Analyses (Instant Reports).*

Accessing Action Plan Standard Reports

To generate an action plan follow-up report:

1. Select **Action Plans > Action Plan Reports > Action Plan Follow-Up**.
2. Specify:
   - the action plans concerned.
   - the period, defined by begin date and end date.
3. Click **Calculate**.

Action plan reports enable a user to plan his/her action plans and follow their progress. Proposed action plan report types are:

- "Action Plan Follow-Up", page 25
- "Action Plan Gantt Chart", page 26
- "Action Plan Progress", page 26

Action Plan Follow-Up

This report presents distribution of action plans according to criteria such as priorities or categories.

To generate a report in the form of action plan follow-up:

- Select **Action Plans > Reports > Action Plan Follow-Up**.

Report example

The upper part of the report presents distribution of action plans on the following criteria:

- Distribution by priorities
- Distribution by organizational level
- Distribution by status
- Distribution by origin
- Distribution by category
- Distribution by execution

☛ *To obtain a list of action plans making up a sector or a bar chart bar:, click the sector (or bar chart bar) that interests you. For more information, see **MEGA Common Features**.*

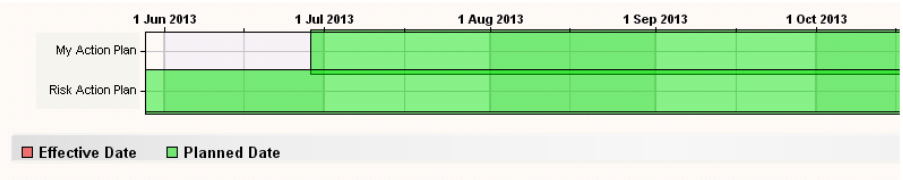
Action Plan Gantt Chart

This report enables comparison of action plan begin and end dates defined in parameters.

☛ *For more details, see "Milestones", page 18.*

To generate a report in the form of a Gantt chart:

❱ Select **Action Plans > Reports > Action Plan Gantt**.



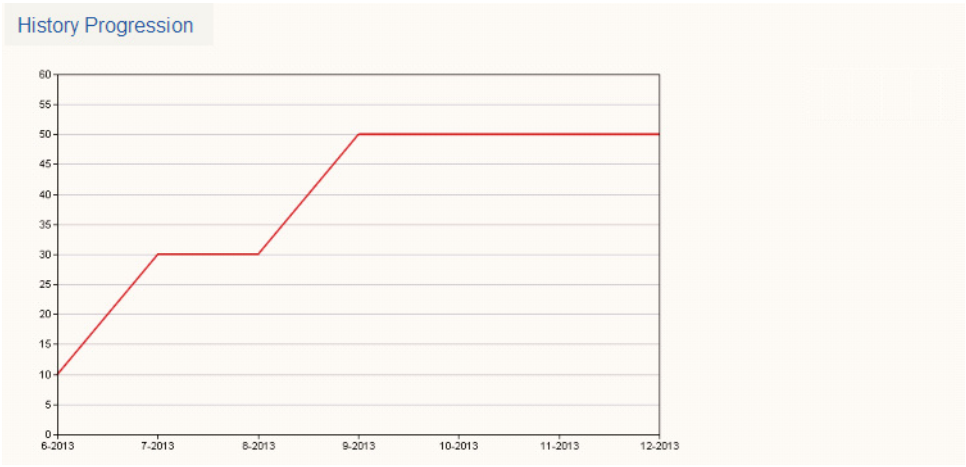
Action Plan Progress

This report enables follow-up of progress of action plans defined in parameters. Action plan progress is defined by responsible users.

☛ *For more details, see "Managing Actions", page 20.*

To generate a report in the form of a Gantt chart:

- Select **Action Plans > Reports > Action Plan Progress**.



APPENDICES

This chapter presents:

ACTION PLAN WORKFLOWS

Two workflows are proposed to manage different steps of an action plan:

- A **Bottom-Up** workflow, which corresponds to the case where an action plan is created by any user. The new action plan must then be validated by an approver before being implemented.
- A **Top-Down** workflow, which corresponds to the case where an action plan is created by an "action plan manager". The validation step of the new action plan is not necessary in this case.

With the exception of the action plan validation step, these two workflows are identical. The **Bottom-Up** workflow is described here, since it is more comprehensive.

Action Plan Progress Steps Defined as Bottom-Up

Creating the action plan

When the action plan is created, it is in "To submit" state.

By default, the action plan creator is the action plan **Owner**. Having specified the characteristics of a new action plan, the creator can:

- **Propose** the action plan.
  In this case, the user defined as "Approver" receives a notification mail, and the new action plan appears with status "To Begin" in his/her tasks list.

Preparing the action plan

The action plan "Approver" user can:

- **Validate** the action plan, which then takes status ""In Progress". Actions can then be created. For more details, see "Managing Actions", page 20.
- **Cancel** the action plan which takes status "Canceled".

Executing the action plan

Having executed actions relating to the action plan, the "Owner" can:

- **Terminate** the action plan which takes status "Closed". To do this, all action plan actions must be terminated. For more details, see "Managing Actions", page 20.
  The "Approver" user is notified of the action plan termination request.

Closing the action plan

After having consulted action plan follow-up reports, the "Approver" user can:

- **Close** the action plan, which retains "Closed" status and disappears from the task lists of creator, approver and owner.
- **Reopen**, for additional actions. The action plan again takes status "In Progress".

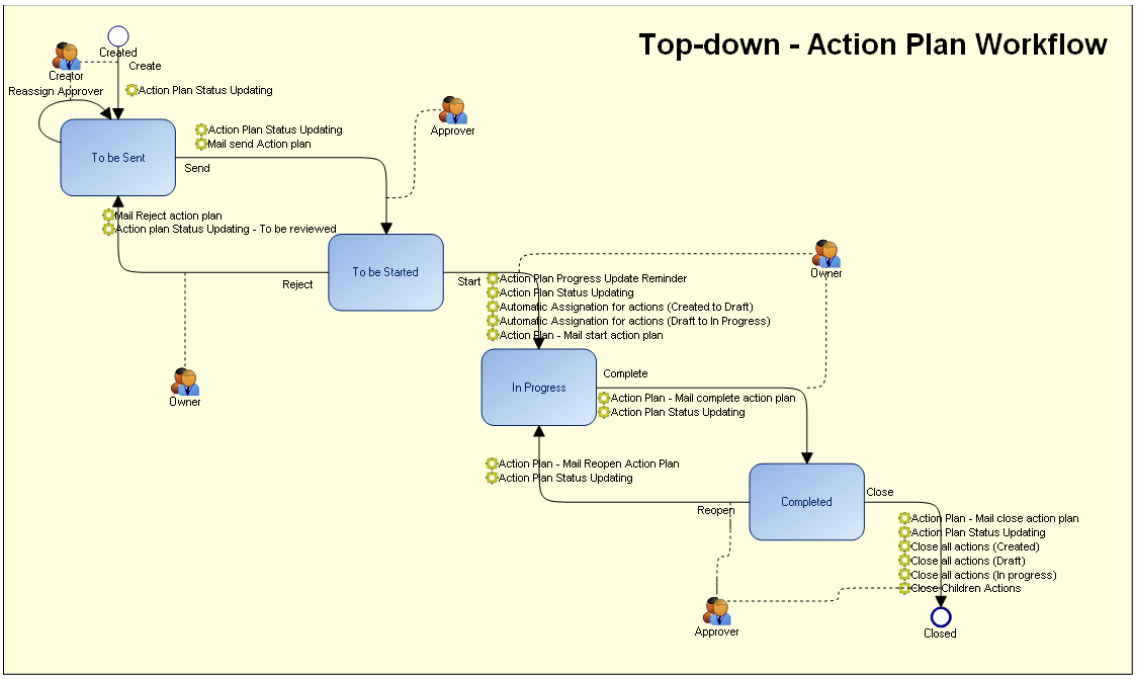
Action Plan Workflows

Steps in the action plan management process are described in "Action Plan Progress Steps Defined as Bottom-Up", page 32.

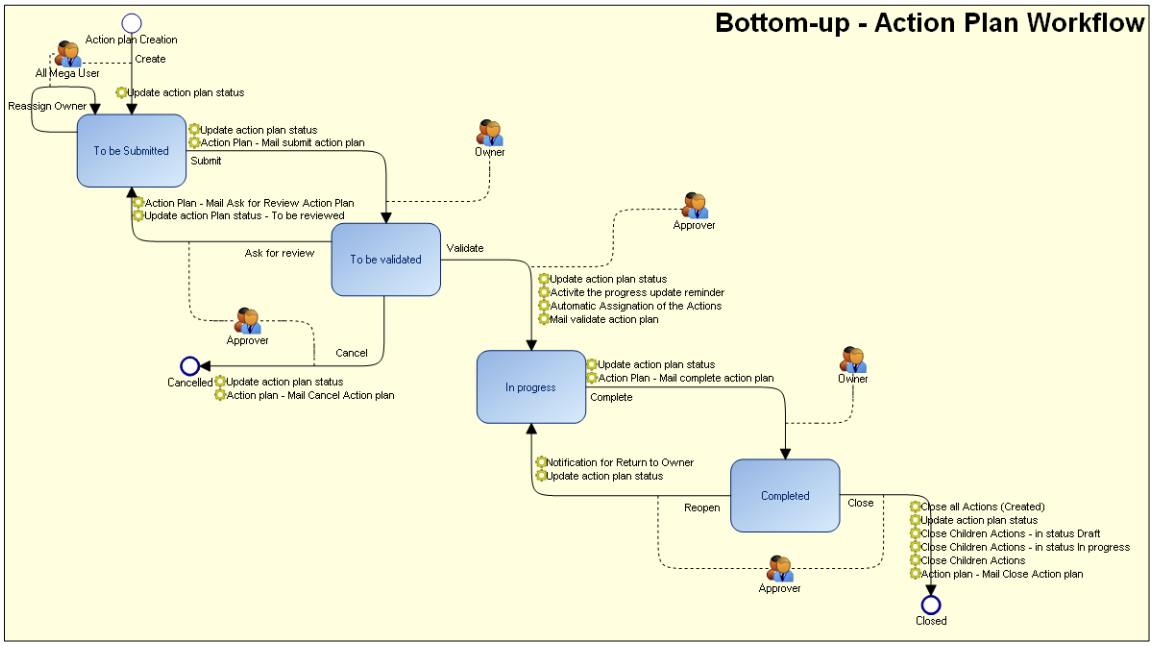
The workflow diagram introduces:

- participants
  - "Creator", who also validates action plan closure
  - "Owner", who is responsible for carrying out actions of the action plan.
  - "Approver", who is responsible for scope covered by the action plan.
- Workflow statuses of the action plan, and planned transitions between statuses.
- Planned notifications on certain transitions.

Top-down action plan workflow



Bottom-up action plan workflow



Action Plan Workflow Mails

Action plan to be validated

From	Creator
To	Approver
Subject	Action plan to validate - [Action plan name]
Content	Dear Sir, Madam, Please validate the action plan submitted by [Action plan creator name] To enter the application and perform your task, click here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action plan to be reviewed

From	Approver
To	Creator
Subject	Action plan to review - [Action plan name]
Content	Dear Sir, Madam, The following action plan must be reviewed - [Action plan name] Please enter the application for details by clicking here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action plan validated

From	Approver
To	Owner
Subject	Action plan validated - [Action plan name]
Content	Dear Sir, Madam, The action plan [Action plan name] is validated. Thank you for your collaboration Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Close action plan

From	Owner
To	Approver
Subject	Action plan to close - [Action plan name]
Content	Dear Sir, Madam, The following action plan has been completed for closure [Action plan name]. Please enter the application for details by clicking here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action Plan Reopened

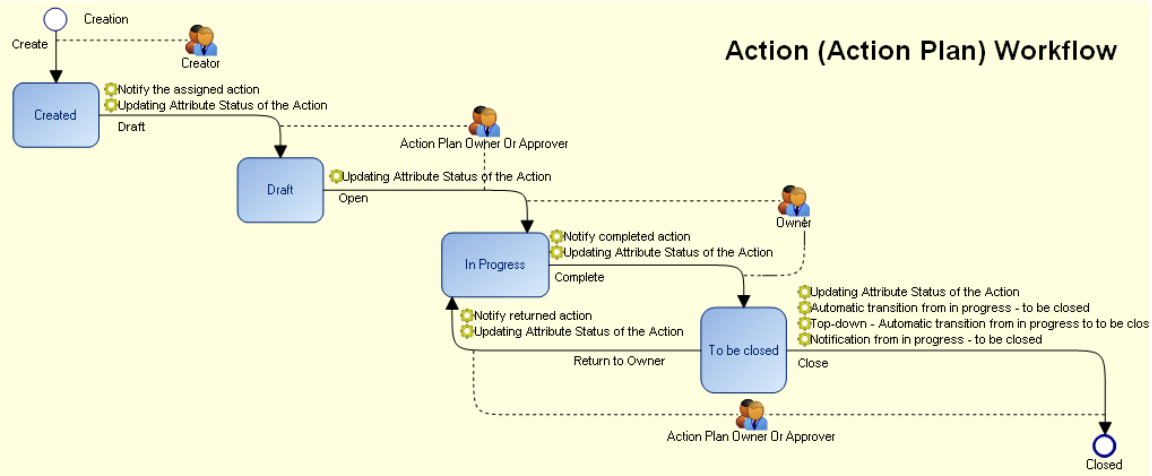
From	Approver
To	Owner
Subject	Action Plan reopened - [Action plan name]
Content	Dear Sir, Madam, The following action plan must be re-completed [Action plan name]. Please enter the application for details by clicking here. Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

Action plan closed

From	Approver
To	Owner
Subject	Action plan Closed - [Action plan name]
Content	Dear Sir, Madam, The action plan [Action plan name] has been closed. Thank you for your collaboration Comment: [Comment] This e-mail has been sent automatically by MEGA HOPEX.

ACTION WORKFLOW

Action Workflow Steps



Action Workflow Notifications

No mail is provided for actions, only notifications are sent by the creator to the responsible user:

- when the action is assigned to a user,
- when the action is closed.