CLICK THE TEXT OF A STEP IN THE MODEL PROJECT MANAGEMENT CHART TO GO DIRECTLY TO THE CORRESPONDING SECTION (A COMPLETE SUMMARY IS BELOW).

Prepare

- Project
- Members
- Referentials
- Videos
- Scenarios

Analyze

- Breaking down
- Creation / Optimization
- Comparison
- Sum up

Validate

- Breaking down
- Creation
- Comparison
- Sum up

Administration:

Referentials

- Standards
- Projects

Directory

Backup/Restore

Activation

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CLICK A TITLE TO ACCESS THE SECTION DIRECTLY.

AGENDA

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CLICK A TITLE TO ACCESS DIRECTLYTHE SECTION.

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1 PREFACE

1.1 WELCOME

Dear customer or dear user,

We thank you for using KL²®, our video driven process analysis software solution for optimization and training purposes.

Based on our experience acquired on the field, we designed the KL²® methodology & software with our customers to help them improve significantly their OEE, WIP, process flexibility, working conditions, safety and know-how capitalization & sharing.

KL²® software efficiently allows you to:

- Capture the reality with wide-angle HD camcorder glasses
- Visually translate the current process on the field
- Build scenarios and define the target process
- Create immediately training supports and qualification materials based on the video for Production, Maintenance, Safety, ...

We hope that KL²® will meet your expectations.

Your suggestions and requirements are important to us. Please contact us at: KL2@k-process.com

K-process Team

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1.2 LAUNCH KL²®

At start of KL²®, an authentication window is automatically displayed:

NOTE:
This dialog window displays the license type (and remaining days if rental version) and the KL²® version number.
KL²® User enters his "user name" and his "password" allocated by an administrator of KL²®.

Key points:	Reason for key points :
• Enter login and password Default Administrator account is : **ID = admin / Password = admin**	• To access to a secured environment

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1.3 SCOPE OF THE USER MANUAL

This user manual is meant to answer questions about the use of KL²®. It is not a training support on improvement methodology using KL²®.
For any information about training, please contact K-process or a certified partner.

Most of user manual parts are about answering the question “How to do something”.
They start with a summary including:

- why doing something,
- what are the prerequisites,
- what are the important steps, the key points and the reasons for these key points. In this table:
  - white background rows are also in the details to explain “How to”
  - greyed background rows are more methodological points.
  For example:

Important steps		Key points		Reasons for key points
1	Use “Analyze / Optimization” tab	1.1	Turn view filter to I / E / D in “Optimization” tab	To be able to change task types from I to E or D or reduce their duration in “Improvement” tab.
2	Consider organizational optimization first	2.1	Some of the tasks must be deleted	Some tasks are useless (without any added value)
		2.2	For SMED projects only : Some of the tasks can be moved externally (before or after the changeover) by a better organization	To reduce the change over time (internal time costs more than external)

For a better navigation in the help file, you can activate «page navigation arrows»  in Adobe Reader:

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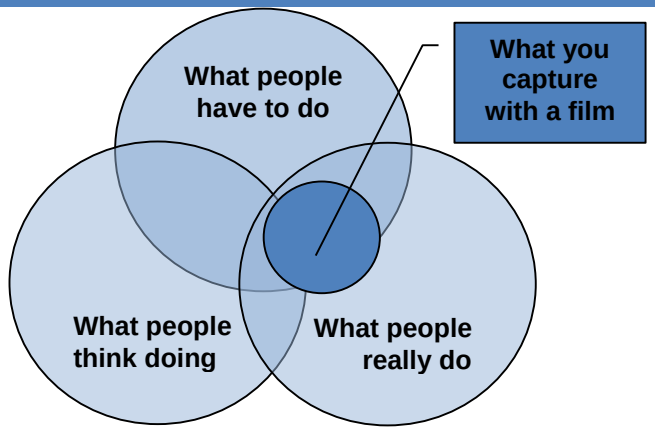
2 HOW TO FILM A PROCESS?

Why film a process?

- **To capture a part of reality**



Pre-requisite

Organizational

- Film experts (and rewarded as experts)
- Identify resources which are involved in the process
- 1 resource = 1 film
- Identify the level of detail to collect (operator movement and/or working organization)
- Inform people on the ground including people around the process who will be potentially filmed as well
- Train all cameramen including operators filming themselves with camcorder glasses
- Decide in advance who will film which resource
- Identify potential safety issues (ATEX area, stairs, pallets, etc.)

Knowledge

- How to use your camera: night shot, backlight, zoom, etc.
- To know the process (at least “what people have to do”)

Technical

- Make sure camera is ready : battery full, memory card empty or big enough regarding process duration

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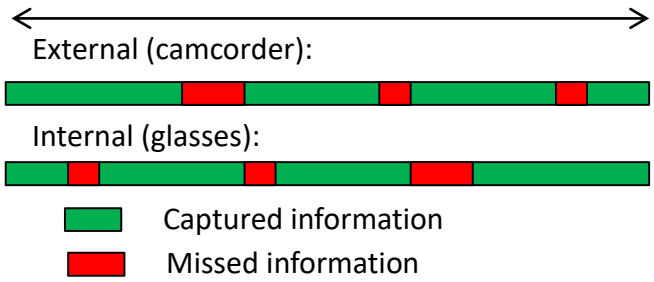
What :(summary)

Important steps		Key points		Reasons for key points
1	Before filming	1.1	Select the best way to film the resources : external vs internal PoV (camcorder or camera on glasses) Filmed process duration  	To avoid missing sequences : e.g. there's no place for the operator and the cameraman (= you cannot use a camcorder) or the operator cannot see what he does inside a machine (= you cannot use glasses)
		1.2	Be on site before the supposed beginning time of the process you want to film and start filming in advance.	To avoid missing the real beginning and preparation externalized tasks. To have time to be well prepared (lighting, place from which to film, etc.)
2	While filming	2.1	Not too close / Not too far (distance depends on the level of detail of the analysis and process duration : the shorter, the closer because you will then certainly try to decompose hands activity)	Too close: we miss the global context and risk to lose triggers that explain why the resource does something. Too far: we don't see, so we don't understand what the resource does.
		2.2	Do not speak to the persons being filmed	To avoid to influence them too much
		2.3	Avoid filming faces (or use camera on glasses)	We want to analyze what people do (and not identify them)

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Important steps		Key points		Reasons for key points
2	While filming (continued)	2.4	Do not try to film the details of control panels	Use a specific software to capture your screen. Risk to loose part of the action when person will leave the control panel station (time to zoom out too long)
		2.5	Stop filming only when actor is out of process area	Risk to lose end of the process (e.g. process fine-tuning in case of changeover) and externalized post process tasks (e.g. cleaning, administrative tasks, etc.)
		2.6	Avoid zooming	Risk to lose information while focusing on one point of the activity Not very friendly to debrief during the analysis phase
3	After filming	3.1	Make backup of film asap with a clear name like process name; filming date, etc.	To avoid loss of video files or mix of files
		3.2	Make a video feedback quickly (if possible during the same day) to filmed persons.	To avoid stress increasing of filmed persons and not to forget details about what happened.

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2.1 VIDEO AND AUDIO FORMATS BY DEFAULT IN KL²®

WMV (WMV9 VC-1), AVI, MP4, MOV (files from the camcorder glasses), MTS, M2TS, TS, FLV & MPG
If your video files are not immediately compatible, you need to transcode them (not recommended because it takes lots of time).

Contact us for more information or support before transcoding your videos.

2.2 KEY ADVANTAGES TO USE CAMCORDER GLASSES OR MINI CAMCORDERS INSTEAD OF CLASSIC CAMCORDER

- By filming themselves, operators:
    - Are more motivated as soon as the project begins.
    - Don’t need a dedicated cameraman.
    - Are less bothered by the presence of an observer.
- **HD** and **wide-angle** allow a clear task visualization, focused on real operator work, on his “hands”.
- With an **external battery**, the maximum film duration is about 5 hours (32Go in HD)
- The .MOV format is **DIRECTLY and IMMEDIATELY compatible with KL²®**. The long and fastidious transcoding is not necessary.
- **Removable glasses** (from the glasses) allow to film with PPE or normal glasses.

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3 HOW TO PREPARE A PROJECT?

Why prepare a project?

- **The project is the entry point in KL²® which contains associated members, referentials, videos and scenarios.**

Pre-requisite

Organizational

- Have done project Kick off

Knowledge

- Be trained with KL²®

Technical

- Have administration rights in KL²®

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What :(summary)

Important steps		Key points		Reasons for key points
1	Create the project	1.1	Create a new project or import an existing template (= empty project with preset referentials) OR start from a frozen Validation scenario from another project.	A way to standardize referentials and to save time
		1.2	Choose only one goal	Risk to reach none
		1.3	Select an “Accuracy” adapted to the resources you will analyze	It has a direct impact on the video player accuracy, step by step pace and display of decimals 1/10th is good for process with a duration of few minutes.
2	Associate members (KL²® users)	2.1	Only if the PC is shared	To prevent data loss
3	Select and configure project referentials and free fields	3.1	Activate / Deactivate referentials and free fields.	To avoid displaying useless information in KL²®.
		3.2	For each referential, choose if it is possible: • To select several elements for a same task • To enter a quantity par element • To keep selected elements for the next task	To save time.
4	Associate videos	4.1	Don’t name the people but the jobs	Waste and error mustn’t be associated to people
5	Create initial scenario	5.1	There is only one Initial scenario per project	To avoid starting optimization at this stage.

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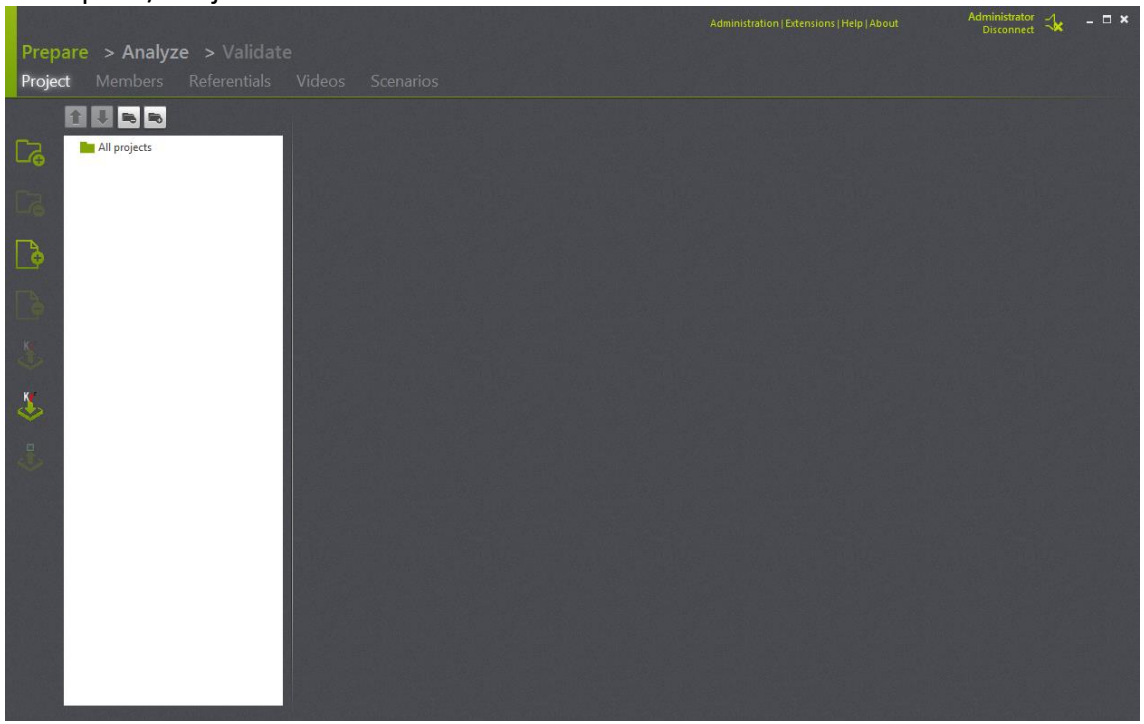
3.1 CREATE THE PROJECT

In Prepare / Project tab:



- To manage a project tree:

  Click  and  to create and delete folders

  Sort sub-folders and project with both buttons 

   buttons allow extending or collapsing the entire tree

  NOTE:

  - A confirmation is required to delete something

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- Only empty folders can be deleted

- To "Create" a new project:

  Click on  .

Key points:	Reason for key points :
• Choose only one goal (you can't choose several)	• To avoid to reach none)
• Select an accuracy adapted to the resources you will analyze.	It has a direct impact on the video player accuracy, step by step pace and display of decimals • 1/10th is good for process with a duration of few minutes.

- To "Delete" a project (stored in the SQL database):

  Selecting project and then click on  .

  NOTE:

  - A confirmation is required.
  - The video files are not deleted.

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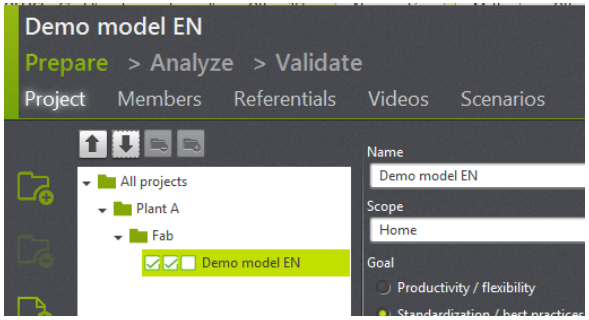
3.2 "OPEN" AN EXISTING PROJECT

In Prepare / Project tab:

- Click on project name and then on 

button in lower right corner
OR
Double click on project name.
The project name is displayed in the header (e.g. “Demo model EN” below).



Note:

- Before opening a project, the user can visualize project information as well as a summary of created scenarios.
- The icon before each project informs about the project status:
  - New project (just created or initial scenario in progress)
  - Initial scenario frozen
  - At least one target scenario
  - At least one frozen target scenario
  - One validation scenario
  - One frozen validation scenario

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3.3 IMPORT AN EXISTING TEMPLATE (PRESET PROJECT)

See "How to export or import a project"

3.4 STARTING FROM A FROZEN SCENARIO OF ANOTHER PROJECT

A KL²® Administrator or Analyst can create an Initial scenario in a new project from a **frozen** scenario of another project as a Baseline.

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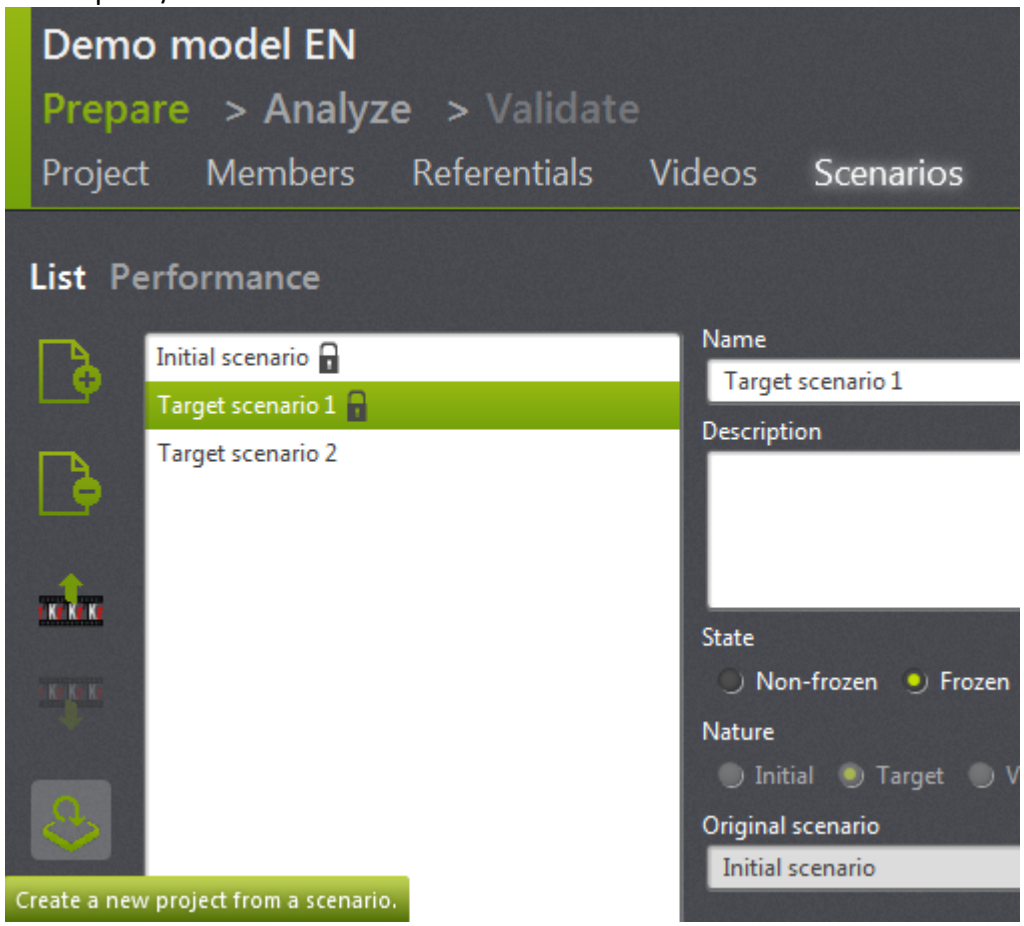
In “Prepare / Scenarios” tab:



1. Select the **frozen** scenario to convert in an Initial scenario in a new project.
2. Click 

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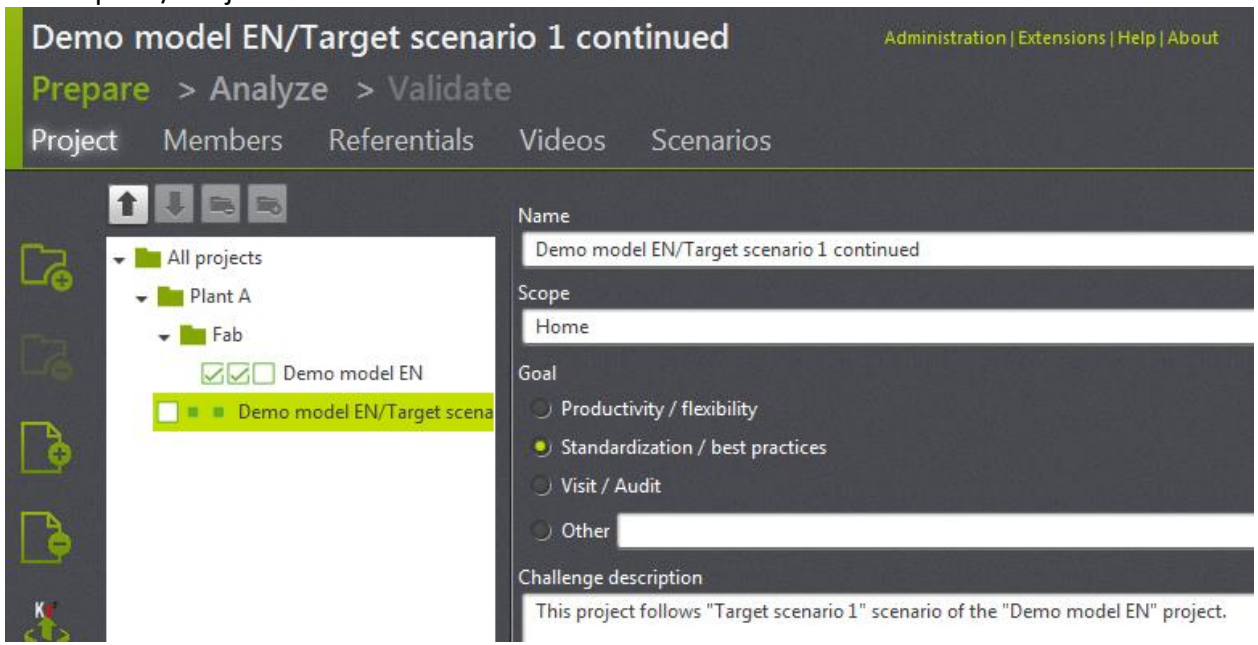
In “Prepare / Project” tab:



A new project named “original project name + continued” is created.
This project has an Initial scenario which is identical to the **frozen** scenario of the original project.

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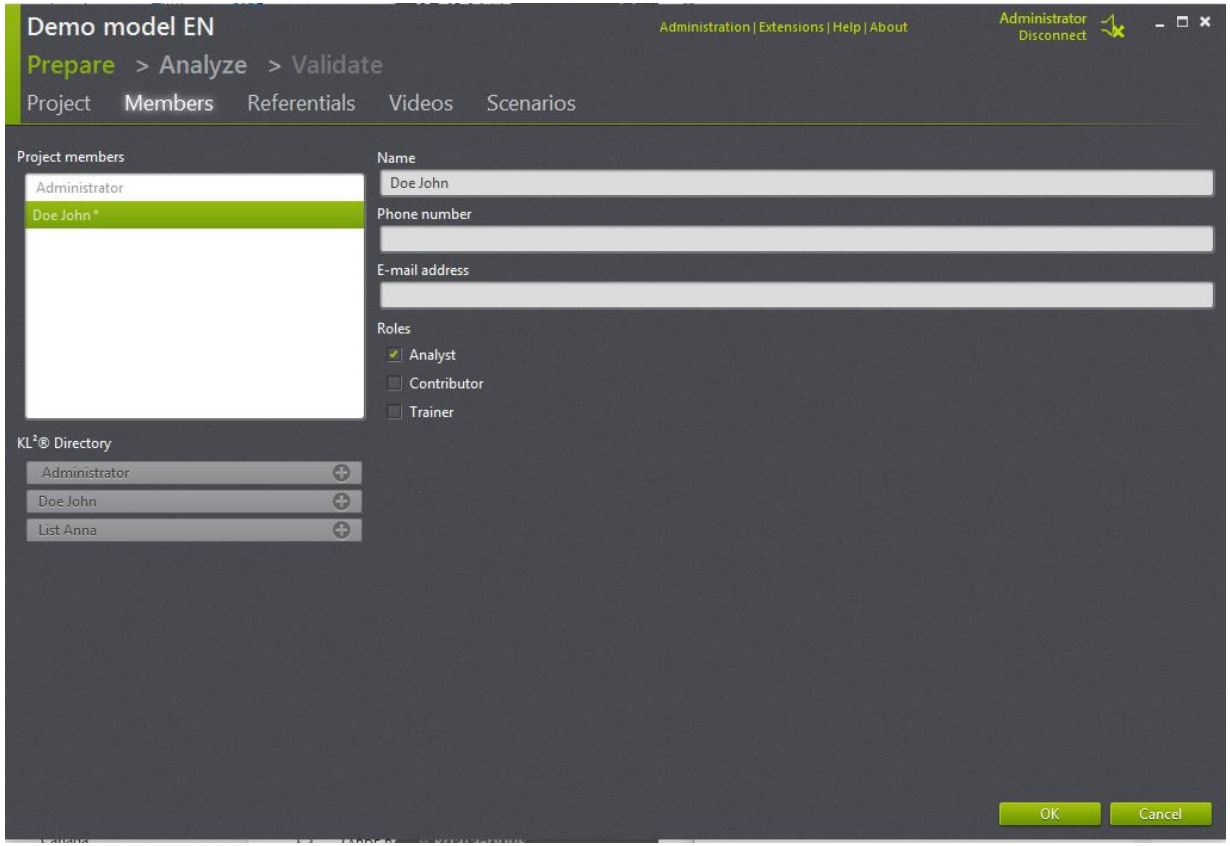
3.5 ASSOCIATE MEMBERS

Key points:	Reason for key points :
• To associate members (with different roles) to a project is useful only if the KL²® PC is shared between different KL²® users	• To prevent data loss

In Prepare / Members tab:
The administrator of KL²® who created the project is by default member of the working group.

The administrator of KL²® is the only one able to:

- Add members:
  1. Click on available users in KL²® directory
  2. Change role of new member (except for Administrator - a default role is set to what has been defined in the Administration/Directory tab)
  3. Confirm with "Ok ":



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- To delete members of the project:
  1. Mouse over name of member to be deleted
  2. Click on 
  3. Confirm in dialog box.

NOTE:

- Fields Name, Telephone number and e-mail Address are only editable in the Administration - Directory section.

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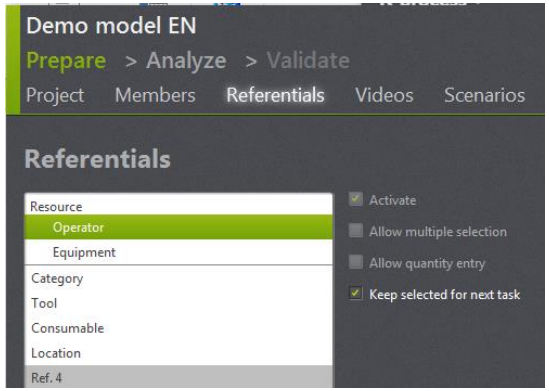
3.6 SET UP PROJECT REFERENTIALS AND FREE FIELDS

In “Prepare / Referentials” tab, a KL²® administrator or a KL²® analyst can activate / deactivate and set up referentials and free fields that he wants to use in the project.

A referential can:

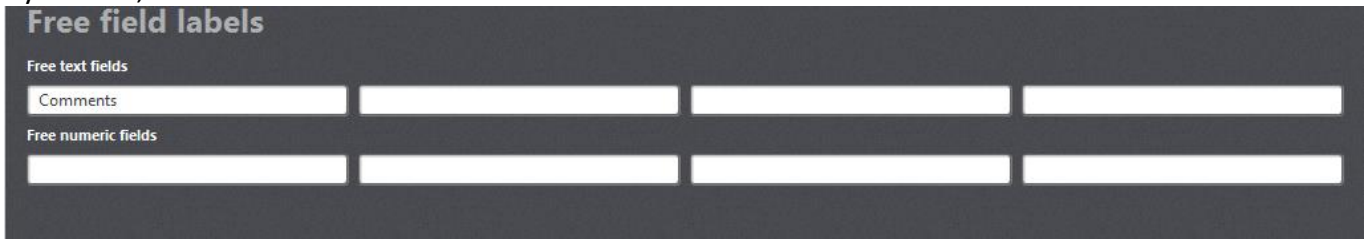


- Be activated or deactivated (it is displayed / hidden in other KL²® screens. Il this example: “Ref 4” to “Ref 7” are inactive)
- Allow multiple selections (e.g., for the referential Tool: an operator can use a screwdriver and a key during the same task).
- Allow quantity entry (e.g., for the referential Consumable: KL²® user can enter the number of liters used by an operator who uses water)
- Keep an element selected for the next task (e.g. for “Location”: it is quite rare that an operator moves from one place to another at each task)

Free text or numerical fields are active if the label is not empty.

NOTE:

- By default, the first free text field is activated with the label “Comments”:



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- By default, both resource referentials (operator and equipment) and “Category”:
  - Are active.
  - Do not allow multiple selections and quantity entry.
- By default, “Category” does not allow to keep an element selected for the next task (creating a new task is generally linked to changing of category)

Key points	Reasons for key points
• **Activate / Deactivate referentials and free fields.**	• To avoid displaying useless information in KL²®.
For each referential, choose if it is possible: • **To select several elements for a same task** • **To enter a quantity par element** • **To keep selected elements for the next task**	• To save time.

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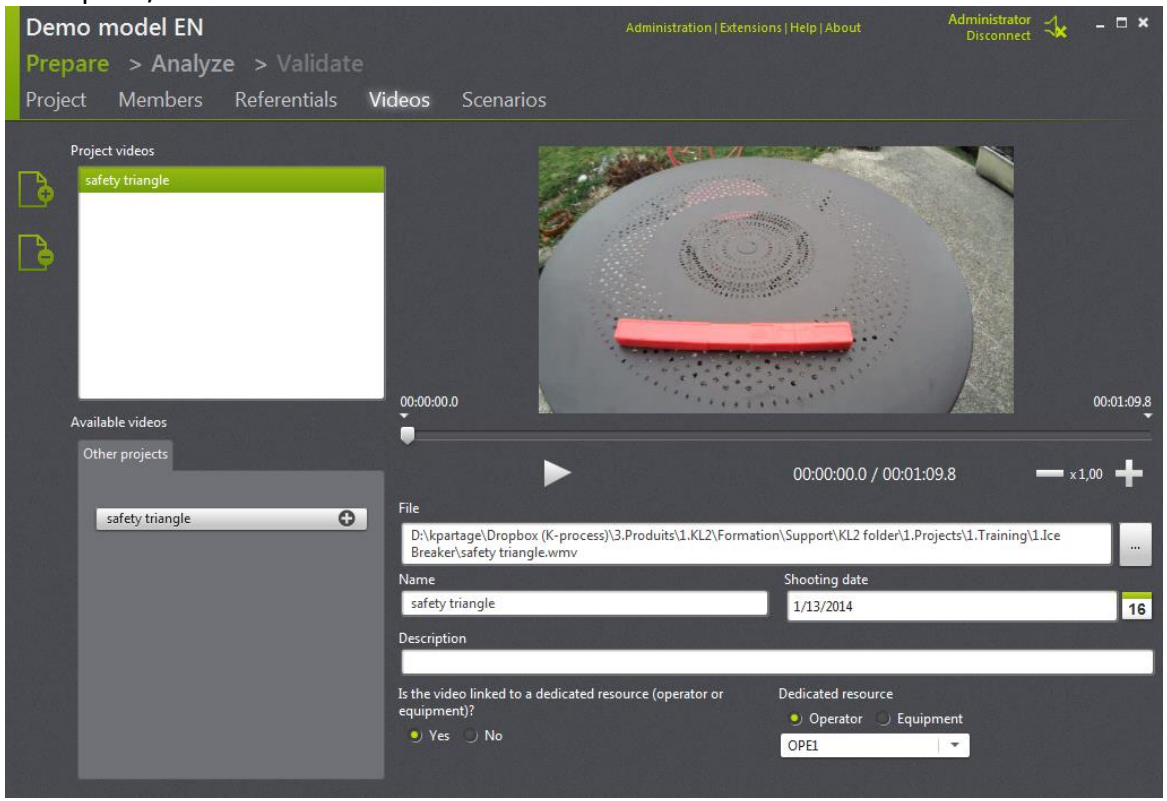
3.7 ASSOCIATE VIDEOS

In Prepare / Videos tab:



- To add a new video to an on-going project, click on  to select a video file (list of available formats is accessible in chapter 2.1).

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NOTE:

- The user must at least give information if the video is linked to a dedicated resource (operator or equipment):
  - YES (Monitoring of a **resource** in the workshop) requires to:
    - specify if resource is an operator or an equipment
    - enter the function name of the resource
  - NO (Monitoring of a **product** in the workshop)

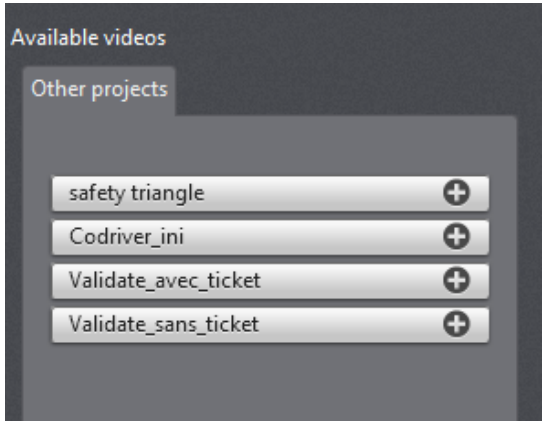
Key points:	Reason for key points :
• Don't name the people but the jobs / titles when naming operator resources.	• Waste and error mustn't be associated to people.

NOTE:

- The user can read video file to validate its selection before import:

 Play-Pause

- The user can use a video that was already used in another project by clicking on the video name in the list of «available Videos / Other projects»:



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- The user can:
  - Change the name of video.
  - Specify film date.
  - Add a description or comments.

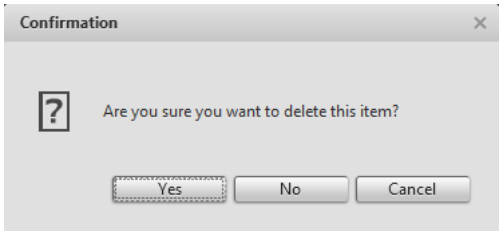
- To delete a video of project:

  1. Choose video to be deleted

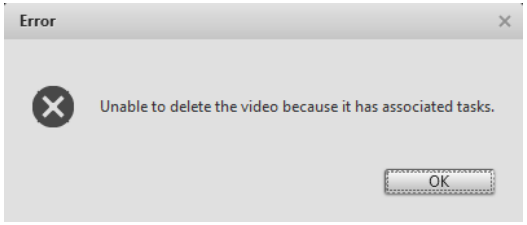
  2. Click 

  NOTE:

  - A confirmation is requested before deletion.



  - A video in use in a project cannot be deleted.



- To access / change information of a video in current project: click on the video.

  NOTE:

  - Any modification requires validation with "Ok ".

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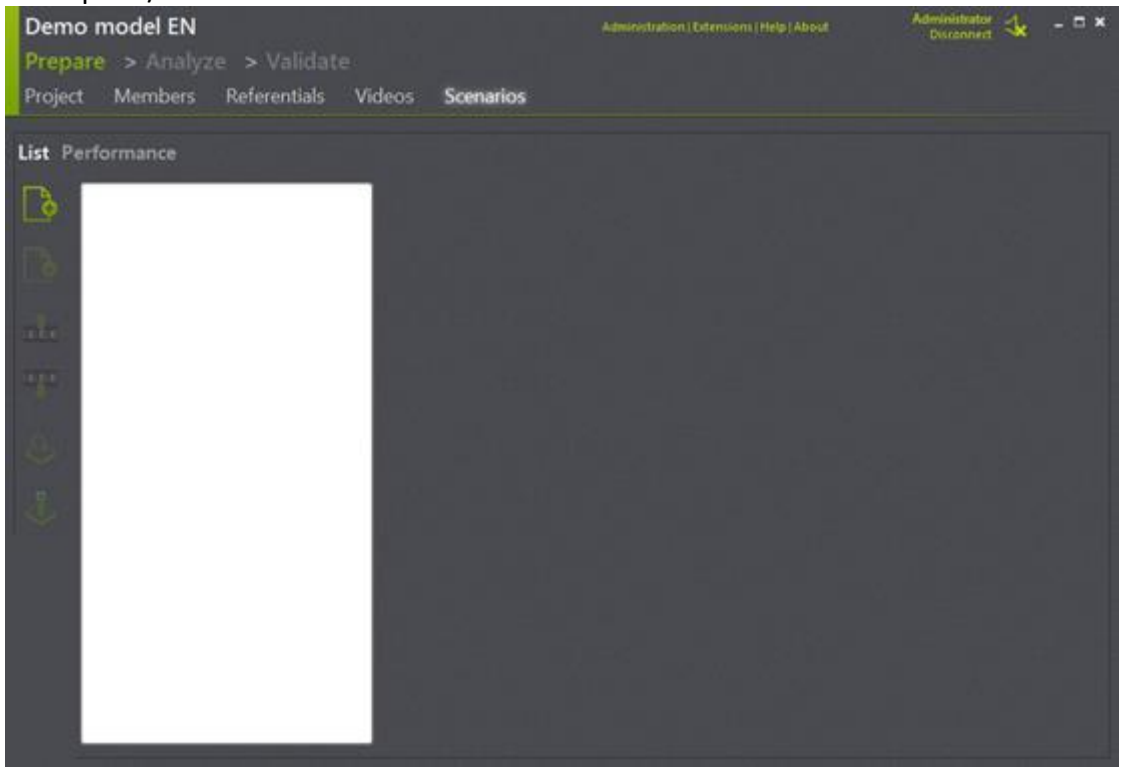
3.8 CREATE (INITIAL) SCENARIO

In Prepare / Scenarios tab:



- To add the first scenario (Initial scenario), click on 

  NOTE:
  - The user can:
    - Change default name of a scenario
    - Add / change a description
    - Choose to show performances of this scenario in the summary
    - Freeze or not a scenario to go to next phase

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Key points:	Reason for key points :
• There is only one Initial scenario per project.	• To avoid to start optimization at this stage.

- To delete a project scenario:
  1. Select the scenario to be deleted
  2. Click 

  NOTE:
  - A confirmation is requested before deletion.
  - A parent scenario cannot be deleted (a message will be displayed if the user tries to delete it)

- To access or modify information of current project non-frozen scenario, click on the scenario.

NOTE:

- Any modification requires a validation with “Ok”

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4 HOW TO BREAK DOWN A PROCESS?

Why break down a process?

- **To identify all tasks made by all resources consistently with synchronization constraints**

Pre-requisite

Organizational

- Details of chained and synchronized process tasks must be seen with work group (A macro vision can be done alone by an analyst)
- Include in work group people who know the process and it's inter resources constraints

Knowledge

- How to break down a process (lean knowledge)

Technical

- To have associated videos to the project
- To have created a scenario

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What: (summary)

Important steps		Key points		Reasons for key points
1	Reminders from “Prepare” phase	1.1	Identify the beginning and the end of the process	To be focused on the analyzed process
		1.2	List all resources (operators or equipments) involved in the process	Do not forget resources potentially on the critical path after optimization
		1.3	Identify the main tasks and the main synchronization triggers of the process	To be able to define the critical path
2	Per video or process (if no video) do a macro decomposition	2.1	Name what you have seen (and not what you think you will see next) with a simple and self-explanatory wording like verb + complement (e.g. Unscrew the box)	Not to try to guess what will happen. (If you are sure of what will happen, you can uncheck “Auto pause” option to save time.)
		2.2	Stay high level as much as possible	The more tasks you have the more complex to analyze and the more time you spend
		2.3	Make sure trigger events between resources are documented in KL²®	To be able to construct the process with the real constraints in the next step with Gantt charts
		2.4	Use sub-tasks if necessary instead of several tasks	To keep high level your first level of breaking down (“collapse” function)

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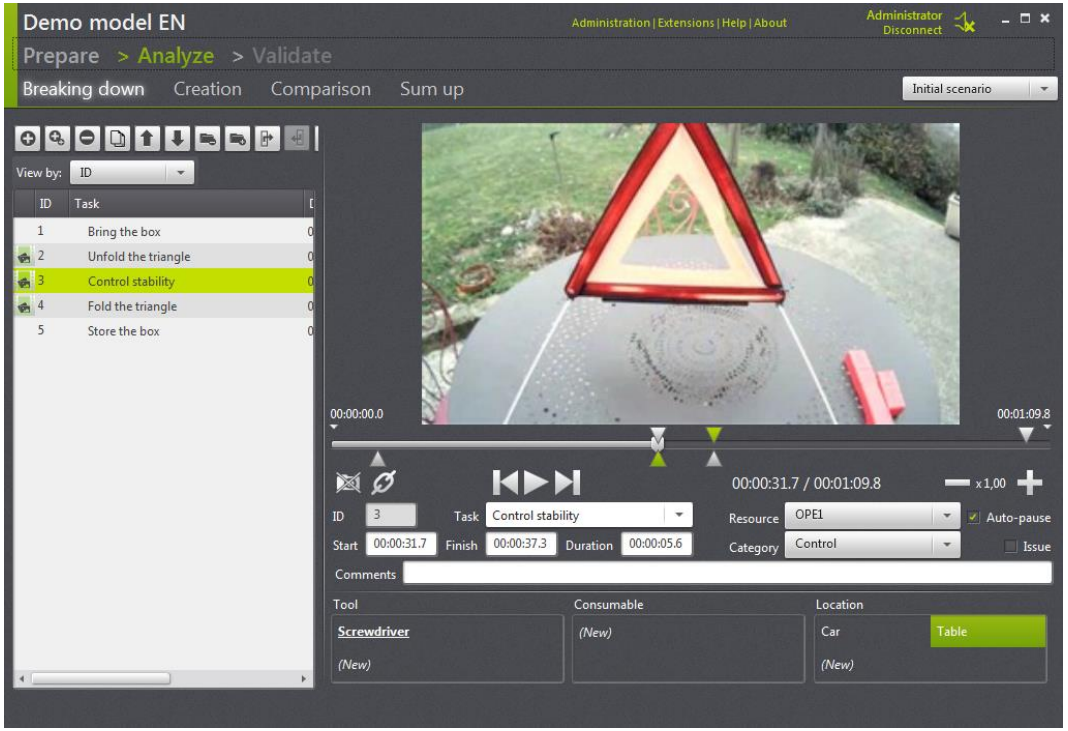
4.1 THE BREAKING DOWN TAB



In the “Breaking down” tab, the user collects all the elementary tasks that are going to constitute the process. Tasks can come from a video or not.
A task is described by:

- A Label
- A time of video start (if video is linked)
- A time of video finish (if video is linked)
- A video duration (if video is linked)
- Referentials items:
  - Category
  - Resource
  - Consumable
  - Location
  - Tool
  - Document
  - Etc.

If a video is linked, the KL²® user can check the box “issue” to indicate a noteworthy gesture, etc. on a given task.

To add a new element to a referential, click on “New” in relevant referential:

NOTE:
Any Category created from a break down has VA (Value Added) as default value.

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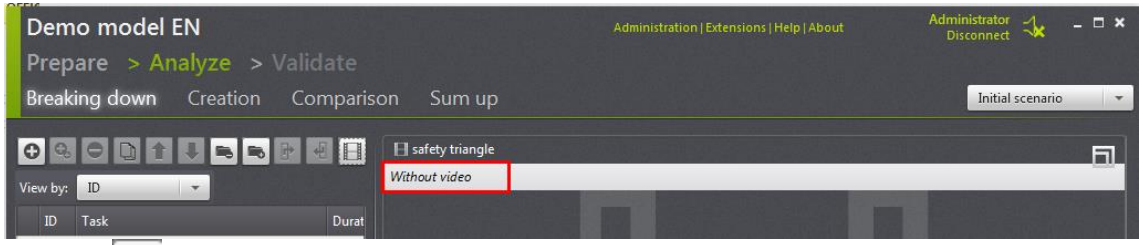
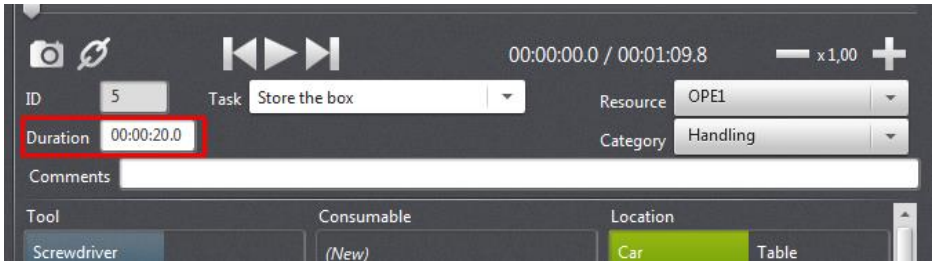
4.2 ADD TASKS WITH NO LINKED VIDEO

1. Choose «Without video»:



2. Click on  (create a new task at the same level) or on  (create a subtask of the selected task).
3. Enter at least:
   - Task Duration



4. Enter (recommended):
   - Task name
   - A resource processing the task
   - A category

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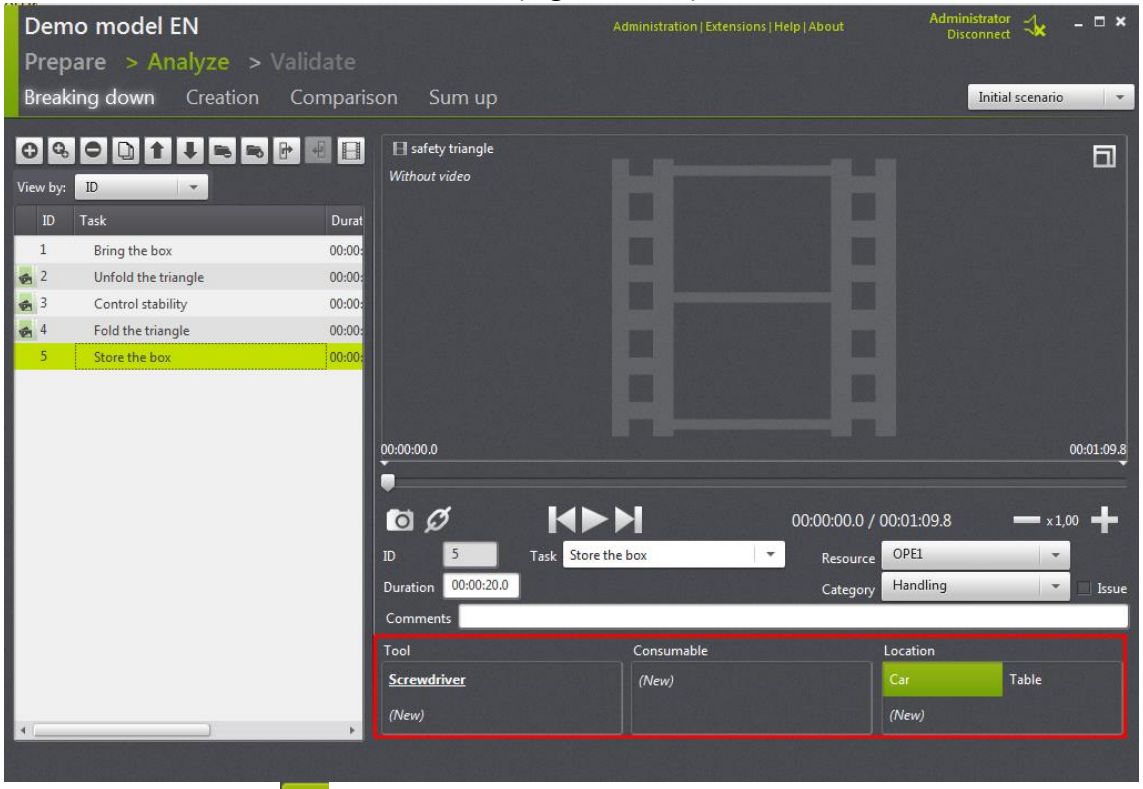
- Referential elements linked to the task (e.g. Location) :



5. Validate with OK or ✓.

NOTE:

- Upon task validation, KL²® automatically creates a new task (equivalent to click on ⊕). To leave the break down mode, click on Cancel or ↩.

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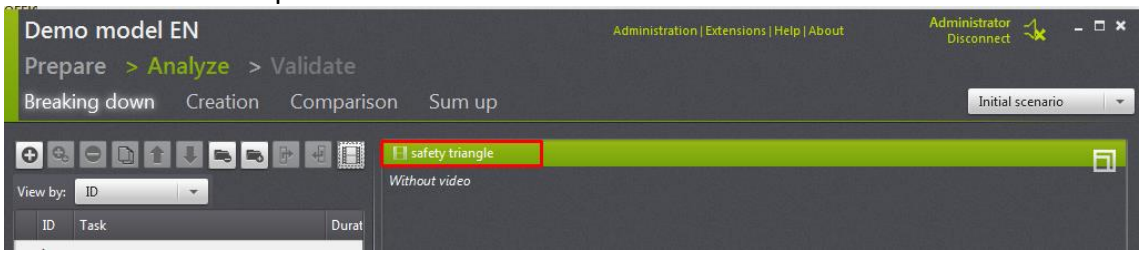
4.3 ADD TASKS WITH LINKED VIDEO

1. Choose video to be split:



2. Position video in pause at the beginning of task with the video player (play-pause, step by step etc.)
3. Click on  (to create a new task at the same level) or click on  (to create a sub task of the selected task).
   KL²® enters the **"Breaking down" mode** and starts playing the video automatically.

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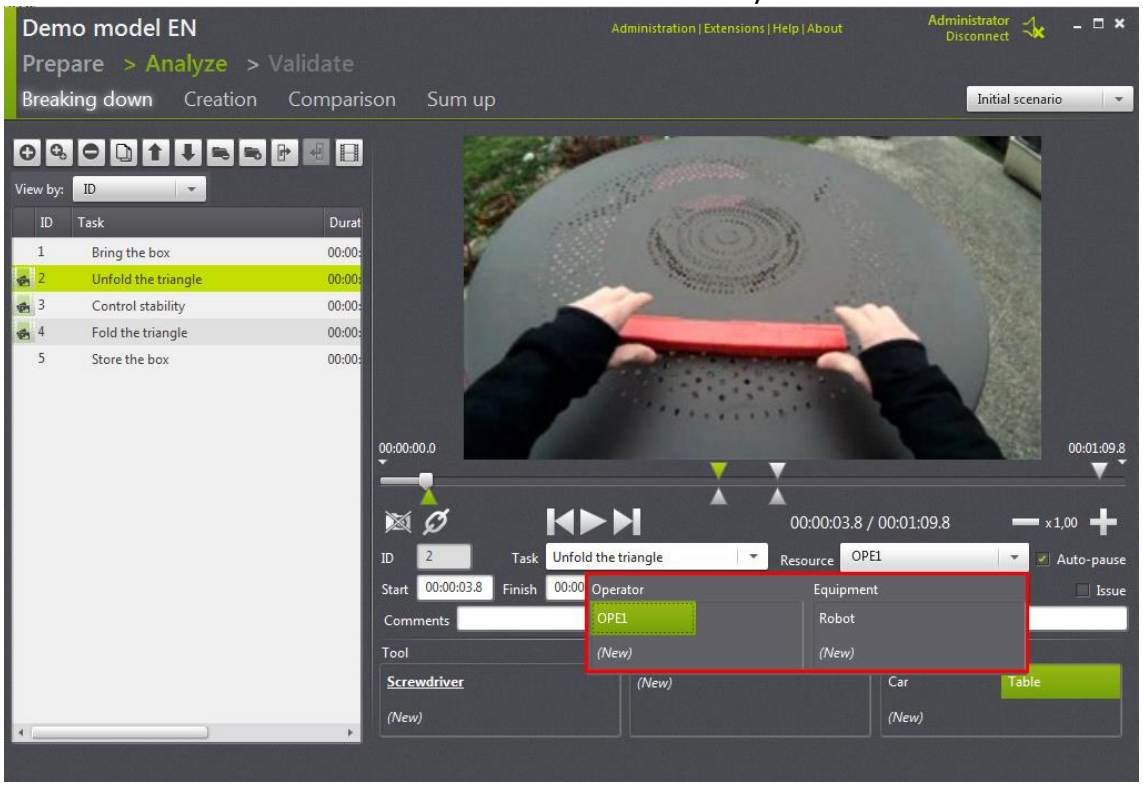
4. Enter:
    - Task label
    - A resource if video is not linked to a dedicated resource by default.



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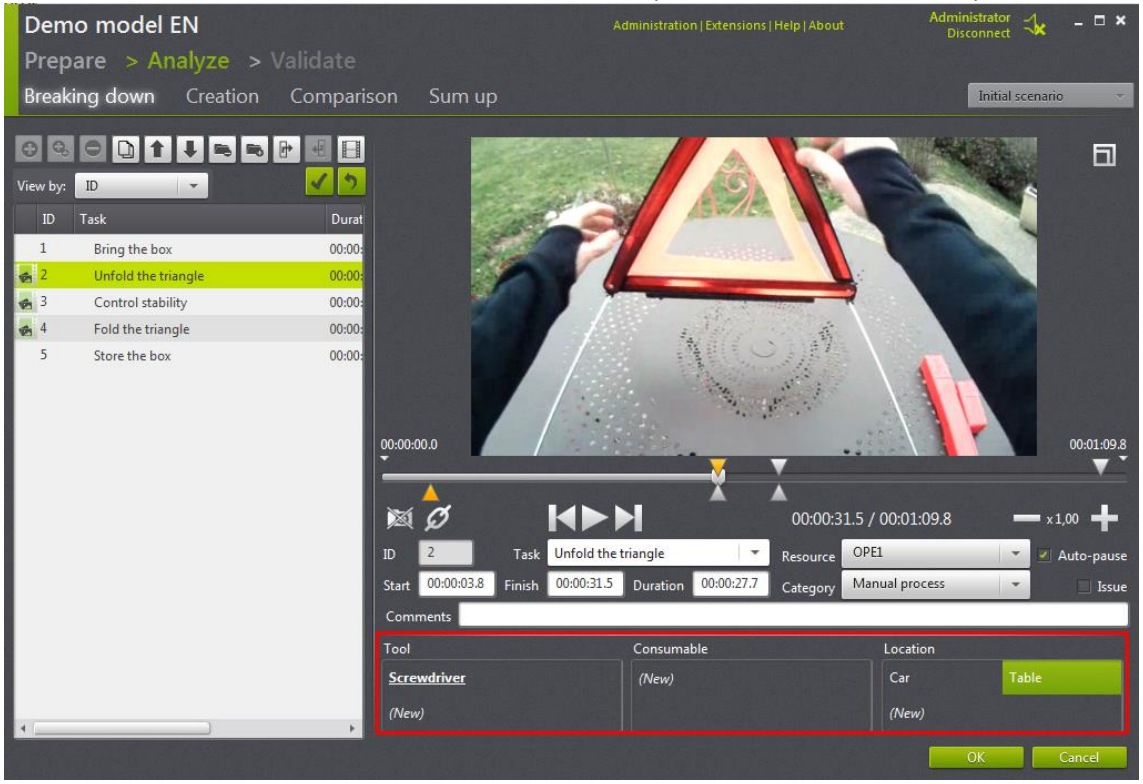
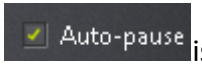
- Referential elements which are linked to the task (tools, consumables, etc.):



NOTE:

- KL²® automatically pauses player as soon as the user presses a key of keyboard if option 

is checked.

5. Validate with 

or  .

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NOTE:

- Upon task validation, KL²® automatically creates a new task (equivalent to click on) and restarts playing the video. To leave the break down mode, click on Cancel or .
- Upon task validation, KL²® automatically saves the first frame of the video sequence as a thumbnail. The icon reminds that a snapshot exists.
- Task start point and finish point can be defined with opposite markers: or "Start" "Finish" fields.
- button enables to unlink / link markers of start / finish to allow tasks combination (simultaneously).
- button enables to change task thumbnail or to import a picture (max size = 300 pixels). If no frame of the video clip is acceptable, the user can double-click button.
- button enables to delete a currently selected thumbnail.
  By flying over a task ID, KL²® user can display the thumbnail in a pop-up window:

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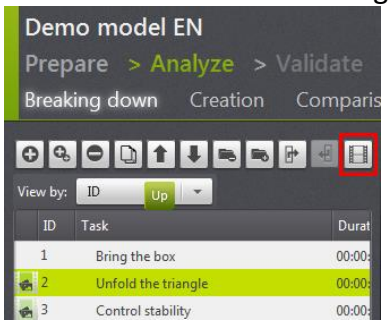
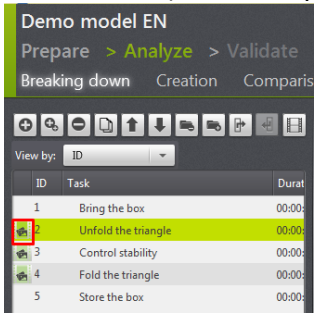
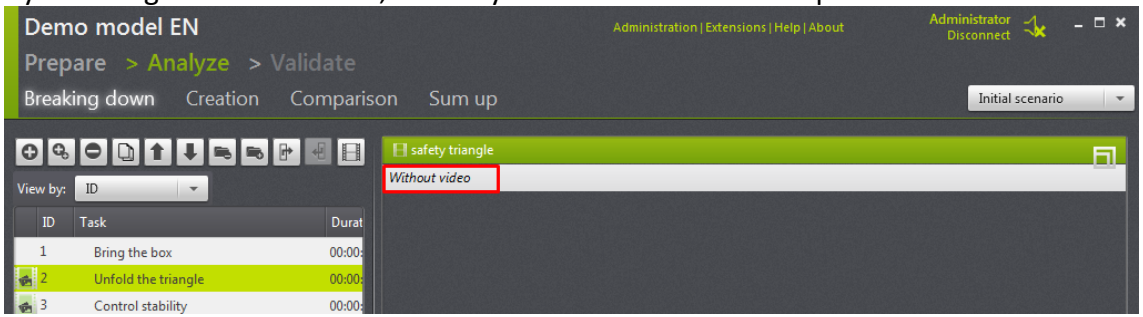
-  button enables to change video file to be split:



 button (one color per film) enables to select for a dedicated task another video sequence from another video file.



By selecting “Without video”, an analyst can delete a video sequence which is linked to a task.



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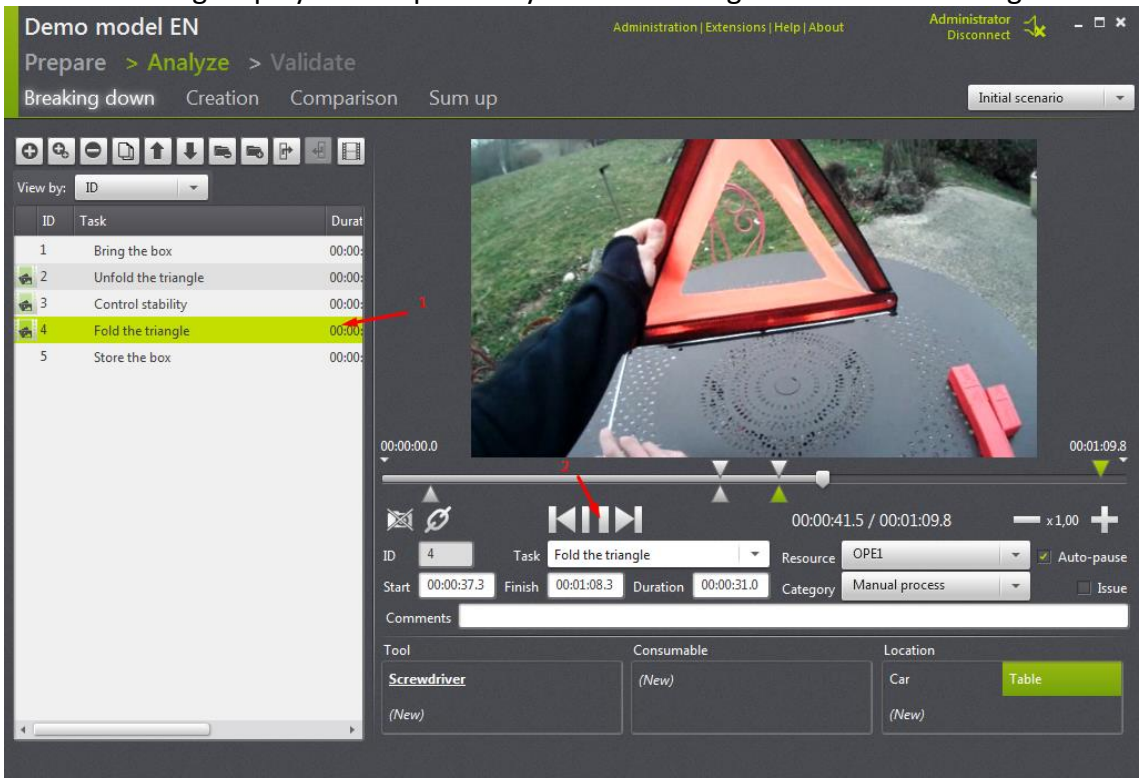
- The user can again play task sequence by double-clicking the task OR choosing task in left panel (1) and by clicking "Play" (2)



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4.4 ANNOTATE A SNAPSHOT

When selecting a frame as a thumbnail, a contextual menu appears to add graphical elements to the snapshot with different colors (rectangles, text fields, magnifying area, etc.).
NOTE:

This action has to be confirmed by clicking: 

or .

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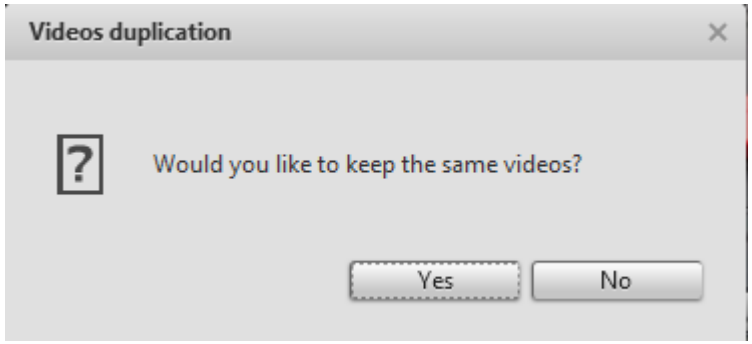
4.5 DUPLICATE AN EXISTING TASK (OR SEVERAL)

Select one or several task(s) or group of tasks, then click on 

A window pops up and proposes to duplicate video sequences as well or not:



This action must be confirmed by clicking Ok or cancel: 

or  .

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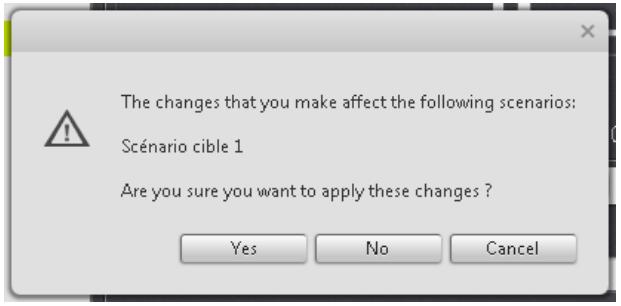
4.6 DELETE TASK

- To delete an existing task:

  Select a task in the list then click on 

  NOTE:

  - In case of impact on a scenario based on the current one, a window of alert and confirmation appears:



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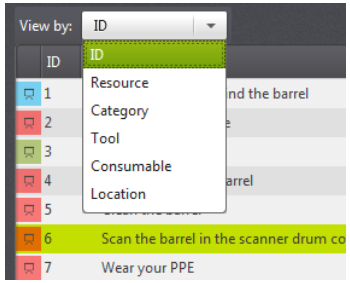
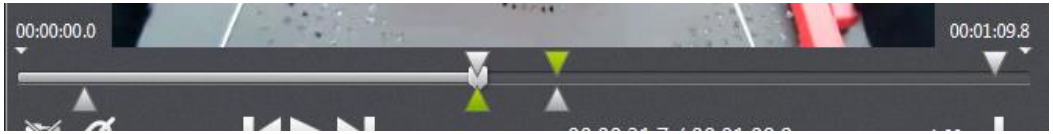
4.7 OTHER FUNCTIONS

- To display tasks by Referentials or by ID (by default) (process point of view)



- To change tasks order in structure: (that changes the ID numbers)
- To hide all sub-tasks groups
- To show all sub-tasks groups
- To access / change tasks information, click on it.
  NOTE:
  - Any modification requires validation with "Ok ".
- To group tasks, after selecting them
- To ungroup tasks .
- To « Zoom IN » or « zoom OUT » on the timeline, position the mouse pointer over the timeline and press Ctrl key and roll your mouse wheel.
- To move the timeline, position the mouse pointer over the timeline and roll your mouse wheel.



- To maximize / minimize video size, click (this button is visible only when the cursor is in the video area).

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5 HOW TO BUILD A SCENARIO USING GANTT CHARTS?

Why build a scenario using Gantt charts?

- **To give a global and precise vision of the chained and synchronized process tasks**
- **To identify critical path**

Pre-requisite

Organizational

- Details of chained and synchronized process tasks must be seen with work group (A macro vision can be done alone by an analyst)

Knowledge

- Know how to use Gantt charts
- How to break down a process

Technical

- To have done the break down step of the process (with or without video)

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What: (summary)

Important steps		Key points		Reasons for key points
1	Reconstitute tasks chaining of each resource	1.1	Check that there is a link between all tasks of a resource	Risk to have undesired combined tasks for a resource (do two things at the same time)
		1.2	Identify already Externalized tasks	To get accurate figures about process duration
2	Set up synchronizations between resources	2.1	Apply synchronization constraints between resources (link triggers to other resource's "depending" tasks)	To get the real critical path's constraints (why of each trigger)
3	Define the real load rate of the resources	3.1	If you choose to show explicitly waiting tasks during breaking down phase: remove eventual waiting tasks	If waiting tasks are not removed 1. Waiting time will be included in resource load rate. 2. in the later optimization phase the effects of improvement will not be applied to critical path (waiting tasks will be on the critical path)
4	Validate the overall Gantt chart with the work group using real time critical path video or resource video, histograms (below) and global process duration	4.1	Present to the work group the critical path video or resource video	To validate global consistency of triggers positioning and job content
		4.2	If process is sequential, make sure "combination rate" is null (no task is performed simultaneously by the same resource)	Double check that important step 1 is correct
		4.3	Check load rate consistency of each resource	Double check that important step 2 is correct
		4.4	Check that « total process duration » of critical path (top right corner) is consistent with what is expected	Double check that important steps 1 & 2 (and also break down at previous phase) have been performed successfully

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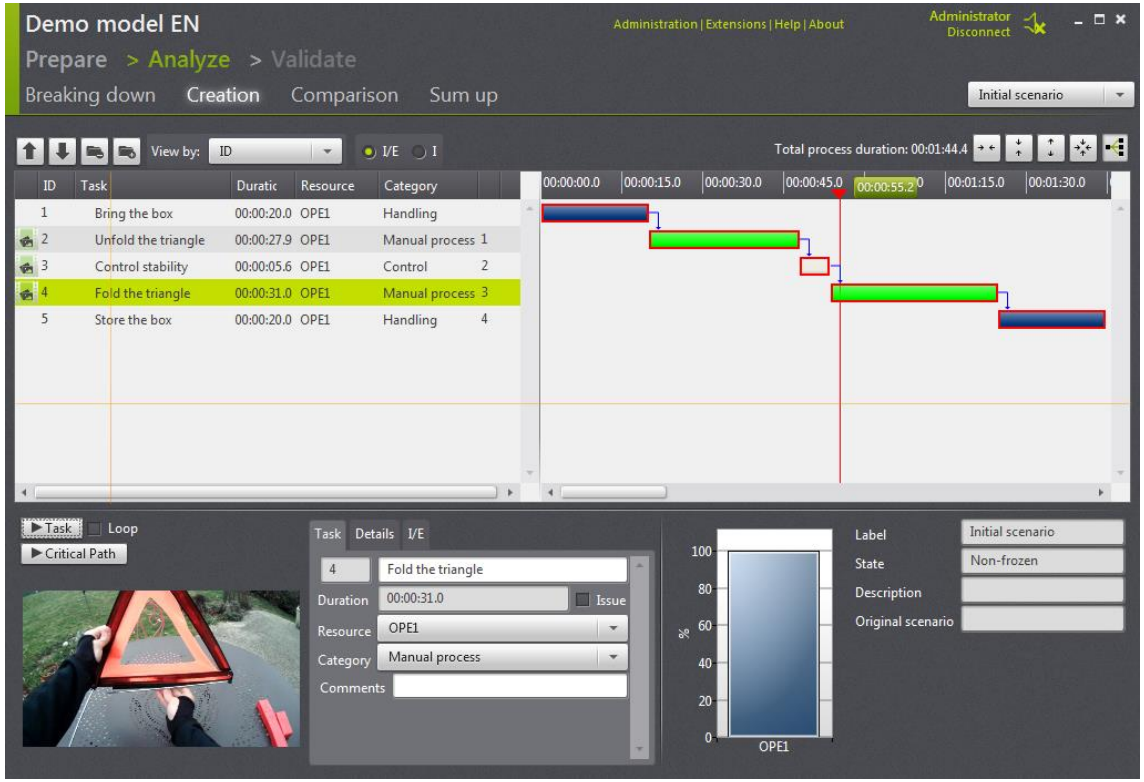
5.1 THE CREATION TAB



In this tab, the user describes his scenario from elementary tasks of Breaking down. After data entry, links between tasks in “Breaking down” tab are predefined by KL²®.

In this tab each task is described by:

- A time of process start (= initially video start time (if video is linked))
- A time of process finish (= initially video finish time (if video is linked))
- A process duration (= initially video duration (if video is linked))

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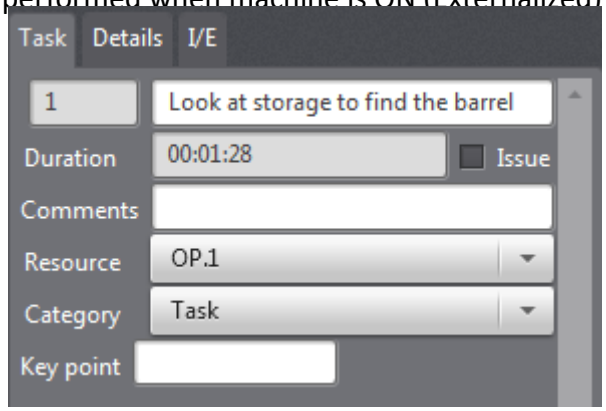
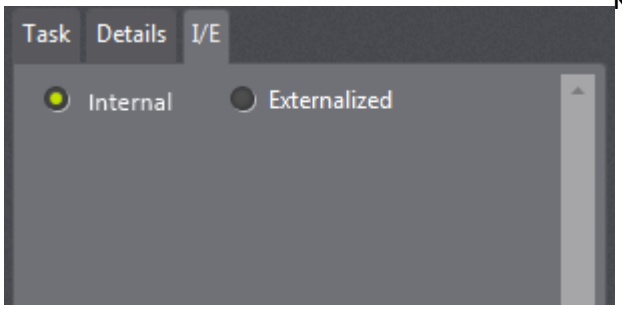
- To complete description of tasks if necessary:
  change information in “Task” / “Details” / “I/E” tabs (NOTE: “I/E” stands for Internal vs Externalized which is a SMED concept: is the task performed when machine is ON (Externalized) or OFF (Internal)):



KL²® user can access no greyed fields

KL²® user can change this information by selecting the task in “Analyze / Break down” tab.



Is that task “Internal” or already “Externalized” in this initial scenario ? (SMED context in theory)

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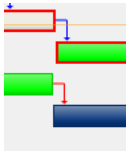
- To add links between tasks:
  Link a finalized task with start of another one (hold left button of mouse at the end of task to mouse over next task)
  NOTE:
  A link between tasks with the same resource is **blue**
  A link between tasks with different resources is **red**



- To delete link between tasks:
  Right click on a link then «Delete the link»
- To change tasks order (and ID numbers) 
- To show / Hide groups sub-tasks: 
- To adjust Gantt diagram scale:
  - To the Total process duration, click: 
  - To the Row number of the process, click: 
  - To both (duration and row number), click: 
- To come-back to the default vertical zoom, click: 
- Hide or display links between tasks, click: 
- Custom Gantt chart movements and zoom with mouse over the chart:
  - SCROLL : up / down
  - SHIFT + SCROLL : left / right (on time axis)
  - CTRL + SCROLL : vertical zoom
  - CTRL + SHIFT + SCROLL : horizontal zoom
- To show a task video sequence:
  1. Select a task
  2. Click 

     OR
     Just double-click the task

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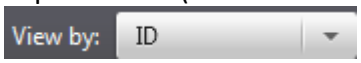
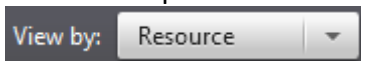
NOTE:

- Video can slow down / speed up or returned at the normal speed with the control panel that appears on top of the video player upon mouse over of video:

- A video sequence can be play in a loop if this box is checked: 

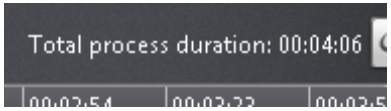
- To show the critical path video (KL²® reads only tasks which are on critical path):
  1. Switch to 

mode
  2. Click 

- To show a resource video procedure:
  1. Switch to 

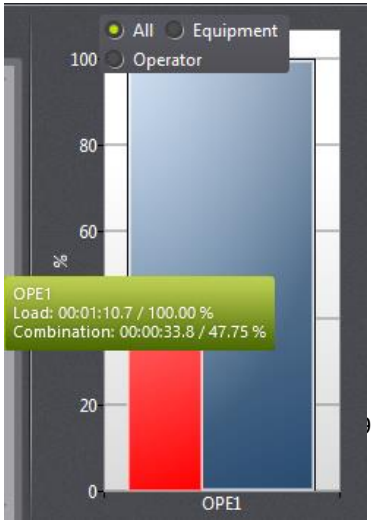
mode
  2. Choose the first task of the resource
  3. Click 

- To show performance indicators:
  1. Critical path duration:

     Real-time calculation at top right 

  2. Resources occupancy rate and combination rate:
     Mouse over histogram at bottom

     NOTE:
     The combination rate is calculated based on critical path on display.



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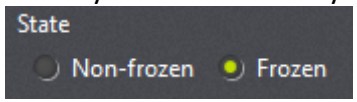
5.2 FREEZE SCENARIO

Initial scenario:
When you are satisfied by the documentation of the initial scenario, you must “freeze” it in the “Scenario” tab of the “Prepare” section.



Then, by clicking on  you can create a “target” scenario (this target scenario will be an exact copy of the initial frozen scenario).

Target scenario:
See “How to optimize a scenario”

Validation scenario:
See “How to validate a scenario”

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6 HOW TO ANALYZE A SCENARIO?

Why analyze a scenario?

- **To help obtaining operator's approbation**
- **To identify and quantify potential improvements**
- **To compare with previous scenarios to quantify gains and differences**

Pre-requisite

Organizational

- To be done do in work group

Knowledge

- To be able to manage a work group

Technical

- Have a scenario ready to be analyzed (scenario built with Gantt charts).

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What: (summary)

Important steps		Key points		Reasons for key points
1	Look “Comparison” tab (except Initial scenario)	1.1	Start with I (Internal) filter to hide E (External) and D (Deleted) tasks	Focus on internal tasks that cost more than external tasks (machines are stopped)
		1.2	Compare process’ in term of task length, task order, synchronization constrains and total process duration	To avoid errors and to check real impacts of improvements on the critical path
2	Look “Sum up” tab	2.1	Validate with work group the detail of resources occupation, locations, consumables, tools and documents	Obtain consensus on quality of the decomposition of the process in KL²®
		2.2	Choose the right statistics presentation: Accumulated times are for non-cyclical processes like a corrective maintenance, % are for cyclical processes (like production processes), occurrences are for safety and working conditions audits	To avoid wrong interpretation of the results
3	Look « Prepare scenarios performance »	3.1	Validate with work group the global performance by resource	To avoid errors and to check real impacts of improvements on the critical path
		3.2	Part of VA (Value Added) / NVA (Non-Value Added / BNVA (Business NVA).	To have a global overview of the improvement potential

NOTE:

Value Added: e.g. assembling a part to a product

Non-Value Added: e.g. walking to get a screwdriver

Business Non Value Added: e.g. recording the number of pieces produced during the run

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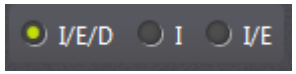
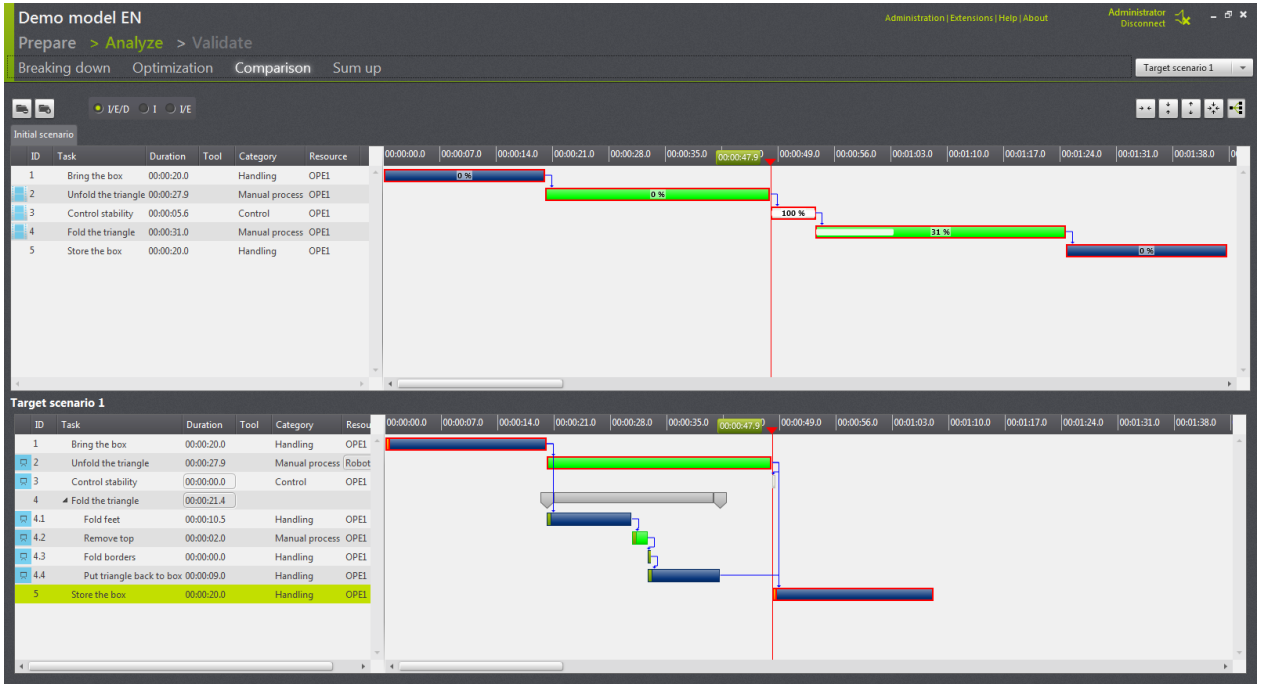
6.1 THE COMPARISON TAB

Functions:
In this tab, the user can:

- Filter Gantt diagram according to I / E / D, I or I/E 

- Accomplish a comparison between different scenarios

Improvements (consequences of Solutions) are shown in percentages on parent scenario (here initial Scenario):



Key points:	Reason for key points :
• Start with I (Internal) filter to hide E (External) and D (Deleted) tasks.	• Focus on internal tasks that cost more than external tasks (because machines are stopped).
• Compare process' in term of task length, task order, synchronization constrains and total process duration	• To avoid errors and to check real impacts of improvements on the critical path

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6.2 THE SUM UP TAB

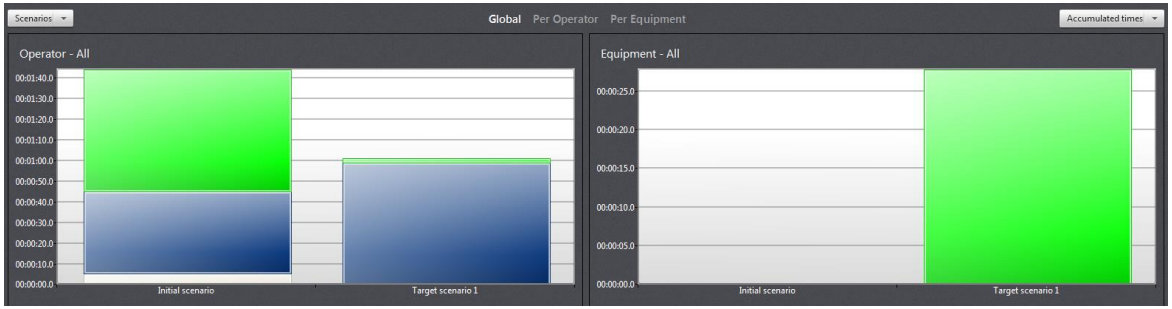
In this tab, user can display statistics of chosen scenarios in « Prepare – Scenarios».

Key points:	Reason for key points :
• Validate with work group the detail of resources occupation, locations, consumables, tools and documents	• Obtain consensus on quality of the decomposition of the process in KL²®
• Choose the right statistics presentation: Accumulated times are for non-cyclical processes like corrective maintenance, % are for cyclical processes (like production processes), occurrences are for safety and working conditions audits	• To avoid bad interpretation of the results

- Occupation

The user can:

- Show, for each selected scenario, Histogram of resource activity distribution according to categories "Global" (all resources) and by resource.
  The user can choose to display histogram by:
  - Accumulated times (for a one-shot process like a corrective maintenance)



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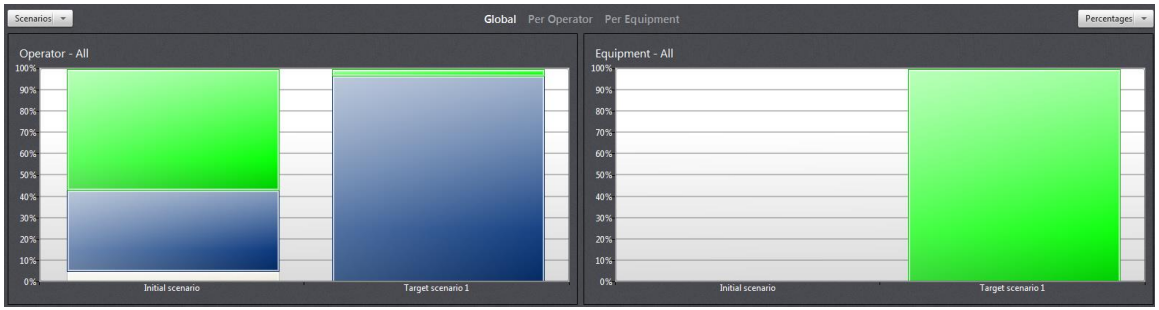
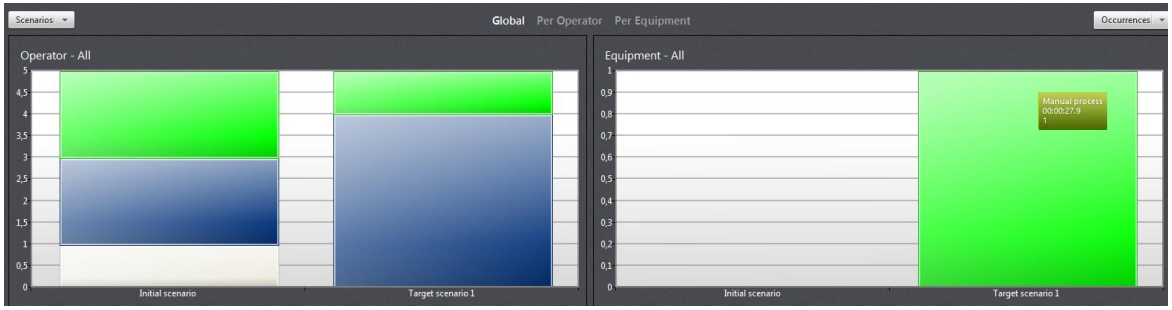
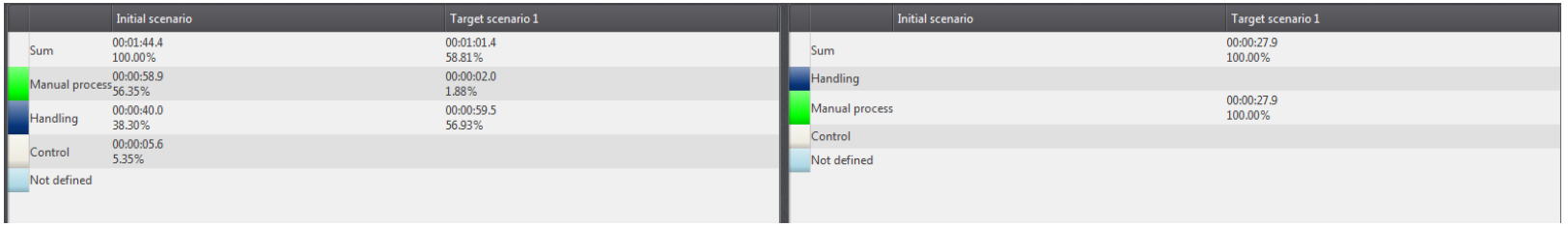
- Percentages (for a cyclical process like a production process)



- Occurrences (for a safety / working conditions analysis)



- Show target improvement for each resource and linked percentages



	Initial scenario	Target scenario 1
Sum	00:01:44.4 100.00%	00:01:01.4 58.81%
Manual process	00:00:58.9 56.35%	00:00:02.0 1.88%
Handling	00:00:40.0 38.30%	00:00:59.5 56.93%
Control	00:00:05.6 5.35%	
Not defined		

	Initial scenario	Target scenario 1
Sum		00:00:27.9 100.00%
Handling		
Manual process		00:00:27.9 100.00%
Control		
Not defined		

- Export each table in Excel format

  Select relevant items and then right click.

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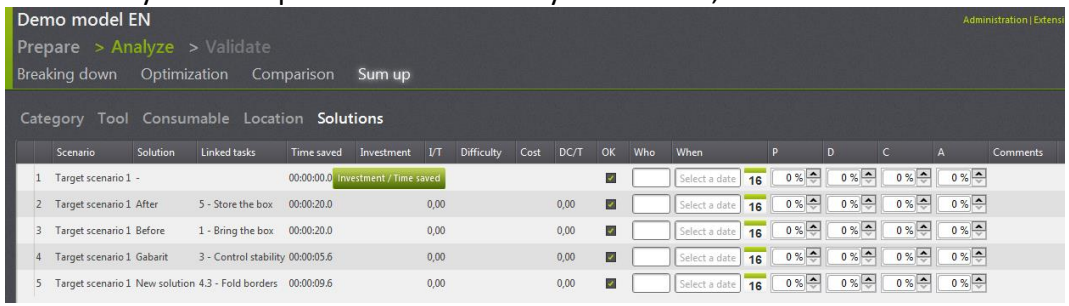
- Solutions

In this tab, user gets the same table as in "Optimization" tab. User must first choose a target Scenario.

NOTE: Only in tab “Optimization” “View by: Solutions”, this table can be modified.



- Other referentials:
  Each tab enables to monitor each element of each referential when element is defined. Visualization is the same as in "Occupation".

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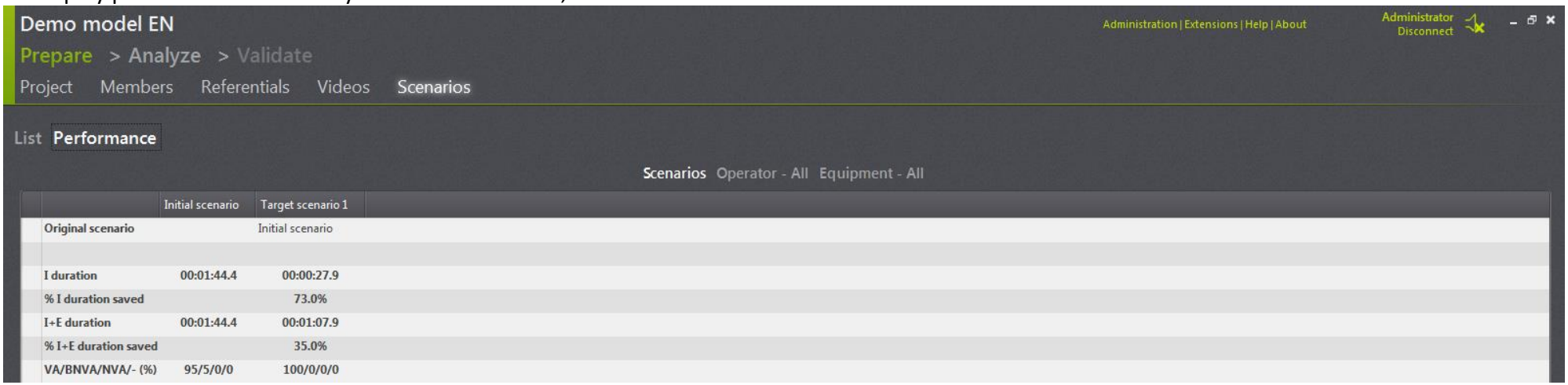
6.3 LOOK PREPARE SCENARIO PERFORMANCE (KPI)

Key points:	Reason for key points :
• Validate with work group the global performance by resource	• To avoid errors and to check real impacts of improvements on the critical path
• Part of VA/NVA/BNVA	• To have a global overview of the improvement potential

- To display performances summary of chosen scenarios, click on "Performance":



	Initial scenario	Target scenario 1
Original scenario		Initial scenario
I duration	00:01:44.4	00:00:27.9
% I duration saved		73.0%
I+E duration	00:01:44.4	00:01:07.9
% I+E duration saved		35.0%
VA/BNVA/NVA/- (%)	95/5/0/0	100/0/0/0

KPI's definition:

- I duration = process duration (of the critical path) with filter I (only Internal tasks are taken into account)
- % I duration saved = $\frac{Internal\ duration\ of\ the\ current\ scenario}{Internal\ duration\ of\ the\ original\ scenario}$
- I+E duration = process duration (of the critical path) with filter I/E (internal and external tasks are taken into account)
- % I+E duration saved = $\frac{I+Edurationofthecurrentscénario}{Idurationoftheoriginalscénario}$
- VA/BNVA/NVA/-(%) = Added value of the process with filter I/E :

$$\frac{\sum task\ durations\ with\ category = VA\ or\ BNVA\ or\ NVAOR\ with\ no\ category}{\sum task\ durations}$$

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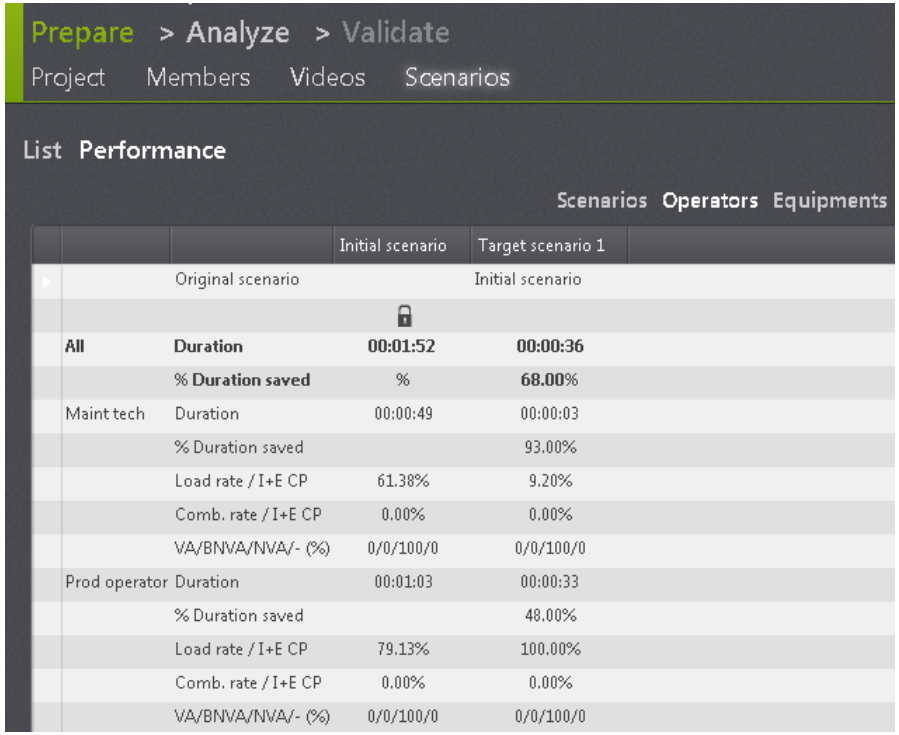
KPI's definitions:



		Initial scenario	Target scenario 1
	Original scenario		Initial scenario
All	**Duration**	**00:01:52**	**00:00:36**
	% Duration saved	%	**68.00%**
Maint tech	Duration	00:00:49	00:00:03
	% Duration saved		93.00%
	Load rate / I+E CP	61.38%	9.20%
	Comb. rate / I+E CP	0.00%	0.00%
	VA/BNVA/NVA/- (%)	0/0/100/0	0/0/100/0
Prod operator	Duration	00:01:03	00:00:33
	% Duration saved		48.00%
	Load rate / I+E CP	79.13%	100.00%
	Comb. rate / I+E CP	0.00%	0.00%
	VA/BNVA/NVA/- (%)	0/0/100/0	0/0/100/0

All:

- Duration = $\sum operatorstaskdurations\ (I\ and\ E)$
- % duration saved = $\frac{Current\ scenario\ duration}{Original\ scenario\ duration}$

Per resource:

- Duration = $\sum operatortaskdurations\ (I/E)$
- % duration saved = $\frac{Scénario\ duration}{Original\ sceanrio\ duration}$
- Load rate / I+E CP = Operator load rate based on I/E critical path duration
- Comb. rate / I+E CP = Operator combination rate based on I/E critical path
- VA/BNVA/NVA/-(%) = Operator added value with filter I/E:
  $\frac{\sum operator\ task\ durations\ with\ category = VA\ or\ BNVA\ or\ NVAOR\ with\ no\ category}{\sum operator\ task\ durations}$

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7 HOW TO OPTIMIZE A SCENARIO?

Why optimize a scenario?

In any projects, scenarios must be optimized:

- **to meet the best organization in term of safety and working conditions**
- **to reduce process time**
- **to limit the investment for improvement**

Pre-requisite

Organizational

- Must be done in work group. Don't forget to include people involved in the process from process dept., production dept. and **maintenance dept.** (to support technical improvements)

Knowledge

- To have experience in processing optimization to be able to propose solutions to delete, move externally or reduce tasks

Technical

- To have a "frozen" initial scenario

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What: (summary)

Important steps		Key points		Reasons for key points
1	Use “Analyze / Optimization” tab	1.1	Turn view filter to I / E / D in “Optimization” tab	To be able to change task types from I to E or D or reduce their duration in “Improvement” tab.
2	Consider organizational optimization first	2.1	Some of the tasks must be deleted	Some tasks are useless (without any added value)
		2.2	For SMED projects only: Some of the tasks can be moved externally (before or after the changeover) by a better organization	To reduce the change over time (internal time costs more than external)
		2.3	For SMED projects only: Organizational optimization of external tasks has to be considered (especially for tasks before the changeover)	To make sure that they will not interfere with changeover period (ex: die warm-up started too late)
		2.4	Parallelize tasks: reassign tasks to operators with lowest load rate if they have the required skills and that there is no risk for safety	To reduce process time
3	Consider technical optimization in a second step: reduce internal tasks by applying solutions	3.1	Look for consensus on time saved for each solution	To avoid later disagreements in restitution phase
4	Inform precisely about proposed solutions	4.1	Each solution must be considered in terms of cost value	To prioritize solutions giving the best “investment cost/time saved” ratio
		4.2	Each solution must be considered in terms of implementation time	To avoid a very long solution implementation

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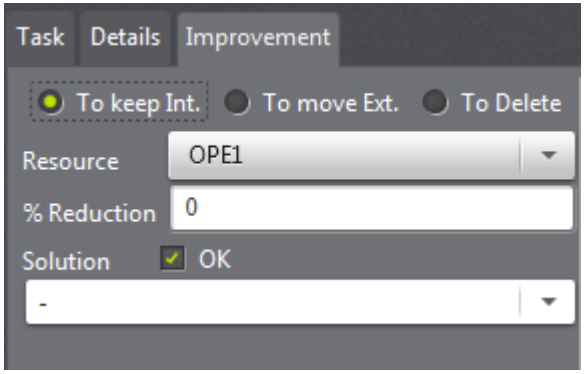
7.1 THE IMPROVEMENT TAB

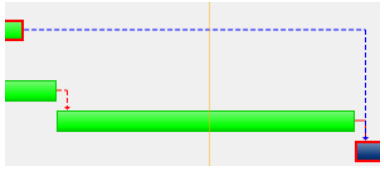
Key points:	Reason for key points :
• Turn view filter to I / E / D in “Optimization” tab	• To be able to change task types from I to E or D or reduce their duration in “Improvement” tab.

Except “Improvement” tab, “Optimization” tab includes the same functionalities as the “Creation” tab).
It applies to scenarios of “target” nature because it includes an "Improvement" tab at "Task" tab level:



The user can, task by task:

- Declare it "Internal" (by default) or «to move Ext» or «to be Deleted»:
  - If a task is E, an orange marker is added to bar in Gantt diagram.
  - If a task is D, reduction percentage is automatically set to 100 % and duration is zero.
- Change the assigned resource
- Enter a % of reduction (or reduce directly duration in Gantt diagram).
- Enter or choose a "Solution" in relation with suggested improvement.
- Activate or deactivate "Solution" (check box)
- Change links between tasks: in this case new links are in dotted line



The user can use filters to display:

- All types of task (I / E / D)
- Only (Internal) tasks I (useful as part of an optimization, standardization and SMED project)
- Tasks I and E (to move Ext.: preparation upstream and downstream from the changeover process therefore especially useful for SMED and standardization projects)

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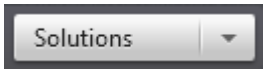
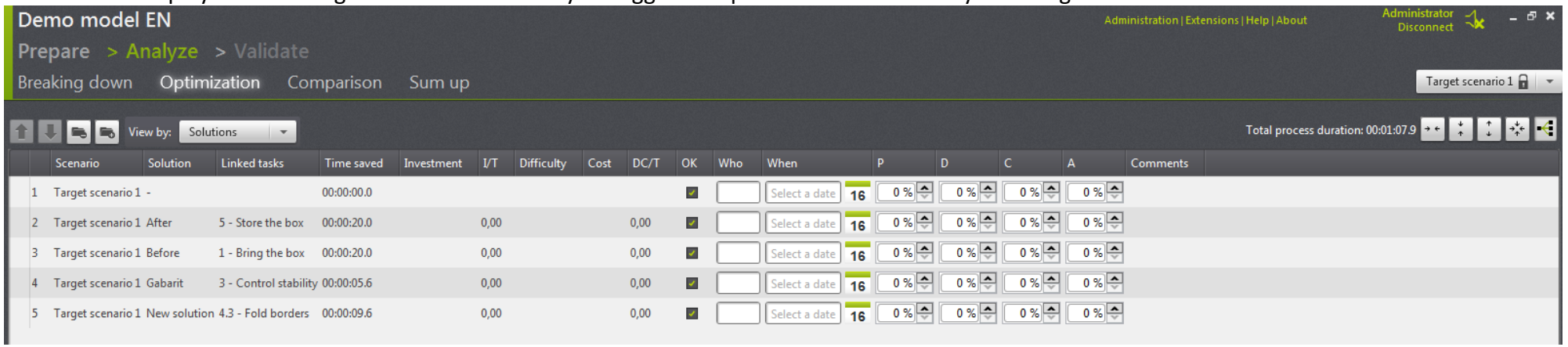
7.2 SOLUTIONS VIEW

The user can display for each target scenario a summary of suggested optimization solutions by selecting 



	Scenario	Solution	Linked tasks	Time saved	Investment	I/T	Difficulty	Cost	DC/T	OK	Who	When	P	D	C	A	Comments
1	Target scenario 1	-		00:00:00.0						☑		Select a date 16	0 %	0 %	0 %	0 %	
2	Target scenario 1	After	5 - Store the box	00:00:20.0		0,00			0,00	☑		Select a date 16	0 %	0 %	0 %	0 %	
3	Target scenario 1	Before	1 - Bring the box	00:00:20.0		0,00			0,00	☑		Select a date 16	0 %	0 %	0 %	0 %	
4	Target scenario 1	Gabarit	3 - Control stability	00:00:05.6		0,00			0,00	☑		Select a date 16	0 %	0 %	0 %	0 %	
5	Target scenario 1	New solution	4.3 - Fold borders	00:00:09.6		0,00			0,00	☑		Select a date 16	0 %	0 %	0 %	0 %	

By completing columns Investment and / or Difficulty and Cost, the user gets useful ratios to facilitate decision making process to implement or not suggested "Solutions" by working group.

NOTE:

- For DC/G ratio, it is recommended to use Difficulty and Cost index between 1 and 3, but the user can use higher integers if necessary e.g. between 1 and 5.
- The “Cost” must always be expressed in the same unit.

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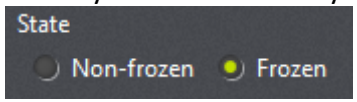
7.3 CREATE NEW TARGET SCENARIO

You can create a new target scenario to explore other types of optimization.

By selecting an existing target scenario or the initial scenario again and by clicking on  , KL²® creates a “target” new scenario based on the chosen target scenario. You can make as many target scenarios as you like.

When you are satisfied by the documentation of the scenario, you must “freeze” it in the “Scenario” tab of the “Prepare” section.



Then you can move to the next step, by clicking on  you can create the “validation” scenario.

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8 HOW TO VALIDATE A TARGET SCENARIO?

Why validate a target scenario?

- **To check if the objectives set during analyze phase are reached in the workshop**
- **To demonstrate that the optimized process is feasible**
- **To explain the possible gaps between theory (target scenario) and reality (validation scenario)**
- **To create training material**

Pre-requisite

Organizational

- Have filmed the real optimized process (and so have given a minimum training to operators to the new process)
- The filmed optimized process seems to have performances consistent with expectations

Knowledge

- How to optimize a scenario

Technical

- To have a frozen target scenario
- To have implemented technical improvements (decided in the target scenario)

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What: (summary)

Important steps		Key points		Reasons for key points
1	Assign validation video files to the project	1.1	Cf "Prepare" phase	
2	Create the Validation scenario	2.1	In "Scenarios" tab, freeze the Target scenario then click (+)	The Validation is performed for only one Target scenario
		2.2	To decide to keep (or not) video sequences of tasks which length has not been modified	By keeping these sequences, the analyst can save time: he can just validate modified tasks. The analyst can anyway change any other video sequence afterwards.
3	Adjust theoretical target scenario to validation process	3.1	In creation tab, validate all logical links between tasks	To save lots of time using the semi-automatic assignment of a video to a task function in the breaking down tab
		3.2	In "Break down" tab suppress unused tasks	To save lots of time using the semi-automatic assignment of a video to a task function in the breaking down tab
4	Assign tasks from the frozen target scenario to new video sequences	4.1	Create new tasks in validation (that doesn't exist in target scenario) in real time while modifying the links.	To save lots of time using the semi-automatic assignment of a video to a task function in the breaking down tab
		4.2	Validate global consistency of the validation scenario in Sum up and in Creation tab using video as much as possible (see "How to build a process")	To "sell" the new process to work group To avoid mistakes
5	Compare target frozen scenario with validation scenario	5.1	Document gap reasons in special column in comparison tab	To keep trace of explanation to be able to communicate
6	Validate scenario	6.1	Freeze validation scenario once validated by work group	To give access to a Trainer to use the scenario To be able to create a new project with an Initial Scenario based on the frozen Validation Scenario

NOTE:

All scenarios of the project are frozen  **until a Validation Scenario exists.**

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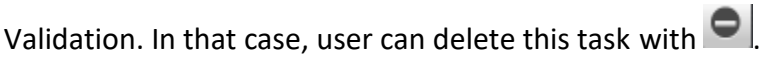
8.1 REUSING TARGET SCENARIO'S DOCUMENTATION

In this "Validate / Breaking down" tab user must link theoretical tasks from the validated target scenario in « Analyze / Optimization» on a film (or films) of validation.
To speed up, the breaking down step, KL²® uses predecessor links and task duration from the frozen target scenario to preset Start and Finish markers. If predecessor links are well designed in "Creation" tab, the user has only to adjust the Finish marker of each task.

NOTE:
It is possible that:

- A planned task in the frozen scenario of "Target" nature is not accomplished in Validation. In that case, user can delete this task with  . In "Comparison" tab, the saving percentage will be100 %in frozen target scenario.
- An unplanned task in the frozen scenario of "Target" Nature is accomplished in Validation. The user can create a new task with  . In the Gantt diagram, these tasks have a green marker 

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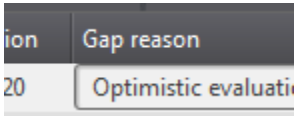
8.2 GAP REASON DOCUMENTATION

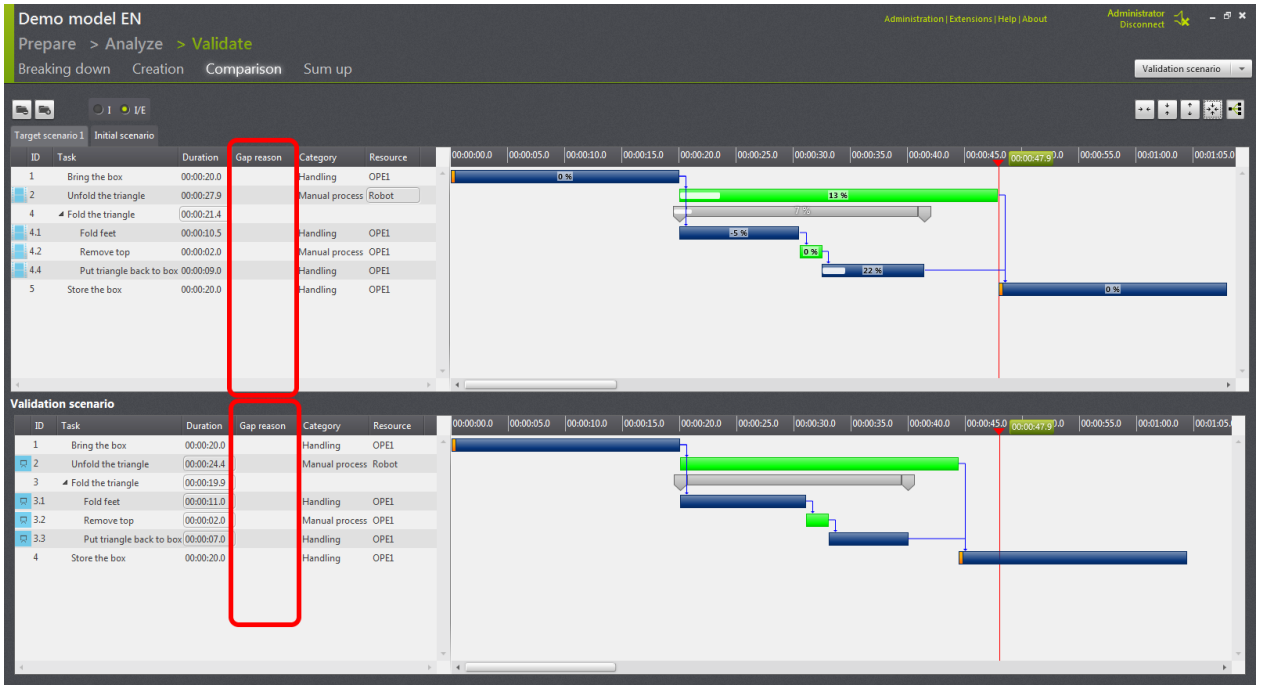
Note: The possibility to document “Gap reason” in the validate tab is the only difference between “Validate” and “Analyze”.

In the ”Comparison” section of the “Validate” tab it is possible to document the reasons of the gap between the selected target scenario and the validation scenario.



User can document **a** “gap reason” for tasks that:

- have a different duration between both scenarios
- are deleted in the target scenario.
- have been added in the validation scenario.



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9 HOW TO STANDARDIZE A PROCESS WITH KL²®?

Why standardize a process with KL²®?

- **To build the process based on the best practices in order to reduce process variability, safety risks and increase performance**

Pre-requisite

Organizational

- Must be done in work group

Knowledge

- To have minimal experience in standardization project

Technical

- Several videos of the same process are needed

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What: (summary)

Important steps		Key points		Reasons for key points
1	Film the same process with different shifts (or same shift at different moments)	1.1	The process is supposed to be the same for all shifts (or anytime for the same shift).	To able to compare shifts activities (two types of variability: inter or intra operator variability)
2	Break down the videos in the same scenario (“Initial” or “Target” Scenario)	2.1	Stay at high level of task description	The more tasks you have the more difficult it is
		2.2	Tasks must have the same meaning and same name label cross shifts	Otherwise you can’t compare shifts activities
		2.3	Resource’s name must be comparable (e.g. Technician1 for first video and Technician2 for the second video)	To be able to compare activities in statistics.
3	Save / Freeze the scenario	3.1	Create a copy of the scenario (inherited from another one)	In case of trouble not to lose your work
4	Task by task see with working group which one to keep (and delete other ones)	4.1	Use video has much as possible to show different tasks versions	Different teams can see how others complete process
		4.2	Merge resource names (e.g. Technician1 and Technician2 => Technician)	To be able to compare activities in statistics.
5	Link selected tasks to create standardized process	5.1	See “how to build a process”	
6	Validate the standardized process	6.1	See “how to validate a process”	

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10 HOW TO EXPORT OR IMPORT KL²® DATA OR OBJECTS?

Why export or import KL²® data or objects?

- **To present achievements or create reporting**
- **To share projects between KL²® users**
- **To avoid recreating existing video breaking down**

Pre-requisite

Technical

- Have projects / scenarios or video break down to export / import
- Be KL²® Administrator or have KL²® data export / import rights

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What: (summary)

Important steps		Key points		Reasons for key points
1	Export / Import project in ".ksp" file	1.1	Video files are not included in ".ksp" files. Thumbnails are included.	To reduce database size and import/export delays
		1.2	When importing a project, you need to reassign project members	Project members are not exported.
2	Export / Import video breaking down in ".ksv" file	2.1	Video files are not included in ".ksv" files. Thumbnails are included.	To reduce database size and import/export delays
		2.2	Import can be done only in Initial scenario	Too complex to manage links with previous scenarios
3	Export to Excel	3.1	Any spreadsheet in KL²® can be exported to Excel by right click	To be able to share any data if necessary
		3.2	Default format is "xlsm" and the template "base excel.xlsm" is accessible to PC administrator in C:\Program files\K-process\KSmed2\Resources	To allow the user to develop his own macros

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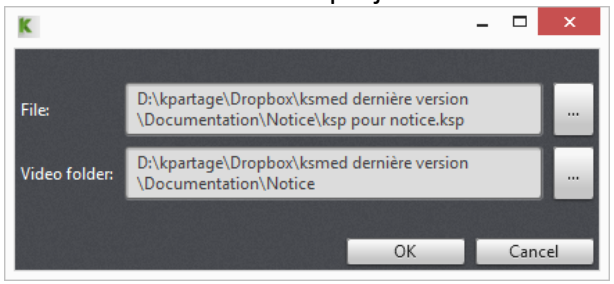
10.1 EXPORT OR IMPORT PROJECT

- To "Import" a project of another KL²® user or a preset project (template):

  Click on  , a window appears and the user must:

  1. Fetch the ".ksp" file in corresponding folder
  2. Link a video folder to his project.



Key point	Reason for Key point
• Video files are not included in ".ksp" files • Thumbnails are included.	• To reduce database size and import/export delays
• When importing a project, you need to reassign project members	• Project members are not exported.

- To "Export" a project for another KL²® user or to save a project template:

  Choose a project in the list and click on  .

  The user enters the name of the ".ksp" file in its storage location.

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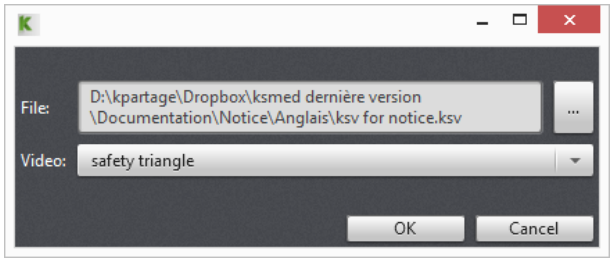
10.2 EXPORT OR IMPORT VIDEO BREAKING DOWN

- To import the breakdown of a video from another project scenario into the initial scenario:

  Click on  , a window opens and the user:

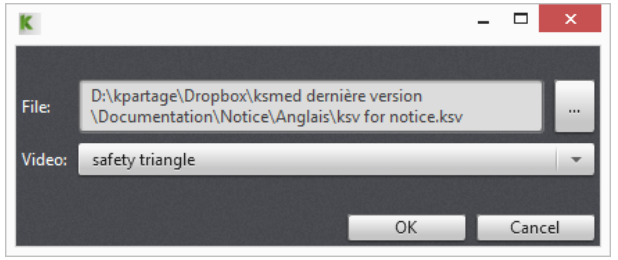
  1. Selects in corresponding folder, its ".ksv" file
  2. Links a video folder to its project.
     Reminder: Videos are not included in ".ksv" files.



Key point	Reason for Key point
• Video files are not included in ".ksv" files • Thumbnails are included.	• To reduce database size and import/export delays
• Import can be done only in Initial scenario	• Too complex to manage links with previous scenarios

- To export current project video break down for another KL²® user or for another project:

  Choose a scenario in the list and click on  .
  The user enters the ".ksv" file name in its storage location.
  Then a window opens: The drop list allows the user to select the video to export.



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10.3 EXPORT TO EXCEL

- To Export any table or spreadsheet in KL²® right click anyplace on the table and select “Export to excel” to choose the location of the file you want to create (exactly as below).

- To “Export a project in Excel”:

  Choose a project in the list and click on  .
  The user enters the Excel file name in its storage location.
  Excel opens automatically at the end of the export.
  NOTE:
  - Required version of Excel is 2010 (or Excel Viewer) at least.

Key point	Reason for Key point
Any spreadsheet in KL²® can be exported to Excel by right click	To be able to share any data if necessary
Default format is “.xlsm” and the template “base excel.xlsm” is accessible to PC administrator in C:\Program files\K-process\KSmed2\Resources	To allow the user to develop his own macros

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11 HOW TO ADMINISTRATE REFERENTIALS?

Why administrate referentials?

- **To standardize the process documentation vocabulary (standards are referentials which are available for all projects)**

Pre-requisite

Organizational

- Existence of a global policy on process documentation

Knowledge

- Know the global policy

Technical

- To have administrator rights in KL²® to manage standards or to have analyst rights to manage referentials at project level

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What: (summary)

Important steps		Key points		Reasons for key points
1	Manage standards for all projects	1.1	Do not include too many	Practical difficulty to find right entry in long list
2	Manage referentials at a specific project level	2.1	Two ways to proceed: Either you document the referential in real time (progressively) either you use a project template with preset standards	
		2.2	If necessary, add others specific referentials to the project but try to select them among standards	To have the same process vocabulary according to global policy on documentation

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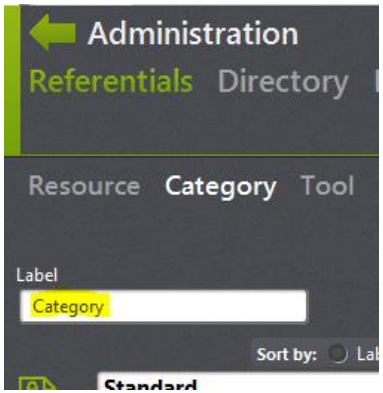
In “Administration/Referentials” tab:
This tab includes all possible referentials linked to a task:

- Resources:
  - Equipment
  - Operators
- Categories
- Ref 1 to 7

Only "Categories" are described in this document. The other referentials have the same behavior.

For each of these referentials:

- To name the referential in Label field:



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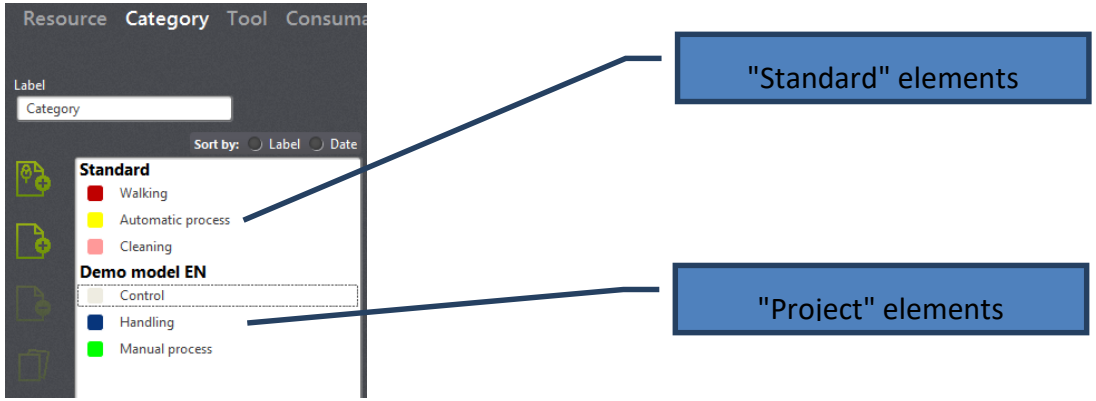
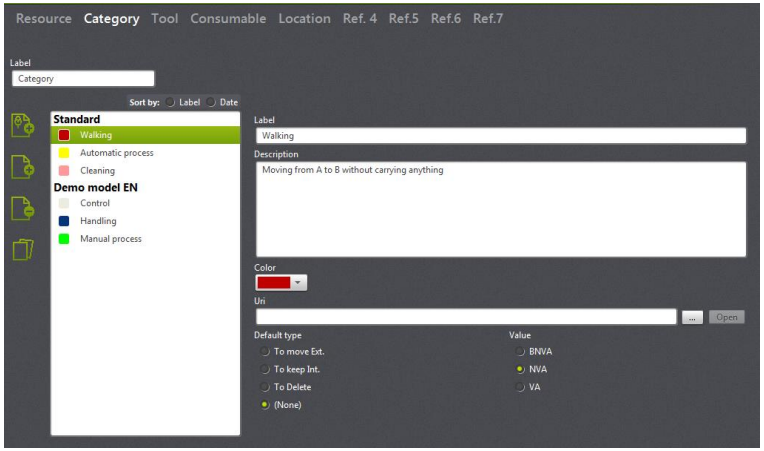
- To Add “Standard” elements, click on  or "project" elements, click on 

  A “Standard” element is accessible to all projects of database.

  A “Project” element is accessible only to the linked project.





The required fields are:

- Element label
- Value (only for "Categories")
- Linked project (only for "Project" element)

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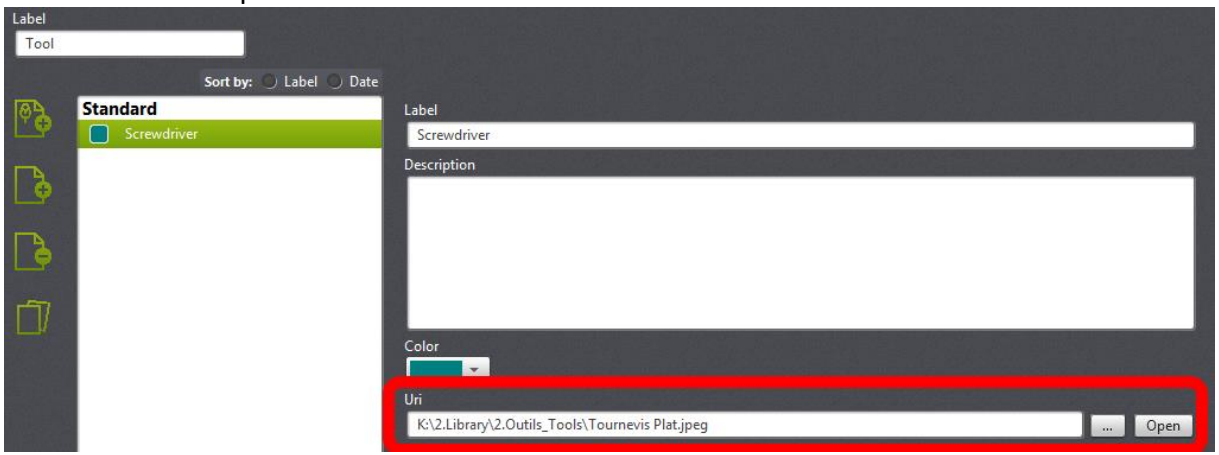
Color is automatically assigned by KL²® but can be changed.
Validation by clicking on OK

NOTE:

- For each element of a referential, a URI linked to an image file, pdf file, ... can be combined and opened in Ksmed ®.
  This URI will be exported to MS Excel.



- In case of use of the images in MS Excel after export, it is highly recommended to use JPG format.

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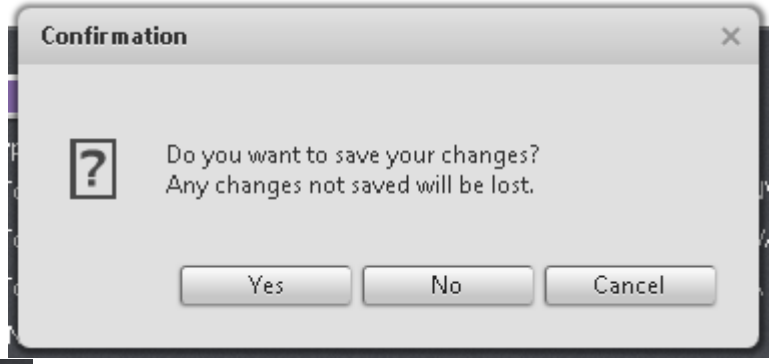
- To delete an element, select it and click on  .

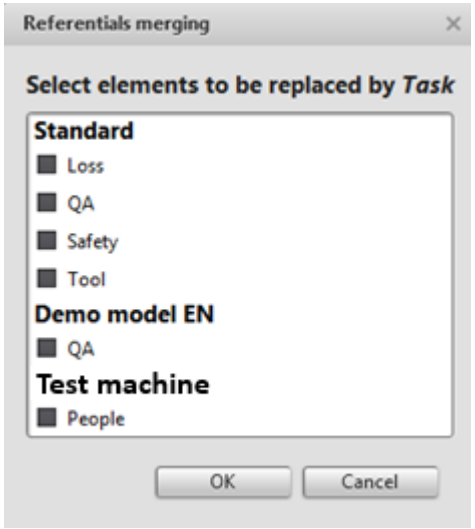
  NOTE:
  - If the element is used, a message is displayed to inform the user that it is impossible to delete it.
- To change an element, select it.

  NOTE:
  - Any modification requires validation with "Ok ".
  - When modifications are accomplished without save, an alert window opens so that the user confirms his action



- To merge several elements, click on  .

  A window appears and user chooses Element(s) to be merged, and then valid with Ok.



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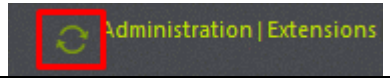
12 KL²® IN DATABASE SHARING AND MULTI USER MODE

KL²® can be setup in this mode (ask your IT Dept. for this configuration setup). This configuration allows several users to access and work simultaneously on the same database. Key advantages are:

- Documentation and project standardization,
- Easier knowledge sharing,
- Better security of your data as the backup administration is done by your IT Dept.

Key points:	Reason of key points:
• **Backup/Restore feature within KL²® is inactivated**	• Database management is performed by your IT Dept.
• **A Refresh button is accessible:** 	• This button allows the user to reload a view/page/tab of KL²® in case another user has performed a modification

13 KL²® SOFTWARE ENVIRONMENT

What: (summary)

Important steps		Key points		Reasons for key points
1	Launch KL²®	1.1	Enter login and password **Default Administrator account is :** **ID = admin / Password = admin**	To access to a secured environment
		1.2	If possible, choose field operators language as KL²® language.	To make KL²® more user-friendly to field operators who don't speak English
2	Manage user roles	2.1	There are 4 roles in KL²®: "Administrator", "Analyst", "Contributor" and "Trainer" + right to export/import KL²® data	Useful when more than one person is using KL²® on the same computer to make sure they do not modify projects of other users by mistake
		2.2	Roles are managed in the "administration" tab (administrator rights needed)	To increase security
3	KL²® typical screen	3.1	There is a standardization of the look and feel of all KL²® screens	To facilitate learning and increase tool's use efficiency

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		3.2	KL²® has been designed to display a minimum width of 1024	To be compatible with older video projectors.
		3.3	As long “Ok” or “Cancel” buttons are displayed, the user cannot change of screen.	To save regularly data modifications in the database.
4	Smart keys	4.1	To manage video player you can use short cuts (F2,F3,F4,F5 and F9) To manage add / delete any element (F8, “Del”)	To break down or manage video player faster.
5	User Manual	5.1	User manual is always available in PDF format by clicking the Help entry	A reminder of all KL²® functions.
6	Error management	6.1	Ask your IT to authorize the automatic sending of error reporting.	To save your time reporting errors manually.

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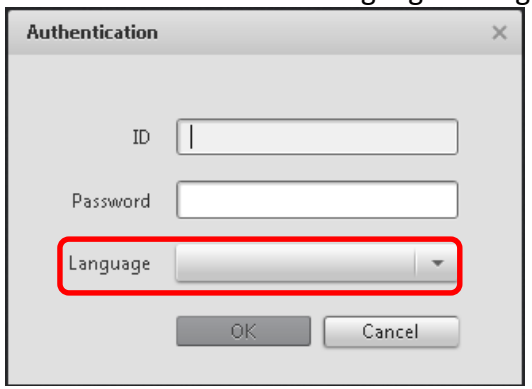
13.1 LANGUAGE MANAGEMENT

Each time user launches KL²®, the language of operating system is used to display the authentication screen. If this language is not supported, the default language (English) is used.

Key points:	Reason for key points :
• If possible, choose field operators language as KL²® language.	• To make KL²® more user-friendly to field operators who don't speak English

The user can choose his language during the authentication process:



- If one language is selected:
  - The language is defined as default language in his profile. This language is also used for the screens which follow the authentication process.

- If no language is selected:
  - Nothing is saved in his profile.
  - If the user already has a default language in his profile, it is automatically used for the following screens.

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13.2 USER ROLES

Key points:	Reason for key points :
• There are 4 roles in KL²®: “Administrator”, “Analyst”, “Contributor” and “Trainer” + right to export/import KL²® data	• Useful when more than one person is using KL²® on the same computer to make sure they do not modify projects of other users by mistake
• Roles are managed in the “administration” tab (administrator rights needed)	• To increase security

The KL²® users are divided in4 different roles:

Administrator:

- Creates standards in referentials (categories, places, tools, etc.).
- Defines users and their default role in KL²®.
- Creates projects.
- Chooses and defines objectives, resources and projects agenda.
- Defines member roles by project.
- Exports a project in KL²® format (“.ksp”) or a project video break down.

Analyst:

- Carries out project analysis and optimization.
- Can selected and configure active referentials per project.
- Changes contents of a project (except standards and project definition page).

Contributor:

- Takes part in working group meetings and/or in Film (s).
- Consults projects he is associated to.

Trainer:

- Consults frozen validated scenario of projects he is associated to.
- Deploys standards.

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Reading and Writing rights by screen:

Screen	Role	Reading	Writing
Prepare – Project	Administrator	X	X
	Analyst	X	
	Contributor	X	
	Trainer	X	
Prepare - Members	Administrator	X	X
	Analyst	X	
	Contributor	X	
	Trainer		
Prepare – Referentials	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Prepare – Videos	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Prepare - Scenarios	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Analyze –Breaking down	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Analyze - Creation/ Optimization	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Analyze - Comparison	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Analyze – Sum up	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer		
Validate–Breaking down	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer	X	
Validate - Creation	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer	X	
Validate - Comparison	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer	X	
Validate– Sum up	Administrator	X	X
	Analyst	X	X
	Contributor	X	
	Trainer	X	

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Screen	Role	Reading	Writing
Administration – Projects referentials	Administrator	X	X
	Analyst	X	X (except referentials' names)
	Contributor	X	
	Trainer		
Administration – Standards referentials	Administrator	X	X
	Analyst	X	
	Contributor	X	
	Trainer		
Administration – Directory	Administrator	X	X
	Analyst		
	Contributor		
	Trainer		
Administration – Backup/restore	Administrator	X	X
	Analyst		
	Contributor		
	Trainer		
Administration – Activation	Administrator	X	X
	Analyst		
	Contributor		
	Trainer		

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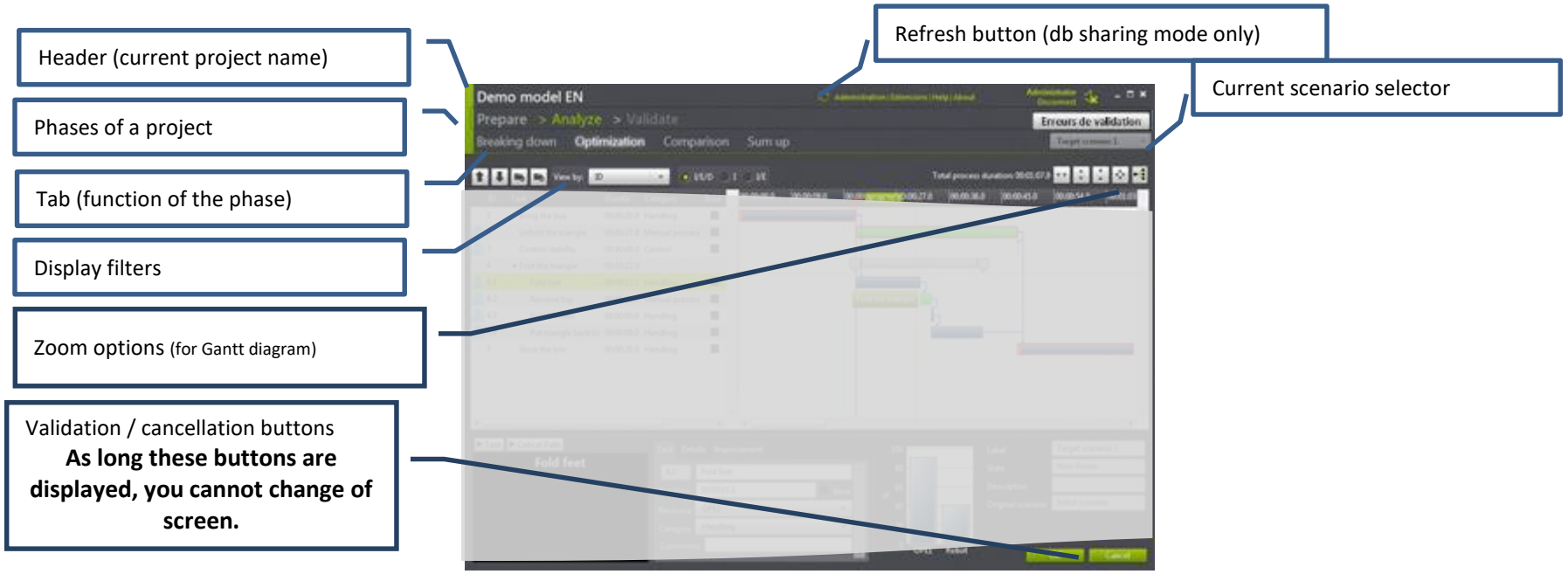
13.3 KL²® STANDARD SCREEN

Key points:	Reason for key points :
• KL²® has been designed to display a minimum width of 1024	• To be compatible with older video projectors.
• As long “Ok” or “Cancel” buttons are displayed, the user cannot change of screen.	• To save regularly data modifications in the database.



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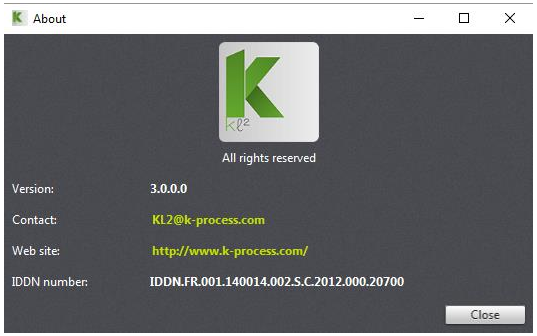
The header includes:

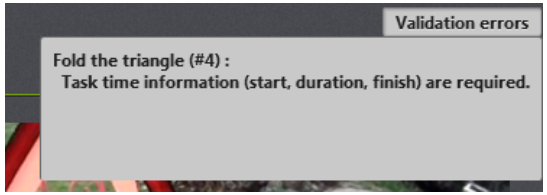
- Name of current project
- Links to access:
  - "Administration"
  - "Extension" (to manage KL²® Extensions dedicated to some customers)
  - "Help" (current user manual)
  - "About" window:



- Name of the user
- Link to change user
- Sound control: ON / OFF
- Icons to manage display (minimize, extend, close)

When required fields are not completed, the 

button appears on the top right corner. By clicking on the button, all errors are listed for the user to correct them.



13.4 SMART KEYS SUMMARY

To improve productivity, KL²® includes some predefined smart keys.

Key points:	Reason for key points :
• To manage video player you can use short cuts (F2,F3,F4,F5 and F9)	• To break down or manage video player faster.

F2: Going backwards step by step (step length based on project Accuracy as defined in Prepare/Project) 

F3: Play  / Pause 

F4: Going forward step by step (step length based on project Accuracy as defined in Prepare/Project) 

F5: Accept or 

or 

or 

F8: 

F9: 

« Del » key: 

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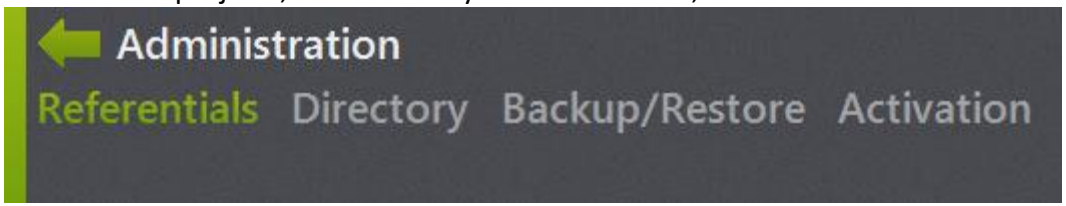
13.5 KL²® ADMINISTRATION

To access “Administration” section of KL²®, click on 

in the header.

To return to "project", it is necessary to click on  , above on the left.



13.5.1 REFERENTIALS

See” How to administrate referentials ?” above.

13.5.2 DIRECTORY

- To add new users:
    1. Click on 
    2. Enter at least:
        - a user name,
        - a role and if necessary the right to export/import KL²® data,
        - A password (to be entered twice).
    3. Click on 

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- To modify/update an existing user:
    1. Select user to be modified
    2. Change required fields
    3. Click on OK
- To delete an existing user:
    1. Select the user to be deleted
    2. Click on 
    3. Click on OK

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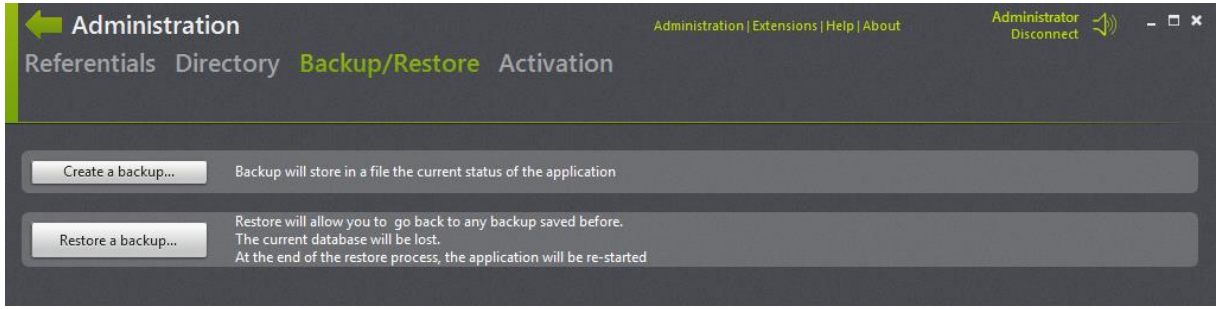
13.5.3 BACKUP / RESTORE

NOTE:
All KL²® workstation data are stored in a real-time mode (every time the user clicks “Ok”) in a SQL database on workstation’s hard drive or a server.

In this tab, a KL²® administrator can:
Backup (store) the database to save the current state of KL²® workstation
Restore (upload) an already saved database. In this case, the current state of KL²® workstation will be lost.



NOTE:
In case of database sharing mode, this feature is disabled. Database administration is performed by your IT Dept.

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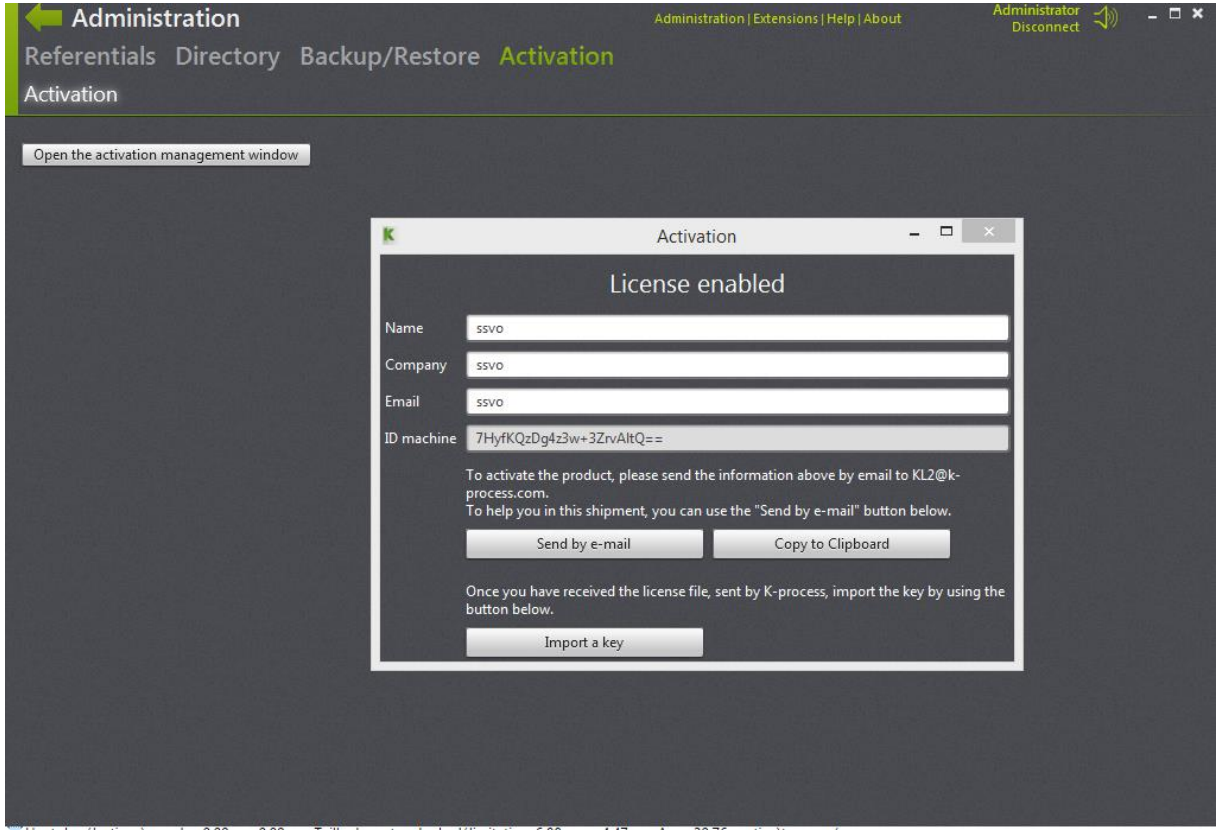
13.5.4 ACTIVATION

Functions:
In this tab, the user can:

- Activate a license file
- Have information about license



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13.6 ERROR MANAGEMENT

In case of incident (unexpected error), if the option is enabled and the PC connected to the internet, an automatic report is sent to K-process. If it is not the case, it is necessary to transmit to K-process at KL2@k-process.com the following elements:

- The file "log.log" from KL²®. To find this file:
  1. Click "Start"
  2. Enter "%APPDATA%" in the field "Search"
  3. In the window of Windows explorer, go in:
     "K-Process / KL² / Logs"
- An export of the project which causes problem in format ".ksp" if you think that it is useful.
- A detailed description on how to reproduce the problem.

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14 USER MANUAL REVISIONS

#	Date	What	Who
0.1	25/08/13	Creation English version	Ssvo
0.2	26/08/13	Review	Ssvo
0.3	09/06/14	Release 2.6 – minor changes	Ssvo
0.4	27/10/14	Release 2.6 – free text or numerical fields – simplification export / import data	Ssvo
0.5	16/03/15	How to film – update IDDN number	Ssvo
0.6	22/06/15	Release 2.8	Ssvo+Xm+Cn
0.7	27/10/16	Release 2.8.1	Qh-Ssvo
0.8	22/10/17	Release 3.0	Ssvo / Qh

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