Tutorial
SemTalk 3.2
EPC Edition

Contents

1. About Event-driven Process Chains (EPC) 3
2. Starting SemTalk EPC Edition 4
3. Editing a process 6
3.1. Adding Process Elements 7
3.2. Using Swimlanes 10
3.3. Object oriented process modeling 13
3.4. Editing process elements 17
3.4.1. Function Dialog 18
3.4.2. Function “Hum. Resource” Tab 20
3.4.3. Function “Measures” Tab 22
3.4.4. Function “ERP” Tab 23
3.4.5. Control Flow Dialog 24
4. Value Chains 26
5. Org Charts 27
6. Class Diagrams 29
7. Resources 33
8. Refinements 34
8.1. Attachments and Visio-Hyperlinks 36
9. Customizing Colors 37
10. Simulation 38
11. Dialog View 39
12. XPDL Export 41
13. Importing and Exporting of ARIS and EPML 42
13.1. AML 42
13.2. EPML 45
14. Importing from SAP 46
14.1. Importing from SAP R/3 46
14.2. Import data from SAP Solution Composer, ESR and Solution Manager 48
15. Figures 52

1. About Event-driven Process Chains (EPC)

„Event driven Process Chains“ (EPC) have been introduced by Keller, Nüttgens and Scheer and they have become a de facto industry standard in German speaking countries.
For users of Microsoft Office products, EPC shapes are being shipped with the diagramming tool Visio. A pure Visio-based creation of business processes using Visio’s EPC shapes is a great bargain and very easy to use. For use in larger projects, some basic functions of professional modelling tools are needed. Especially important is the ability to show a distinction between model objects and how they are shown in drawings, navigation tools, export / import interfaces and reports. Standard Visio shapes have no rules and they can be connected without regard of EPC methodology rules. Interfaces and reports require the syntactical correctness offered by SemTalk.

2. Starting SemTalk EPC Edition

In order to start SemTalk you can use “Start->Programs->SemTalk->SemTalk3” or the icon on your desktop. The first time you start SemTalk it will come up with the following dialog, which gives new users quick access to available modeling methods.

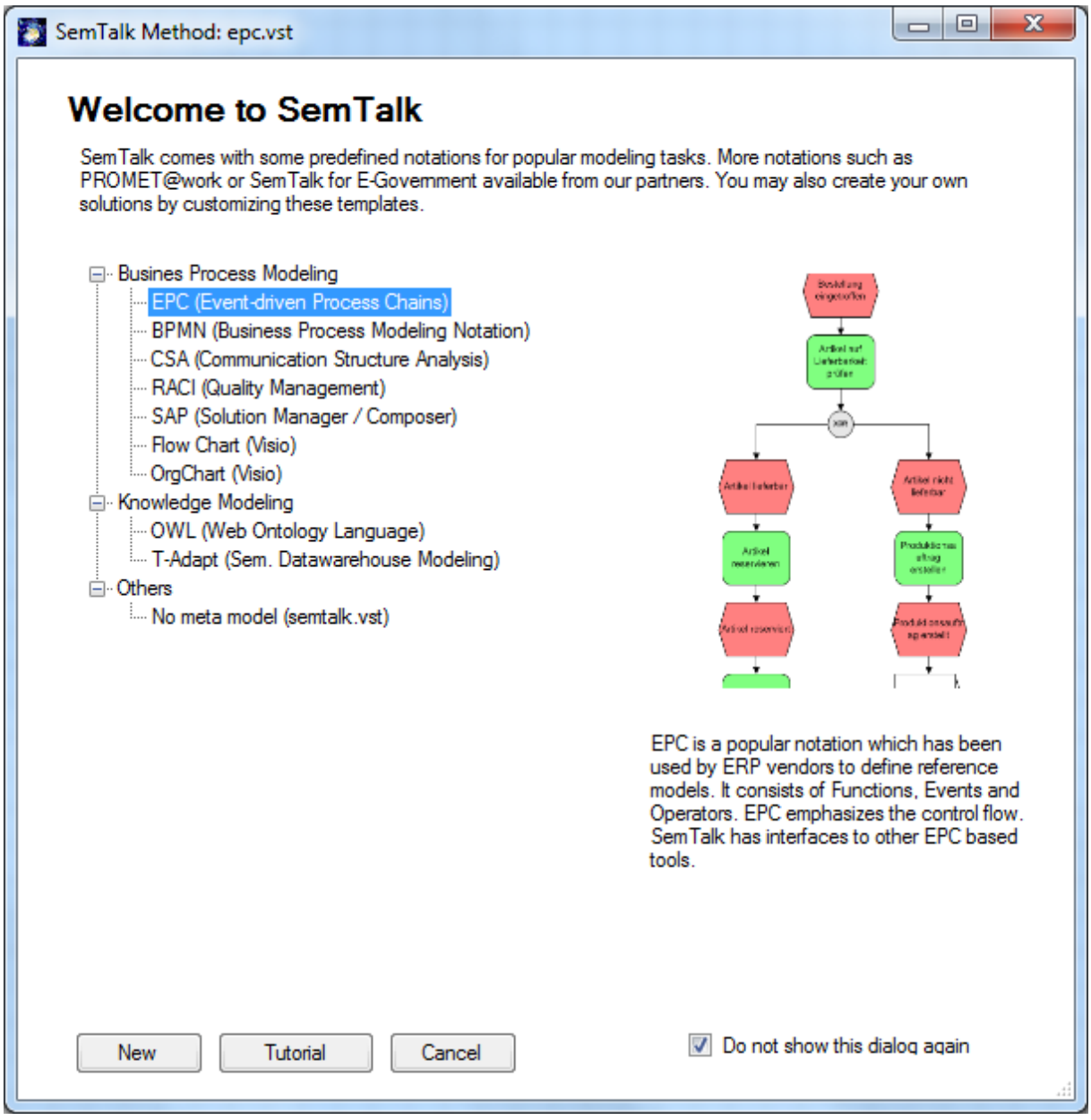


Figure 1: SemTalk Welcome Screen

Please select “New” to start SemTalk EPC Edition. If you have already used SemTalk, please open an EPC template with “File->New” and select “epc.vst”. File menu options such as “Save”, “Save As” etc. are very similar to other MS Office applications especially to Visio. Most of the Visio commands used by SemTalk can be found in the “Visio” Menu.

SemTalk shows up similar to the following screen shot:

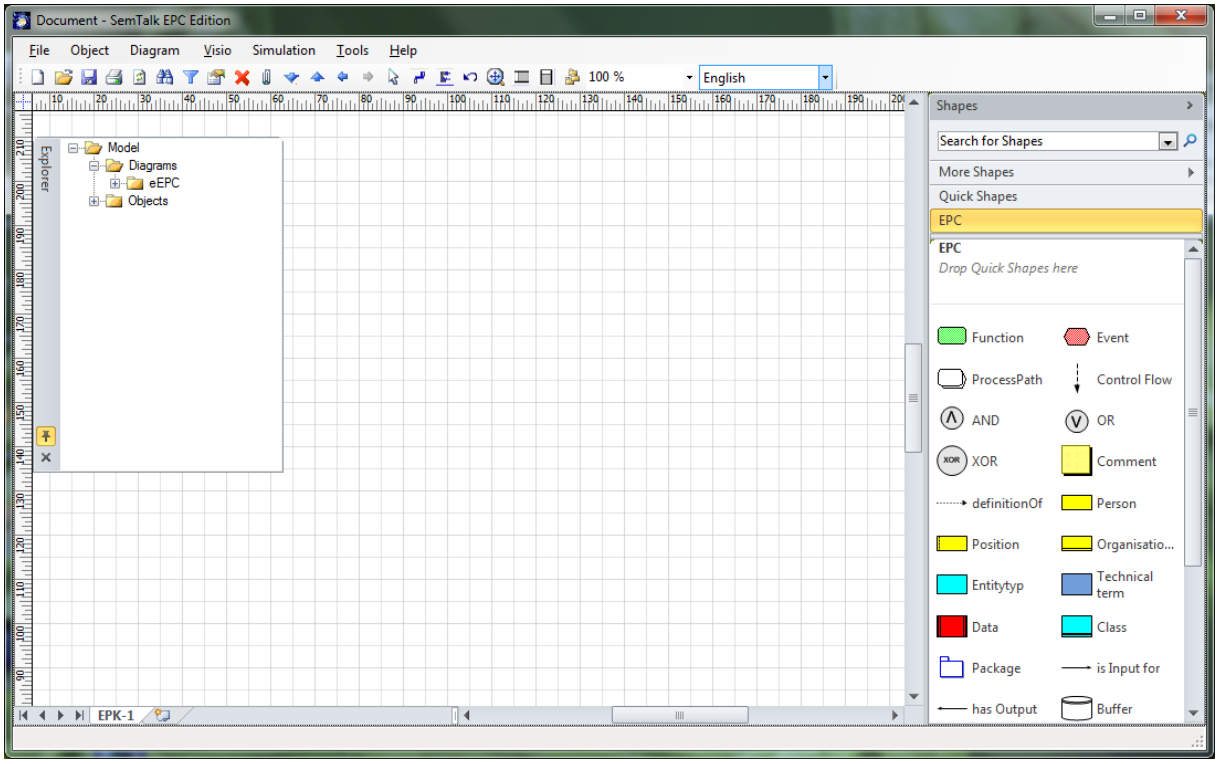
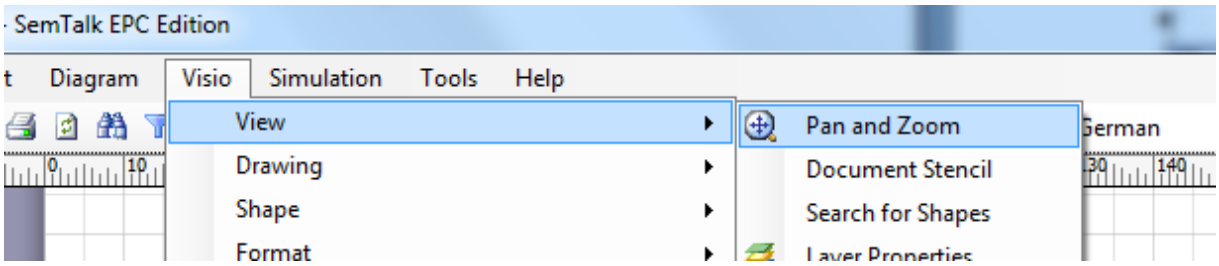


Figure 2: Starting SemTalk EPC Edition

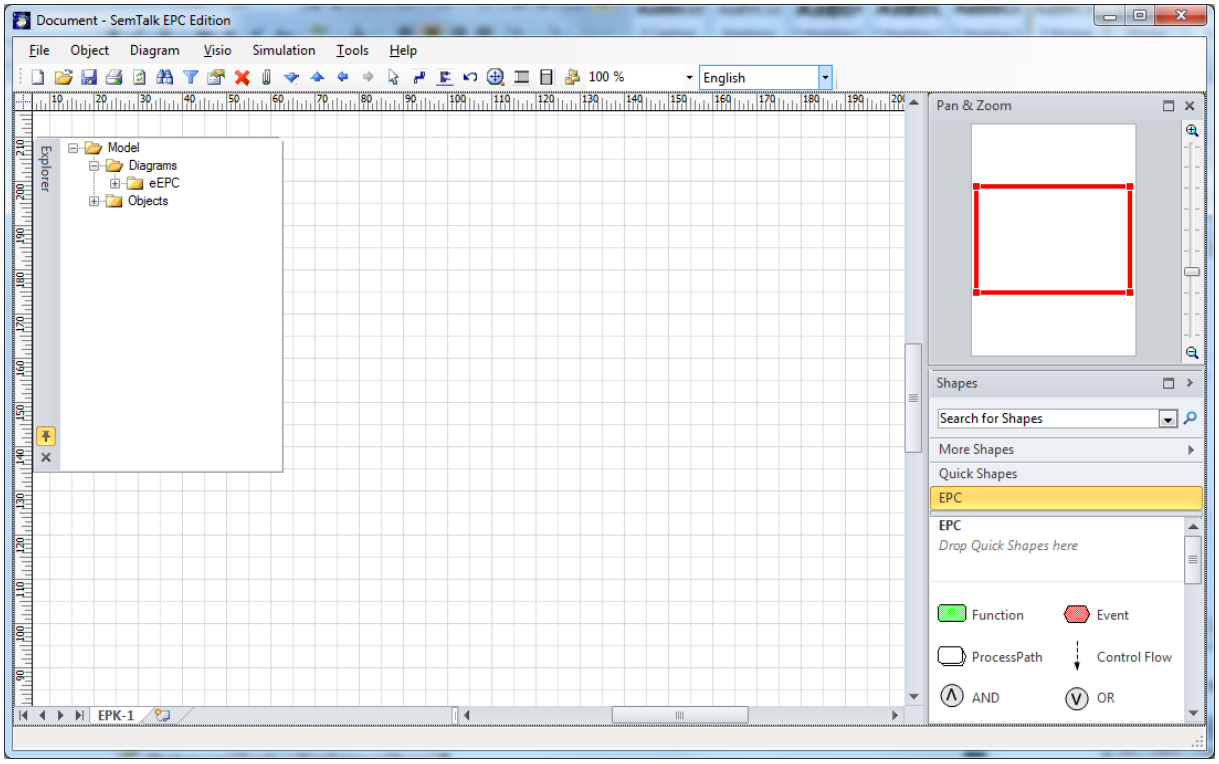
You can show the SemTalk explorer using the  Button or "Tools->Explorer->Show".
In the Explorer you will get a structured access to those objects contained in your model.

Visio's Pan & Zoom Window can be shown also:

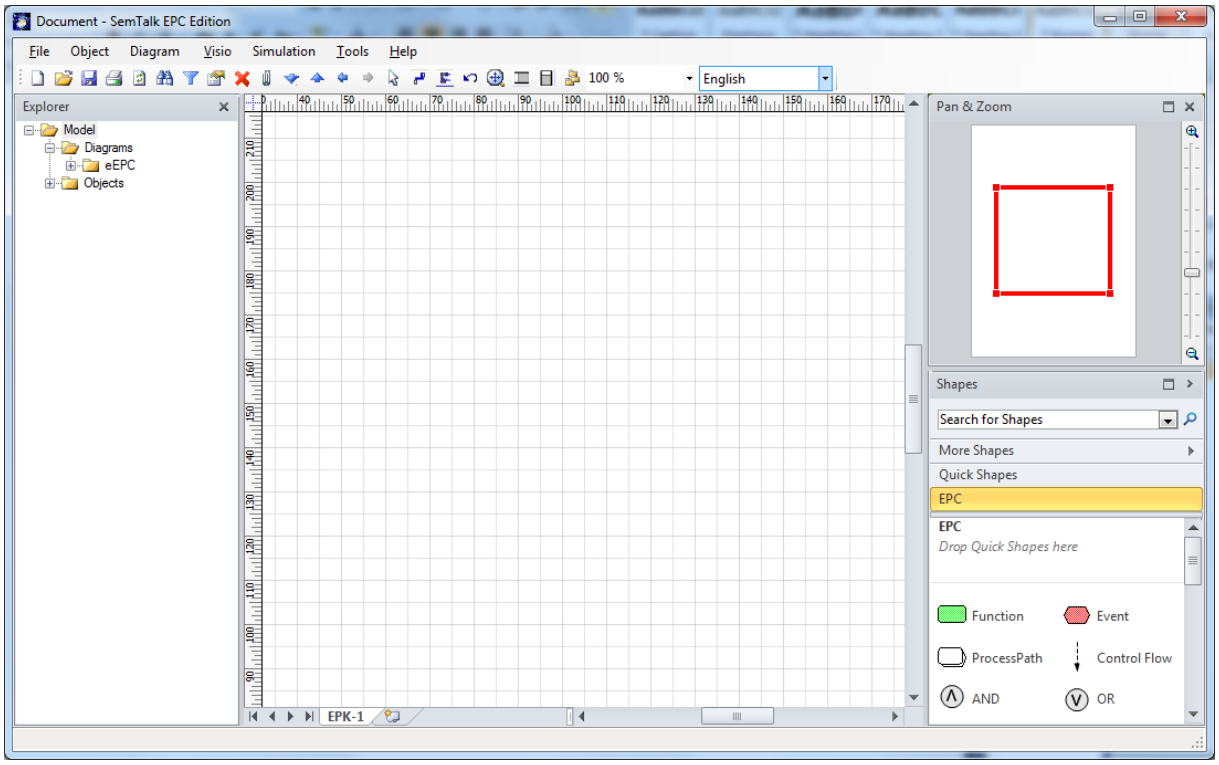
I



The Stencil Windows and the Pan & Zoom Window can be "docked" to the borders of the Visio pane with or without the Autohide mode.



It also can be attached to a border of the Visio document. See Visio's Help for details.



3. Editing a process

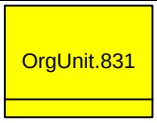
3.1. Adding Process Elements

You can add elements to the existing process: Simply drag them from the stencil to your diagram (or "process"). Objects can be renamed by selecting the object and entering the new name.

Note on EPC Methodology:

> A process is a sequence of functions, events, operators and other elements. A function is activated by one or more preceding events and it can create one or more events. But a function can have only one incoming link (Control Flow) and one outgoing link. If there are multiple events involved operators such as AND, OR; XOR must be used.

Borrowed from http://en.wikipedia.org/wiki/Event-driven_process_chain (Jan. 2007):

	Events are passive elements in EPC. They describe under what circumstances a function or a process works or which state a function or a process results. Examples of events are "requirement captured", "material on stock", etc. In the EPC graph an event is represented as hexagon
	Functions are active elements in EPC. They model the tasks or activities within the company. Functions describe transformations from an initial state to a resulting state. In case different resulting states can occur, the selection of the respective resulting state can be modeled explicitly as a decision function using logical connectors. Functions can be refined into another EPC. In this case it is called hierarchical function. Examples of functions are "capture requirement", "check material on stock", etc. In the EPC graph a function is represented as rounded rectangle. In general, a EPC diagram 'must' start with event and end with event.
	Organization units determine which person or organization within the structure of an enterprise is responsible for a specific function. Examples are "sales department", "sales manager", "procurement manager", etc. It is represented as an ellipse with a vertical line.
	In the EPC, the information, material, or resource objects portray objects in the real world, for example business objects, entities, etc., which can be input data serving as the basis for a function, or output data produced by a function. Examples are "material", "order", etc. In the EPC graph such an object is represented as rectangle.
	Branch and merge correspond to making decision of which path to choose among several control flows. A branch may have one incoming control flow and two or more outgoing control flows. When the condition is fulfilled, a branch activates exactly only one of the outgoing control flows and deactivates the others. The counterpart of a branch is a merge. A merge may have two or more incoming flows and one outgoing control flow. A merge synchronizes an activated and the deactivated alternatives. The control will then be passed to the next element after the merge. A branch in the EPC is represented by an opening XOR, whereas a merge is

	represented as a closing XOR connectors.
	Fork and join correspond to activating all paths in the control flow concurrently. A fork may have one incoming control flow and two or more outgoing control flows. When the condition is fulfilled, a fork activates all of the outgoing control flows in parallel. A join may have two or more incoming control flows and one outgoing control flow. A join synchronizes all activated incoming control flows. In the EPC diagram how the concurrency achieved is not a matter. In reality the concurrency can be achieved by true parallelism or by virtual concurrency achieved by interleaving. A fork in the EPC is represented by an opening 'AND', whereas a join is represented as a closing 'AND' connectors
	An 'OR' relationship corresponds to activating one or more paths among control flows. An opening 'OR' connector may have one incoming control flow and two or more outgoing control flows. When the condition is fulfilled, an opening 'OR' connector activates one or more control flows and deactivates the rest of them. The counterpart of this is the closing 'OR' connector. When at least one of the incoming control flows is activated, the closing 'OR' connector will pass the control to the next element after it.

Adding links is quite simple. Drop the "Control Flow" shape somewhere on the background. If you hover its ends over an object's "connections point" you are notified by a red square that you can glue the relation to that object. Select an ending point and glue your relation to the objects of your choice.

After adding some elements and connecting them with the "Control Flow" connector your diagram looks like this one:

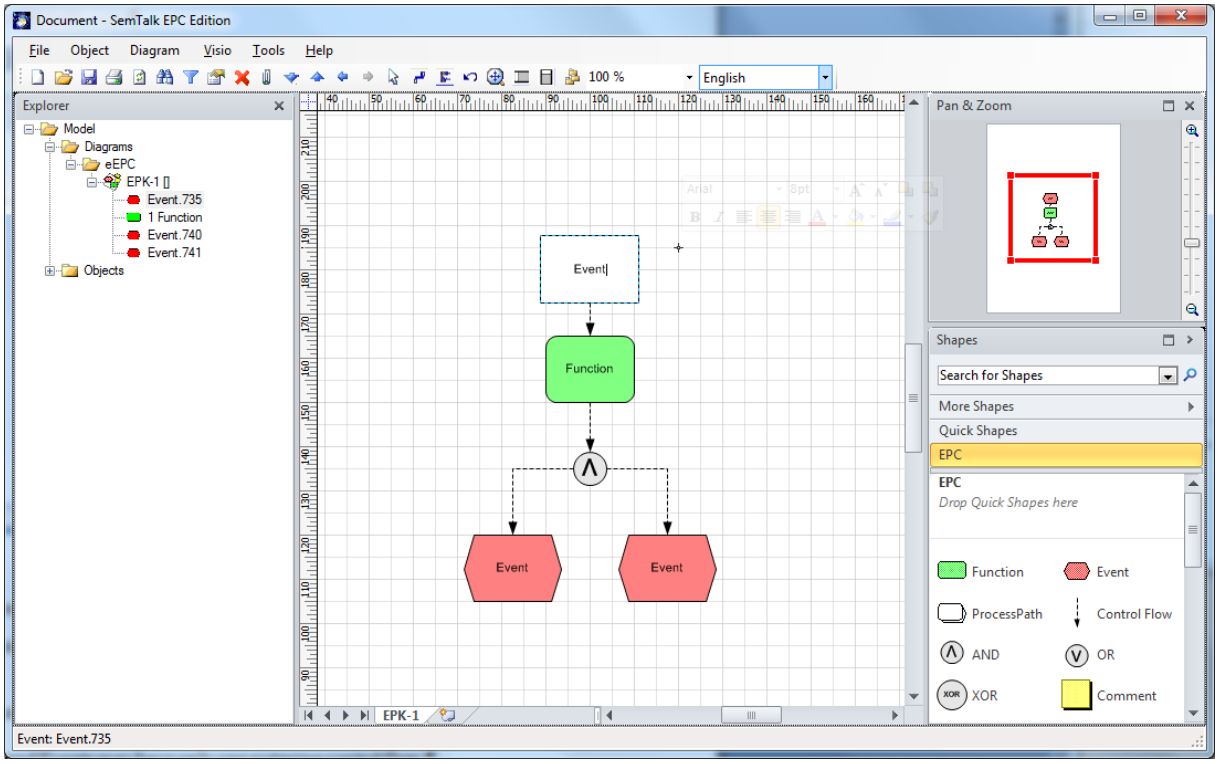


Figure 3: Adding Process Elements

To speed up the creation of diagrams the stamp tool and the connector tool are very useful (both from the Visio-Menu). The connector tool is also available from the toolbar  .

SemTalk performs a syntax check on the following rules:

- Functions and Events may have only one outgoing control flow.
- Functions and Events may have only one ingoing control flow
- Each control flow must connect two different objects
- It is not allowed to use an OR or XOR operator after an event, since events are passive elements, which can make no decisions as functions do
- Operators may have multiple inputs (Join) or multiple outputs (Split), but not both
- Outputs of an operator must be of all of type function or all of type event
- Inputs of an operator must be of all of type function or all of type event
- Events and functions must be used alternating

SemTalk does NOT check the following useful rules in order to make graphical modeling possible:

- Joins and Splits are modeled by operators. If a process was split by an operator, the process may only be joined be the same type of operator
- Each EPC must start and finish with an event. (exception: process path)
- There are no isolated nodes
- At least one event must precede a function and at least one event must follow each function.

You may turn off EPC syntax checking via Tools->SemTalk Options->EPC. This is recommended if you import EPC from 3rd Party Tools or certain reference models ;-)

There are basically two ways how to express that a function is executed by a Person, Position or an Organizational Unit:

1. Add their Shapes to the process and connect them with the function using the "executes" connector or the connector tool. The disadvantage of this "classical" approach is that diagrams often get overloaded with symbols and become difficult to read. This approach is recommended, if the control-flow itself is more important than the exchange between actors.
2. Using Swim lanes

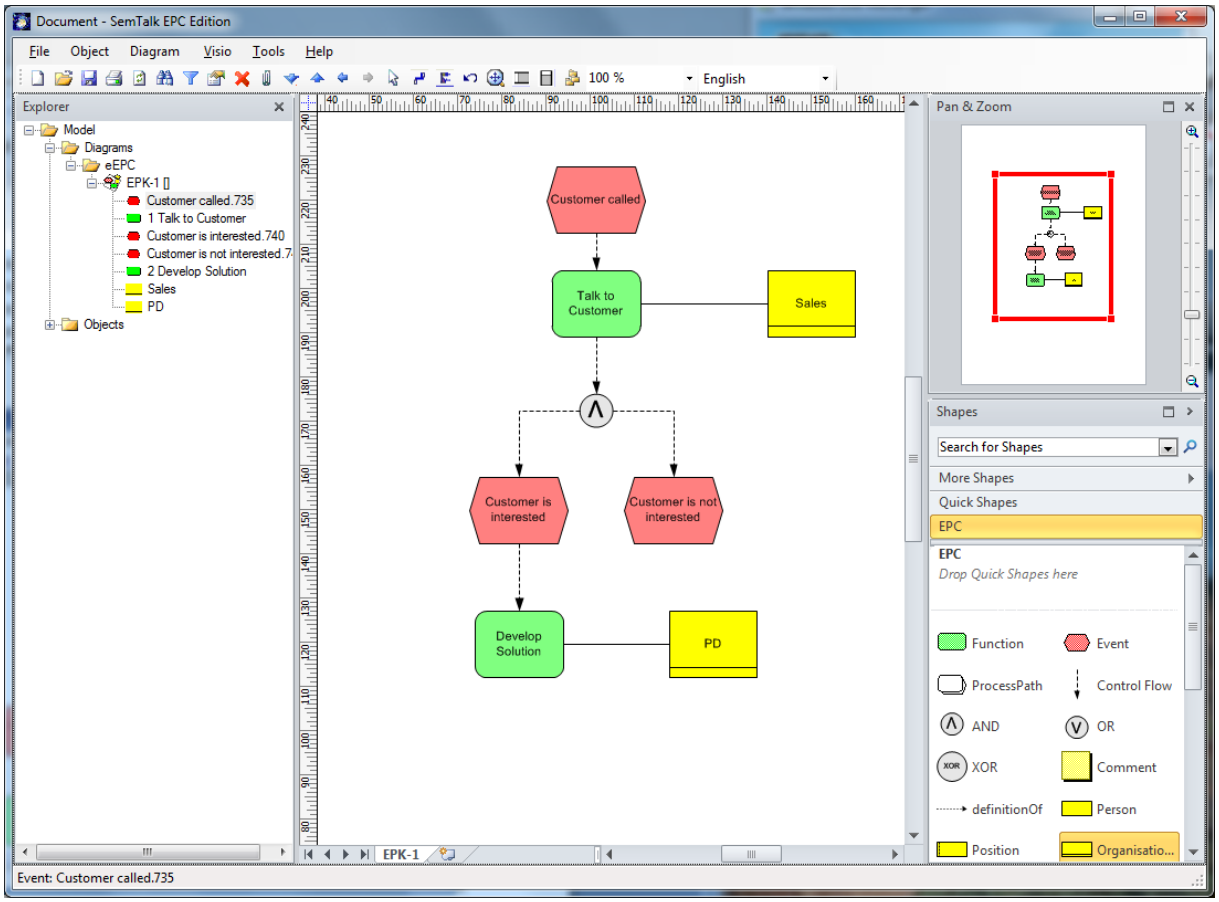
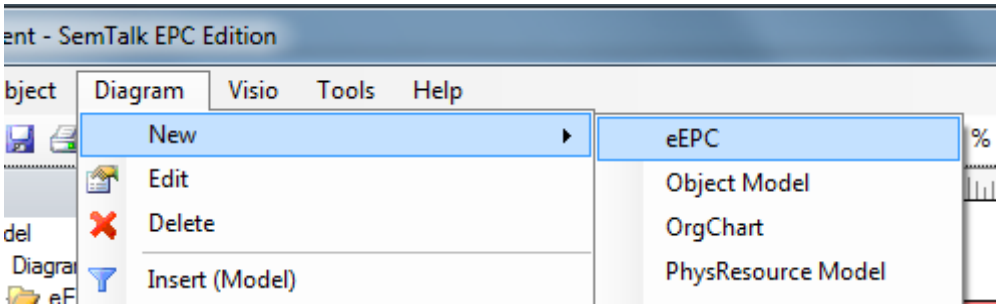


Figure 4: Classical eEPC

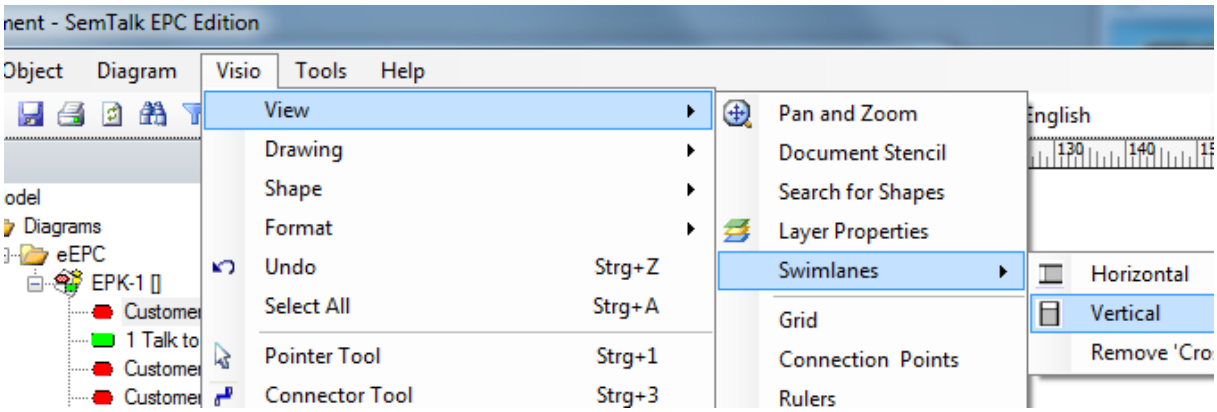
3.2. Using Swimlanes

Let us first add a new EPC diagram:



This will create a new Visio Page of diagram class “eEPC”. You can rename that page directly by renaming the tab or a via a SemTalk dialog (Right Click-> Edit on the background or the menu item “Diagram->Edit”

Swimlanes are well known from Visio’s Flowcharting stencil. They can be used via the command buttons  or the Visio Menu of SemTalk.



After dropping functional bands on the drawing you can select existing roles or org. units via the right click menu. (“Select Resource”).

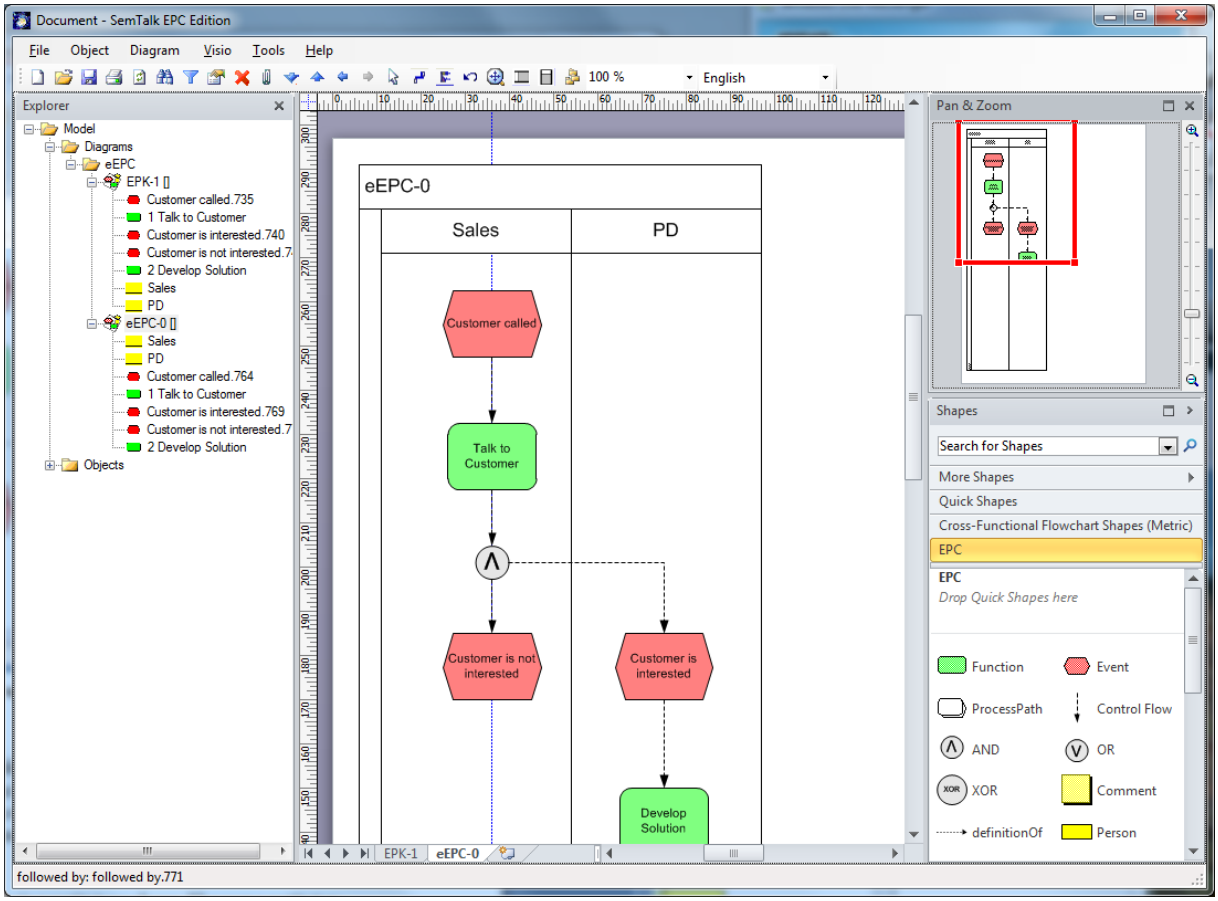


Figure 5: EPC with swim lanes

If you move a function to a swim lane this is detected by SemTalk and the function will be assigned automatically to the role of the swim lane.
If you select the head of a swim lane, you can create new roles just by renaming the swim lane. Via the right-click menu on the swim lane you can select existing roles and edit the objects.

Inputs and outputs of functions are specified using entitytype shape. The same entitytyp element can be used multiple times in the model and on a page (such as events, org. units, persons etc.)

An EPC diagram using the elements mentioned above might look like:

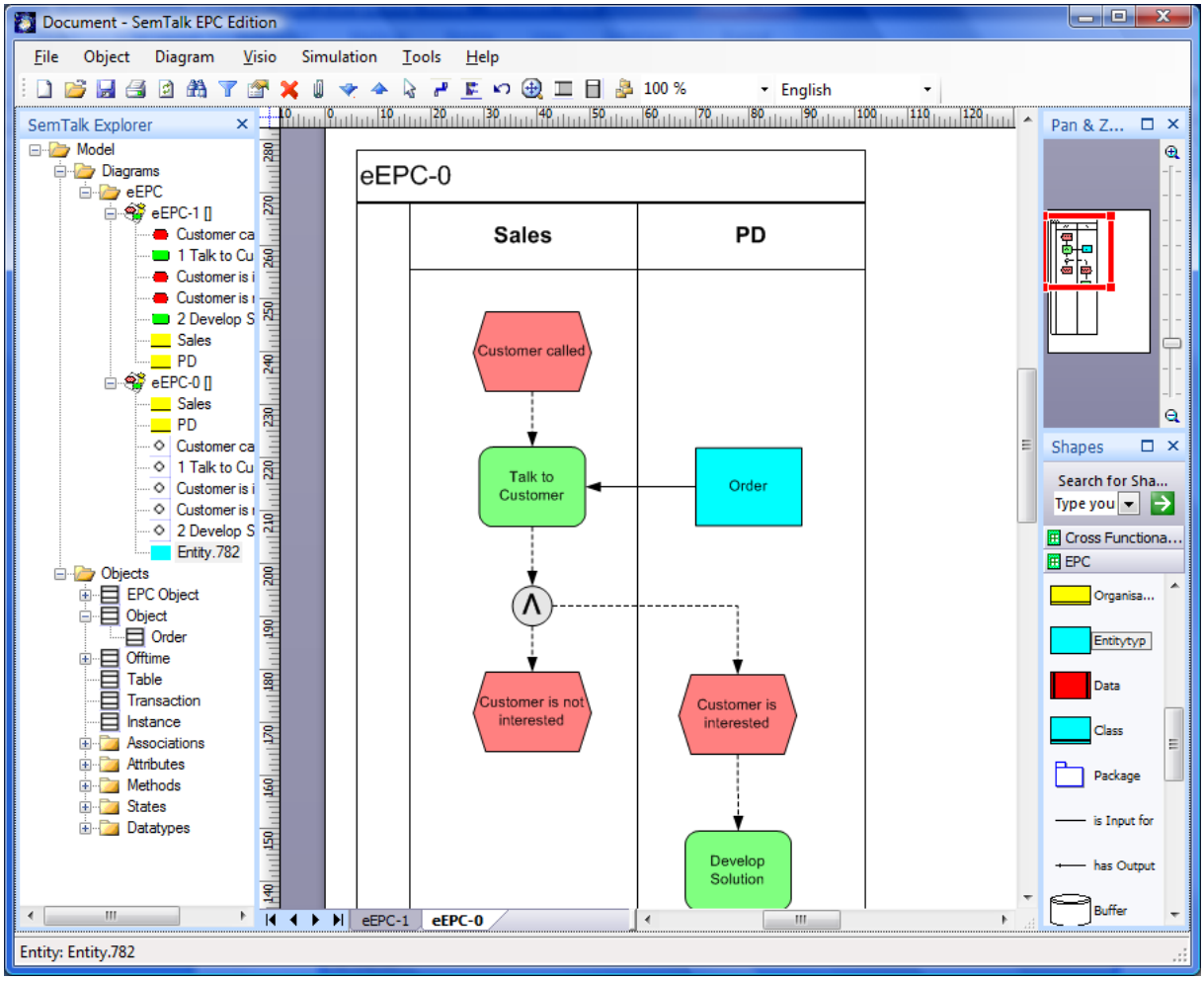


Figure 6: EPC with swim lanes and input / output

3.3. Object oriented process modeling

If you select the menu „Object->Compose“ or right click compose, you will have the option to specify object oriented functions and events.

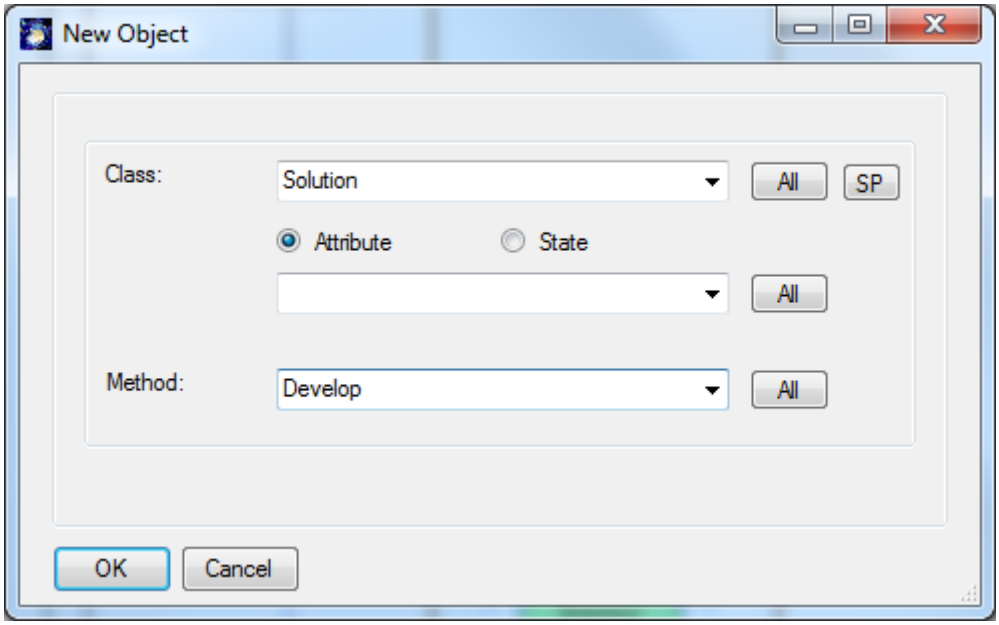


Figure 7: Composing object oriented functions

Class is the business object the function is related to. You can reuse existing classes or create new classes in a bottom up style. E.g. "Bid" is the class at "make Bid"

The options **State** and **Attribute** allow to specify which of these feature will be used to create the function name. For the EPC methodology only methods are relevant for functions and states are relevant for events.

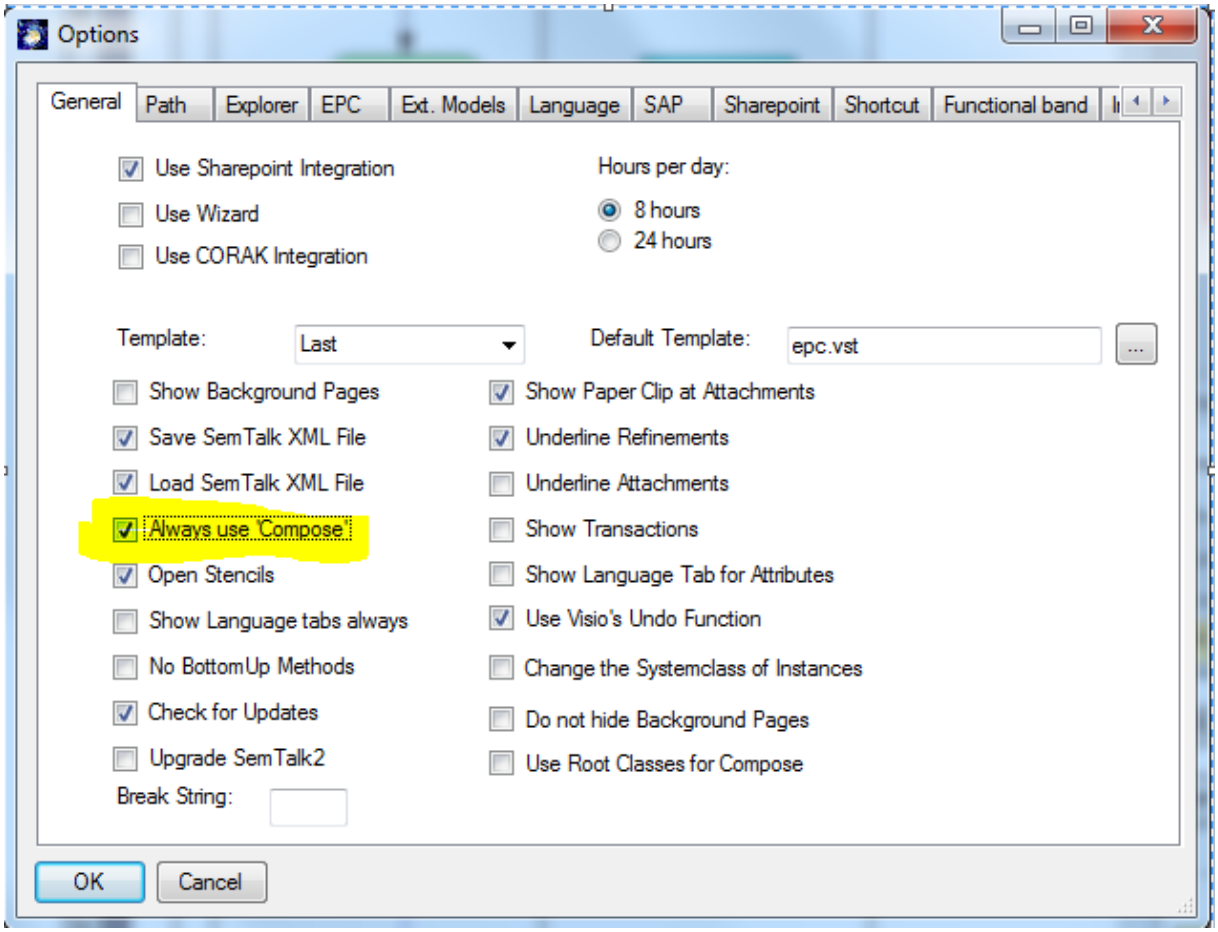
In the combo box **Method** the name of the method (or verb) can be entered newly or be selected from the already defined methods of the class

SemTalk creates the class and method in case they are not existing yet in the database. In our example a class named "order" with the method "enter" will be created.

The whole idea about compose is, that the name of the function is generated from the name of the class and the name of the method. If classes or methods are being renamed, the name of the function is being updated. Note that methods (as well as attributes and state) can be inherited from super classes.

The order of how the name of the function will be generated is language specific („Order Enter" or "Enter Order"). You can change this as a general setting in the SemTalk options dialog. For English you will use "Method Object".

You can also specify to use "Compose" on any new function or event:



A new created eEPC with some object oriented functions and events:

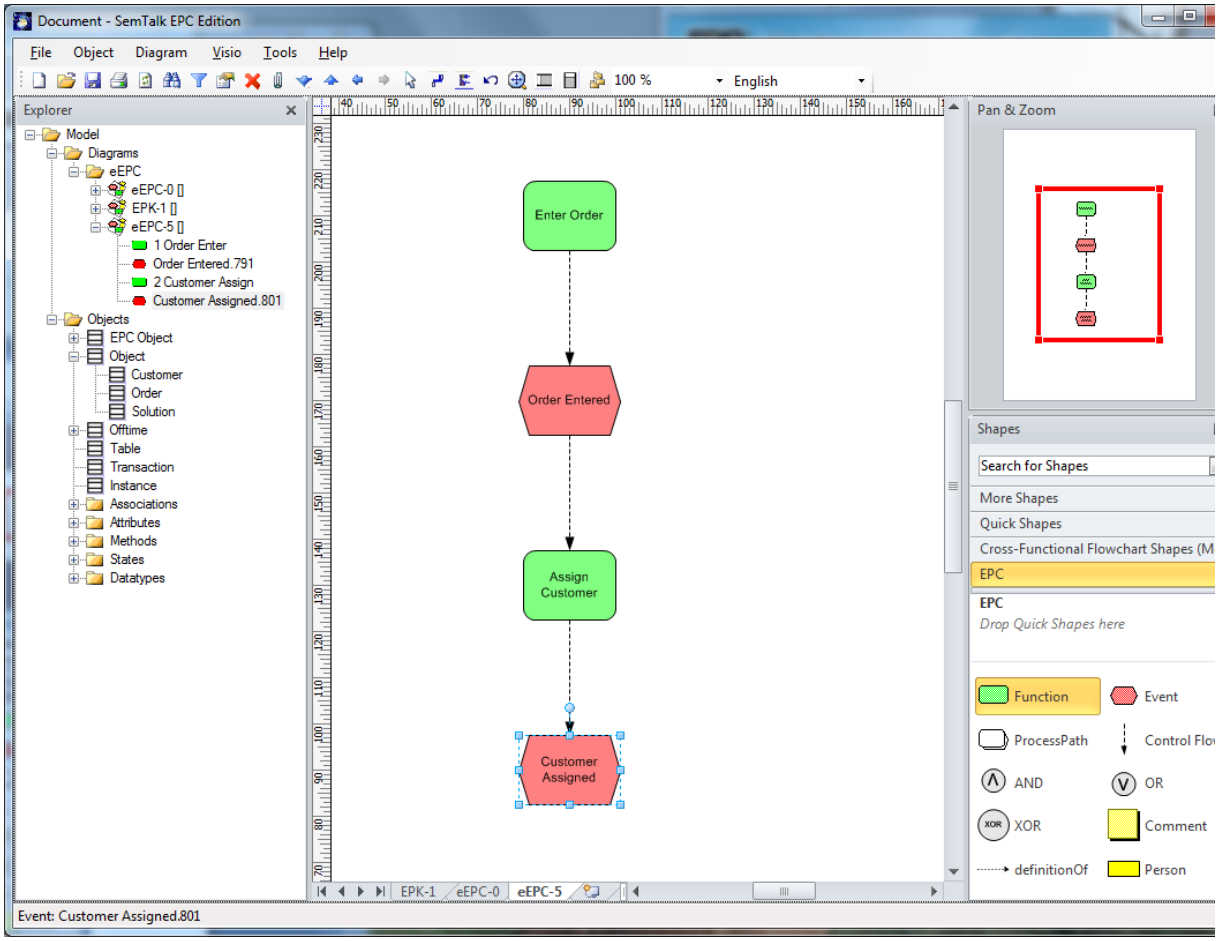


Figure 8: An object-oriented EPC

The objects “Order” and “Customer” are created in the background. A diagram of these (and some others) will look like this:

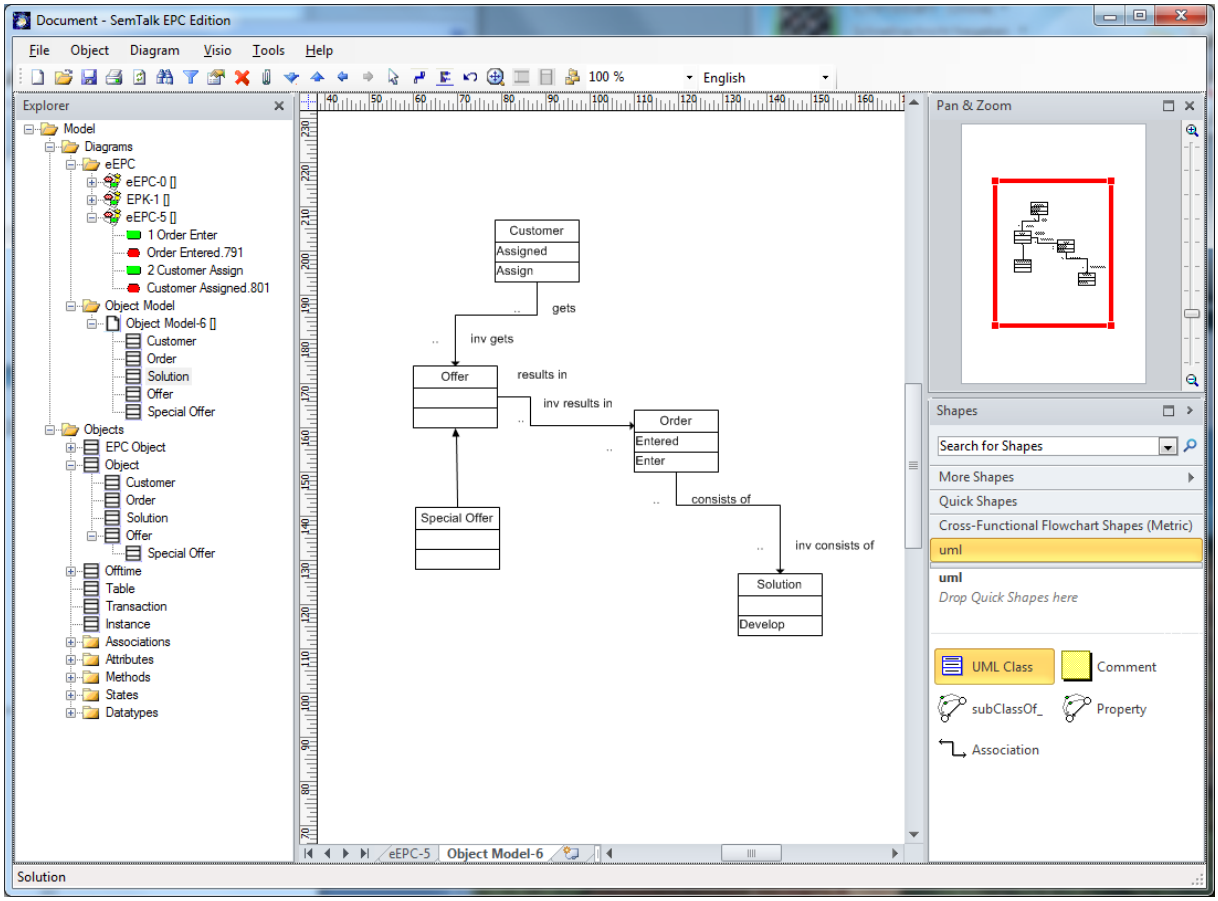


Figure 9: Object Model

If you make „Special Offer“ a subclass of „Offer“. “Special Offer” will inherit all methods from “Offer”. In the compose dialog those inherited methods will be shown in the method combo box.
SemTalk ensures the consistency between object models and process models. If you rename a class or method all depending functions will be updated.

We recommend object oriented process modeling especially for large projects. It is a good idea to define in a first step the most important business objects and build a catalogue of methods (verbs). This is the foundation of consistent process models.

If you are going to use the same business objects in multiple projects we recommend to store such object libraries in separated files and publish them on intranet or extranet. The SemTalk Wizard will ensure, that those libraries are used consistently.

3.4. Editing process elements

You can now edit the objects on your diagram:

1. By double clicking or
2. Right Click “Edit” or
3. Select & Menu “Object->Edit” or
4. Find it in the explorer as a child of “Diagrams->EPC->EPC-3” or
5. Find it in the explorer as a child of “Objects->”.

In case you just want to rename to object, you can select it and type-in the new name.
You may also use the Properties Window, which allows to review and change the values directly. (Tools->Explorer->Properties)

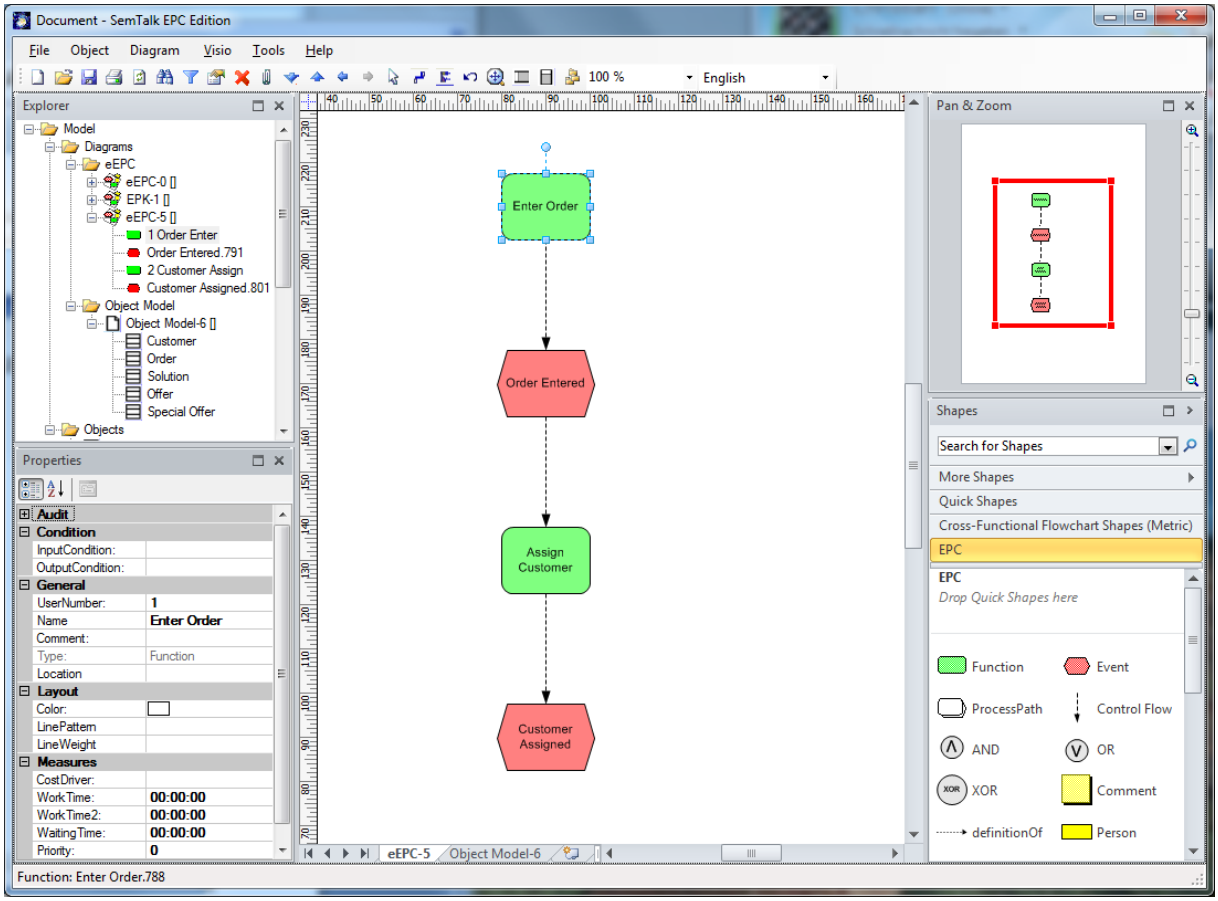


Figure 10: Properties Window

3.4.1. Function Dialog

The function dialog looks like:

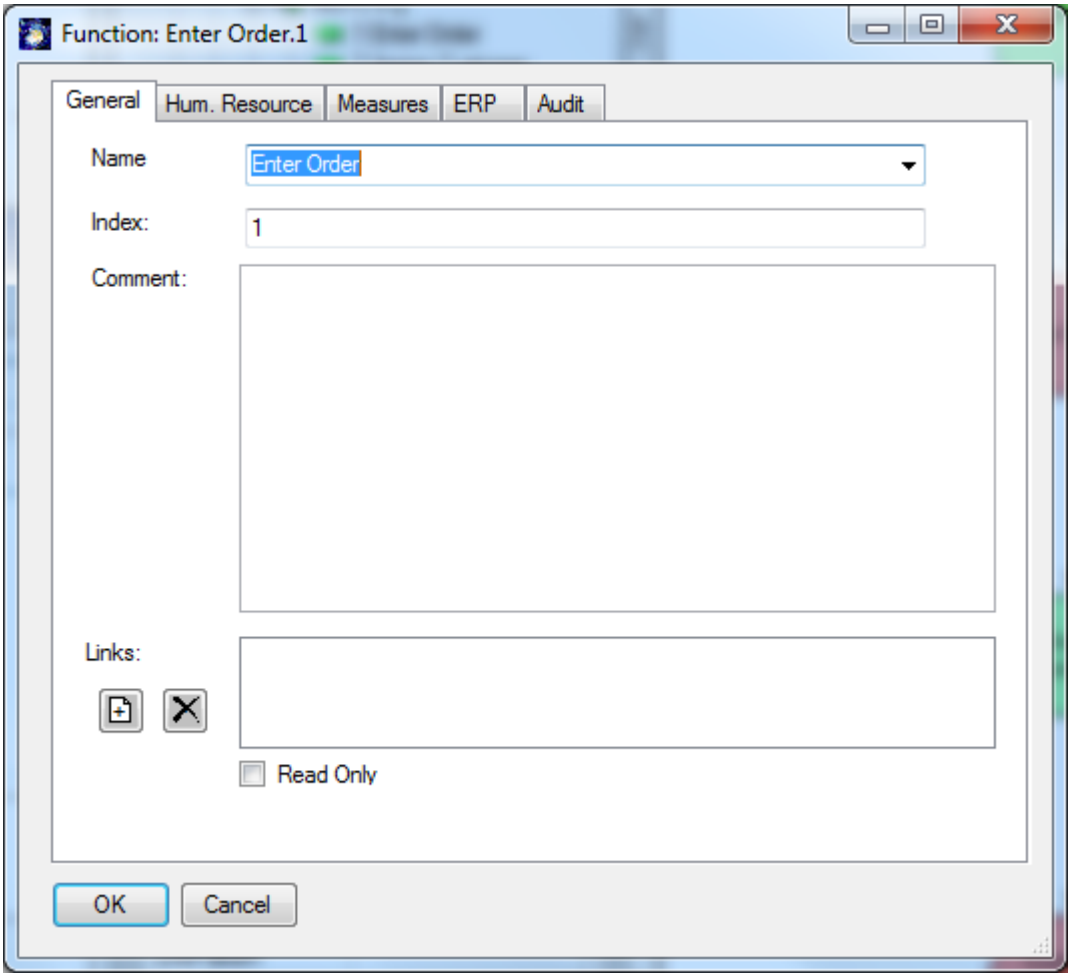


Figure 11: Function Dialog

Note EPC Method:

> We are using the term function call to refer to a step in a process. Each function call is an (anonymous) instance of its function. E.g. *enter Order* is the function and *enter Order.123* a function call in a process.

Links (hyperlinks, attachments, documents), can be added with the right click menu "New" ("+" button), changed and removed by the right click menu "Remove" ("-" button) on the background of the links list. Double clicking the link in the listbox opens that document with the (for windows) associated application. Functions having at least one link will show up with a little marker in the upper left corner.

NOTE: In order to change all occurrences of the function you must edit the class itself using "Edit Class".

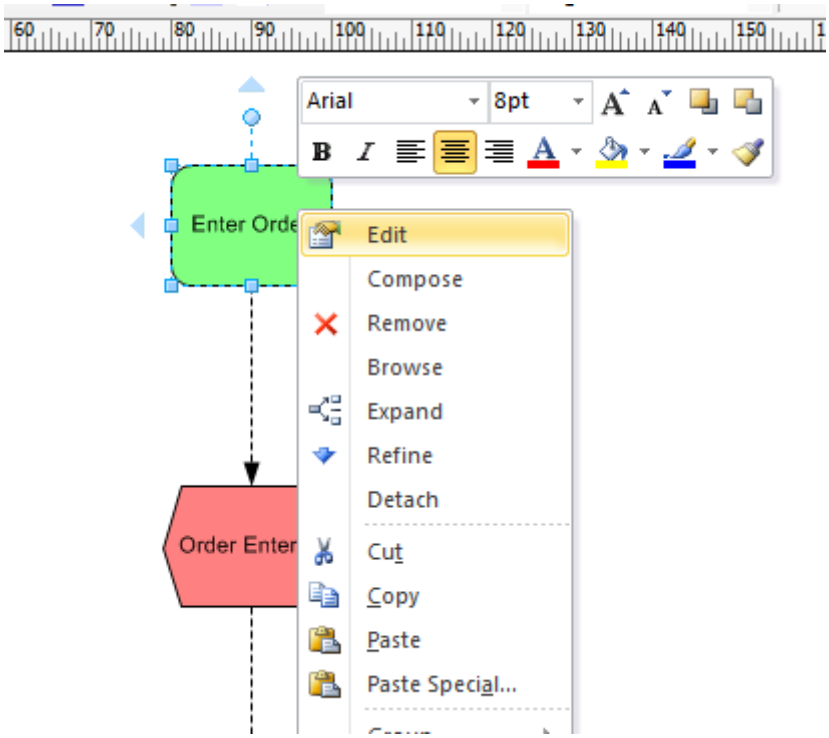


Figure 12: Edit & Compose a Function Class

NOTE: The “General” tab is a generic SemTalk tab and not an EPC specific one.

3.4.2. Function “Hum. Resource” Tab

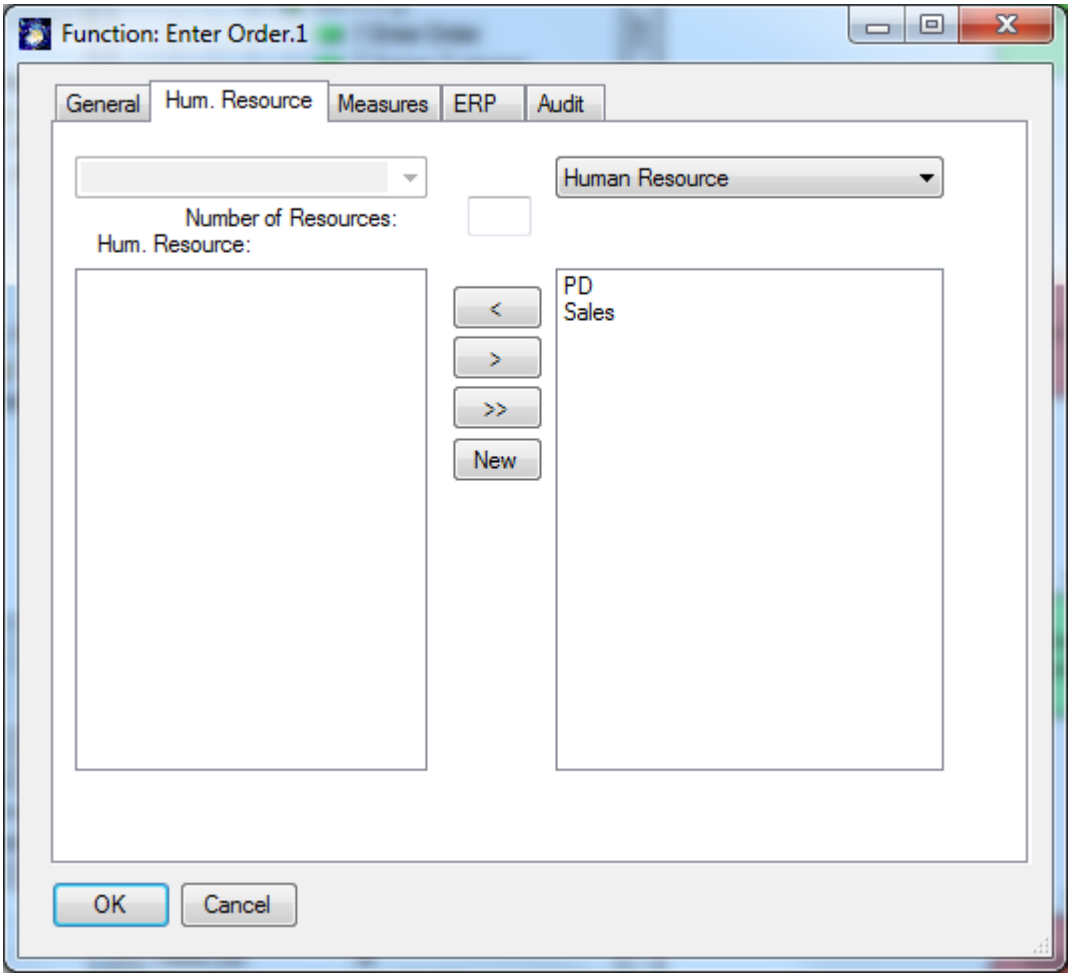


Figure 13: Function: Hum. Resource

On the "Hum. Resource"-tab you can assign "Human Resources" to the function. These are people, roles or organizational units which actually execute the function. The left hand list box shows the currently assigned resources and the right hand list box shows the list of all available human resources.
You may use the arrow buttons to add / remove resources. Double clicking in the list boxes will edit the resource.

The right combo box having the selection "Human Resource" allow to filter resources by class.
The left combo box having the selection "executes" allows" to specify certain types of execution such as "controls" or "supervised by".[1]

Using the new button you can add new human resources and new human resource classes. The new instance will automatically get the class which is selected in the combo box.

[1] These could be defined as subclasses of the relation "executes"

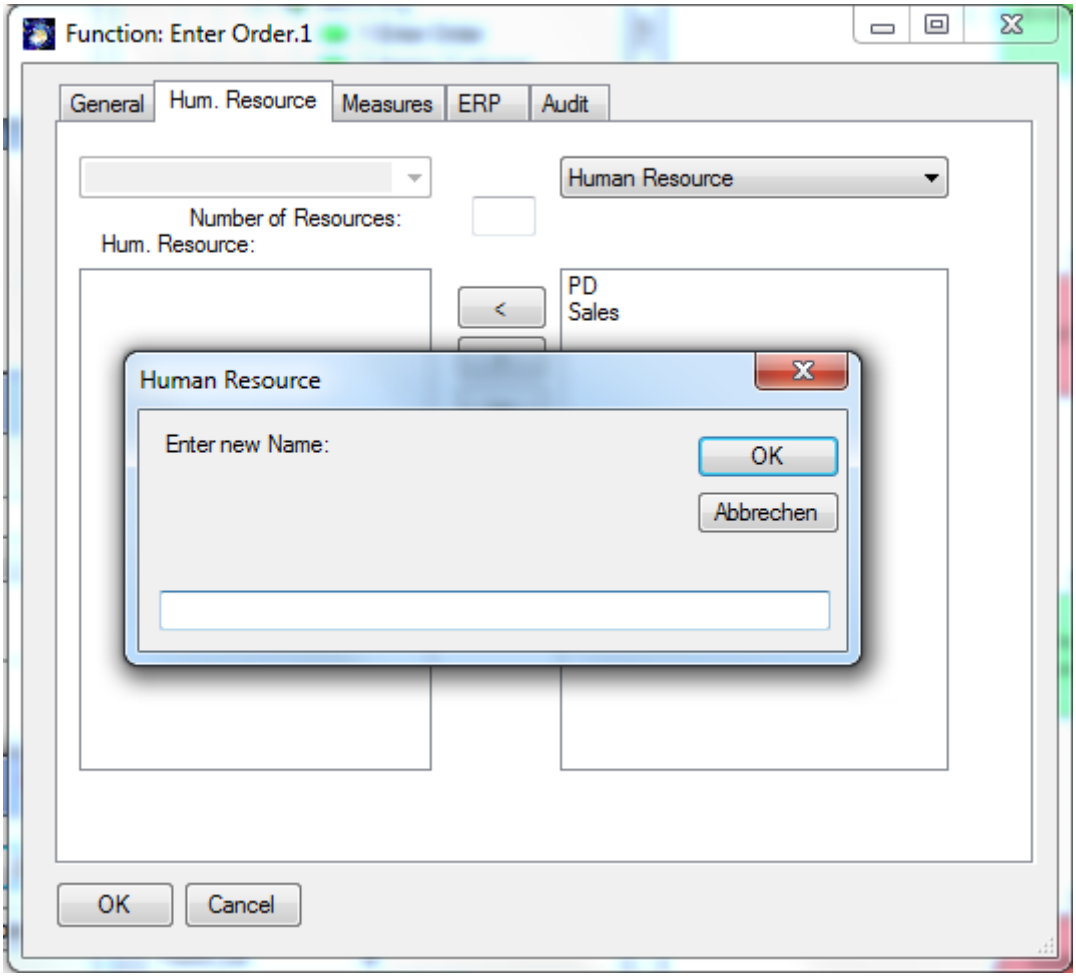


Figure 14: Adding new Human Resources

You can see / edit all existing resources in the explorer as child nodes of "Human Resource"

3.4.3. Function "Measures" Tab

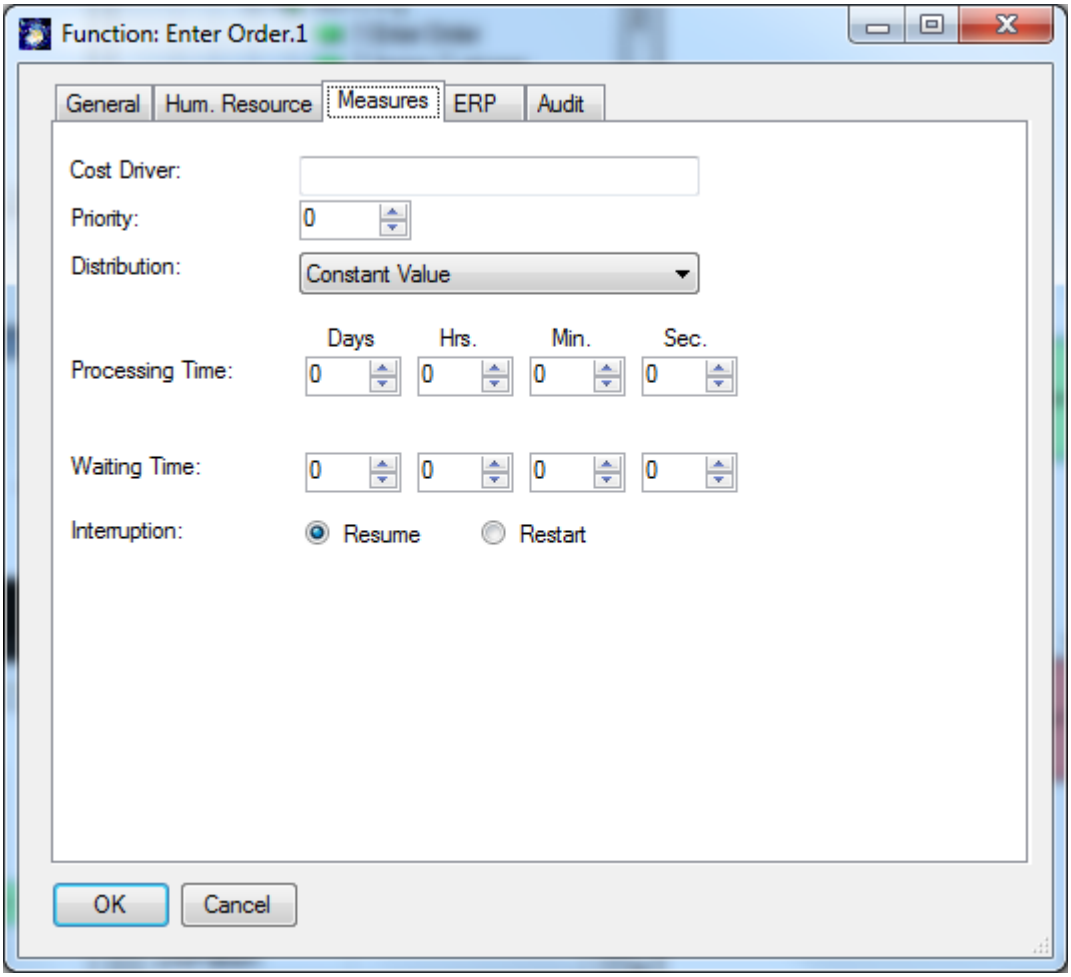


Figure 15: Function: Measures

Relevant for simulation, the workplan report, MS-Project etc is especially the "Processing Time". For all others please see the Simulation Tutorial.

3.4.4. Function "ERP" Tab

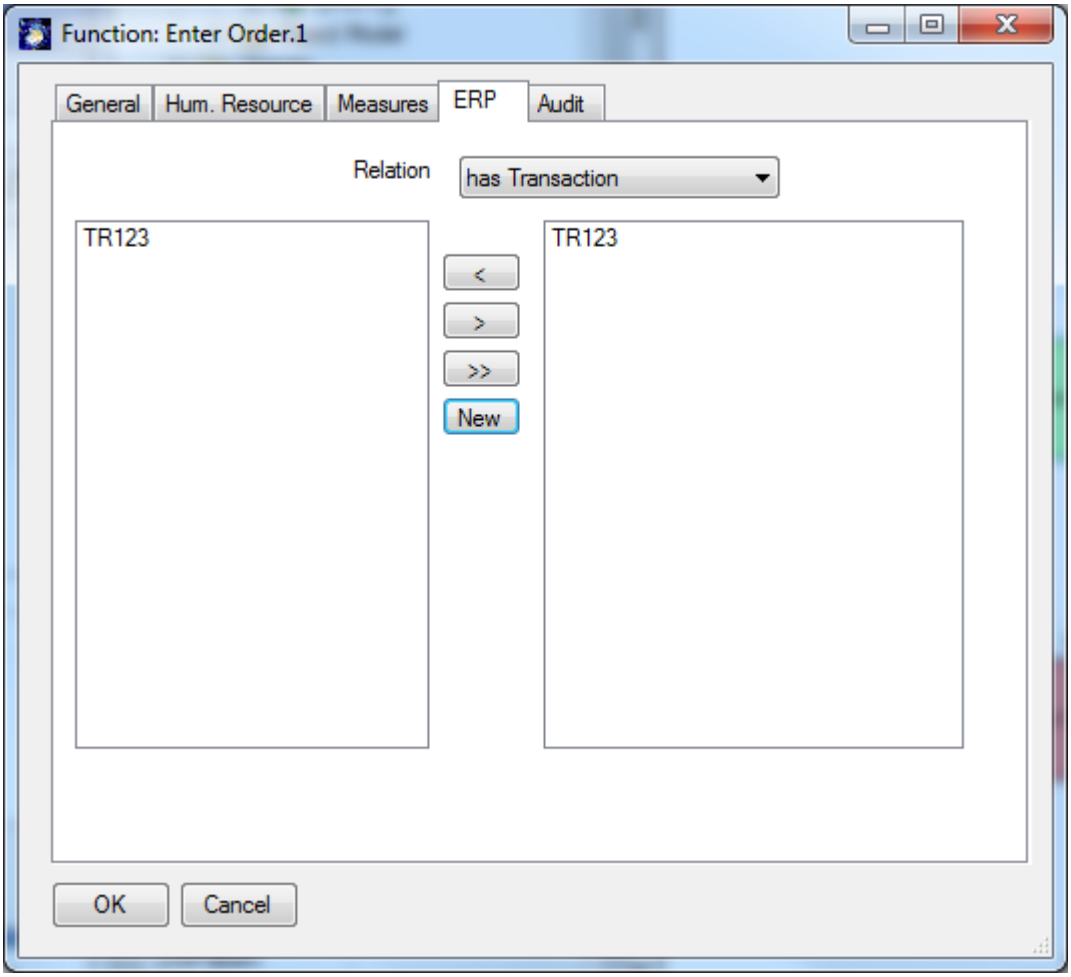


Figure 16: Function: ERP

Using this tab transaction IDs and input / outputs can be specified. If you use the SAP R/3 import transactions will be associated from the reference model. Functions have at least one transaction will be drawn with a thicker border.

3.4.5. Control Flow Dialog

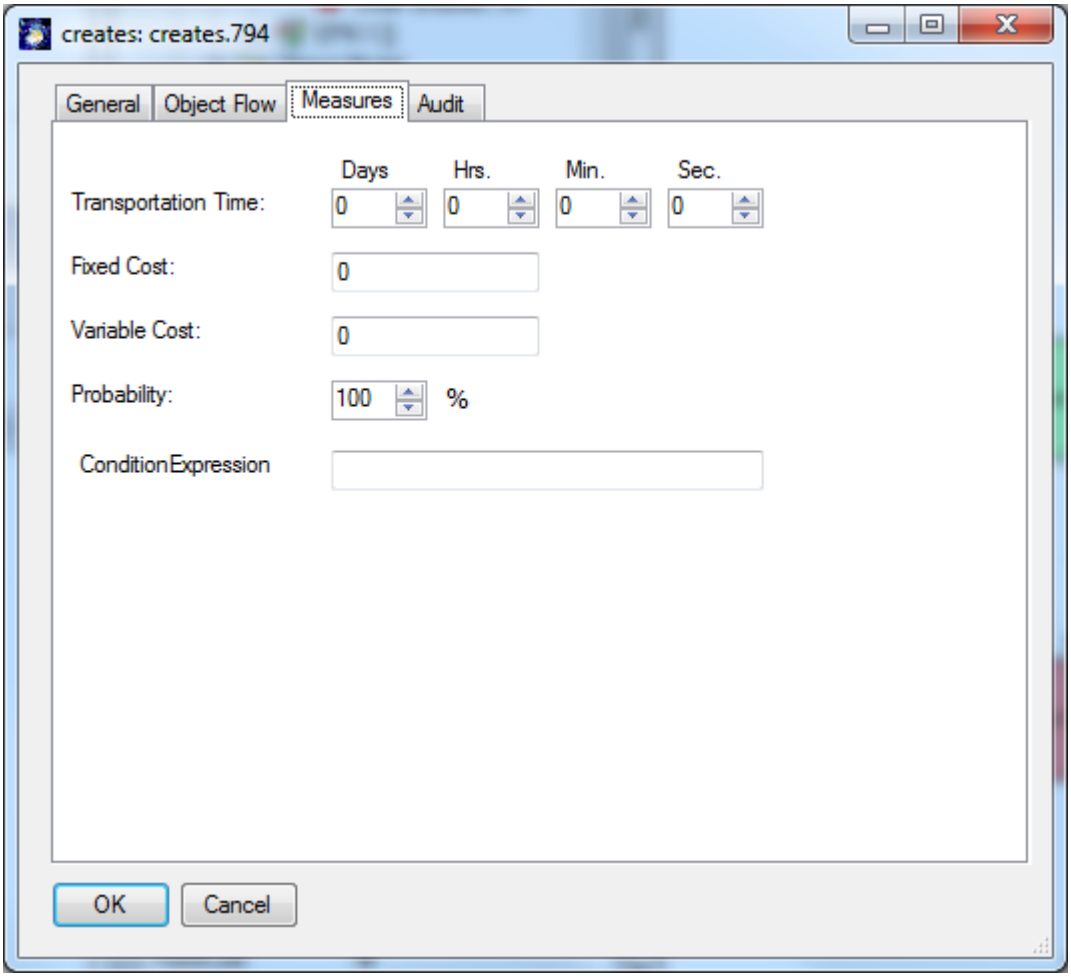


Figure 17: Control Flow: Measures

The “Measures” tab allows the specification of transportation time, fixed cost, variable cost and probability.

NOTE: You can glue relations to any point on the object if you select the Visio option “Glue to geometry”

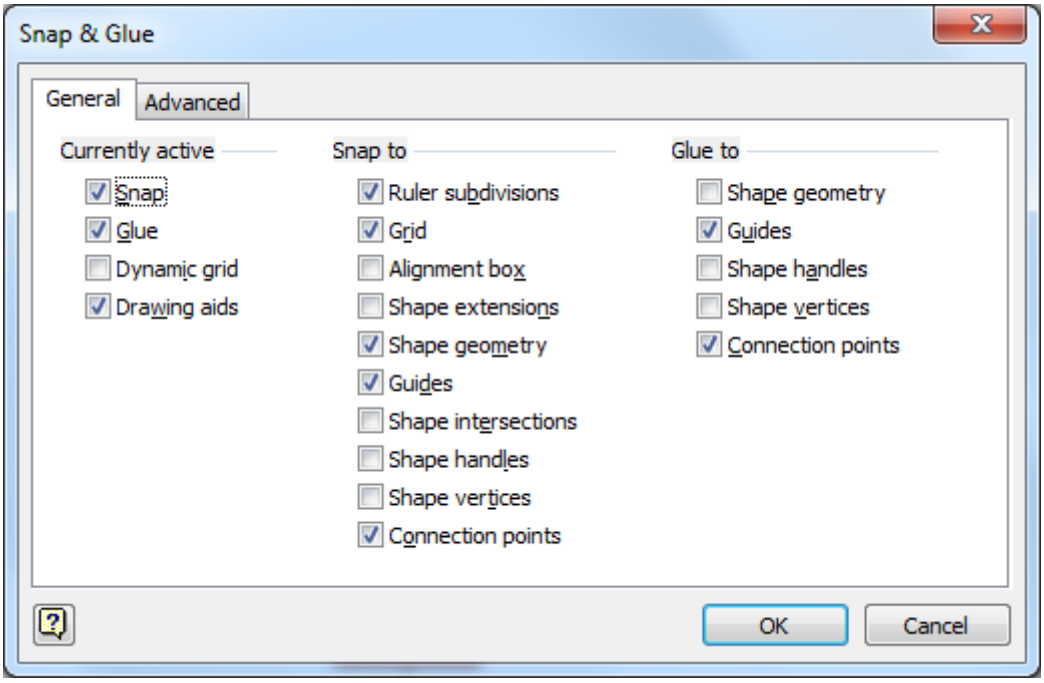


Figure 18: Visio: Snap& Glue Options

4. Value Chains

Using a Value Chain diagram ("Diagram->New->Value Chain") you can describe processes which are directly creating value for your company. Value Chain Elements (Functions) are connected with the connectors "is superior of" and "has Successor"

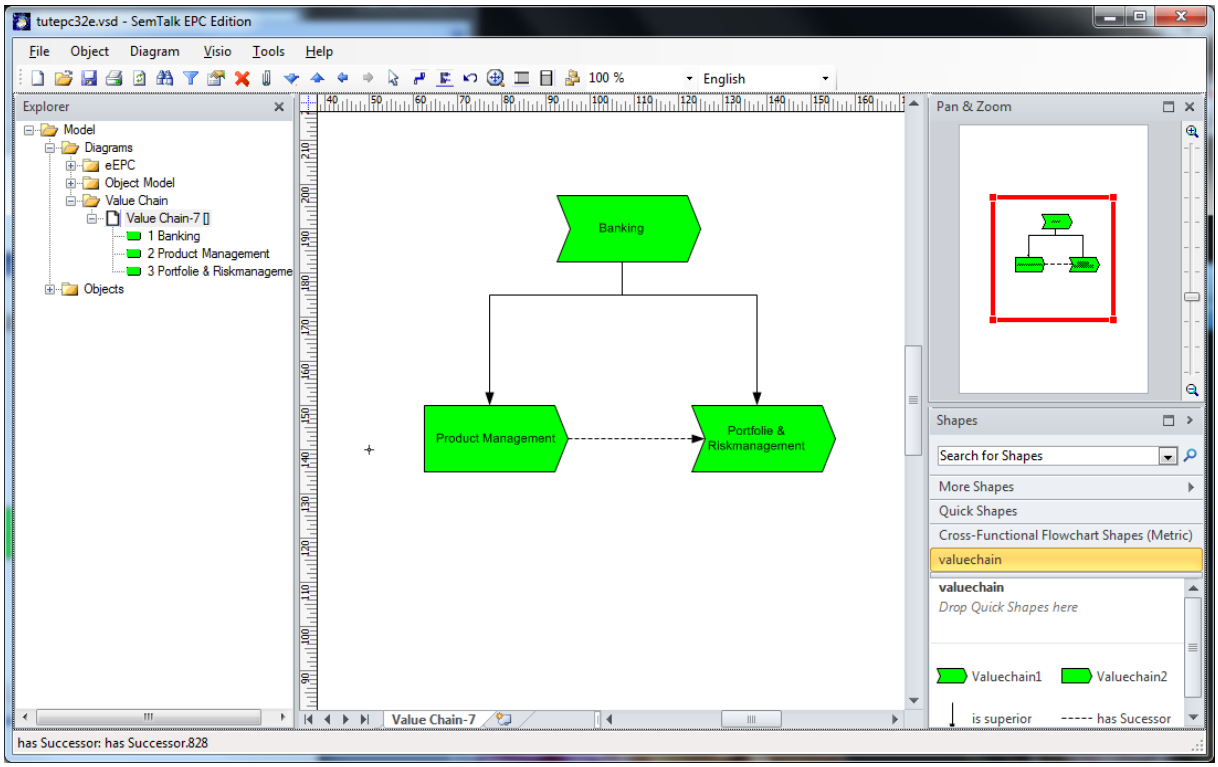


Figure 19: Value Chain

Value Chains do not contains events or other symbols. They are intended to be used as a general overview of the process landscape.
Each function may be refined by another Value Chain or an EPC diagram. EPC diagrams must be created before they can be attached to value chain elements. Value Chain elements which have an attached diagram are being drawn underlined. They also got a Visio Hyperlink in the context menu for navigation.

5. Org Charts

Org Charts are used to describe the organizational structure of your company graphically. You may add new element using shapes for Org Unit and Position and connect them with then “superior of” connector.
Using Diagram->Insert (Model) you can add the existing Org Units “Sales” and “PD” to the org chart. After insertion you can change the shape using Object->Shape to the one used in the next screenshot:

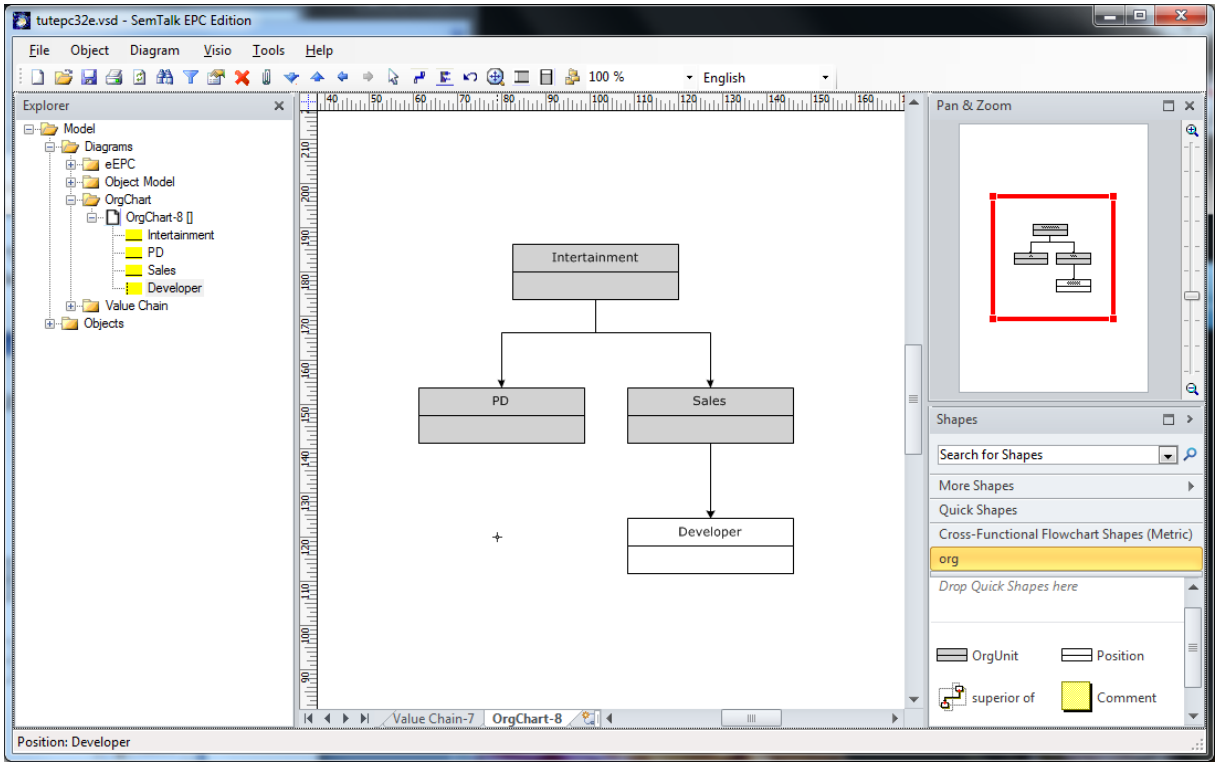


Figure 20: Org Chart

If you edit an Org Unit or Position, you may add Persons to the element.

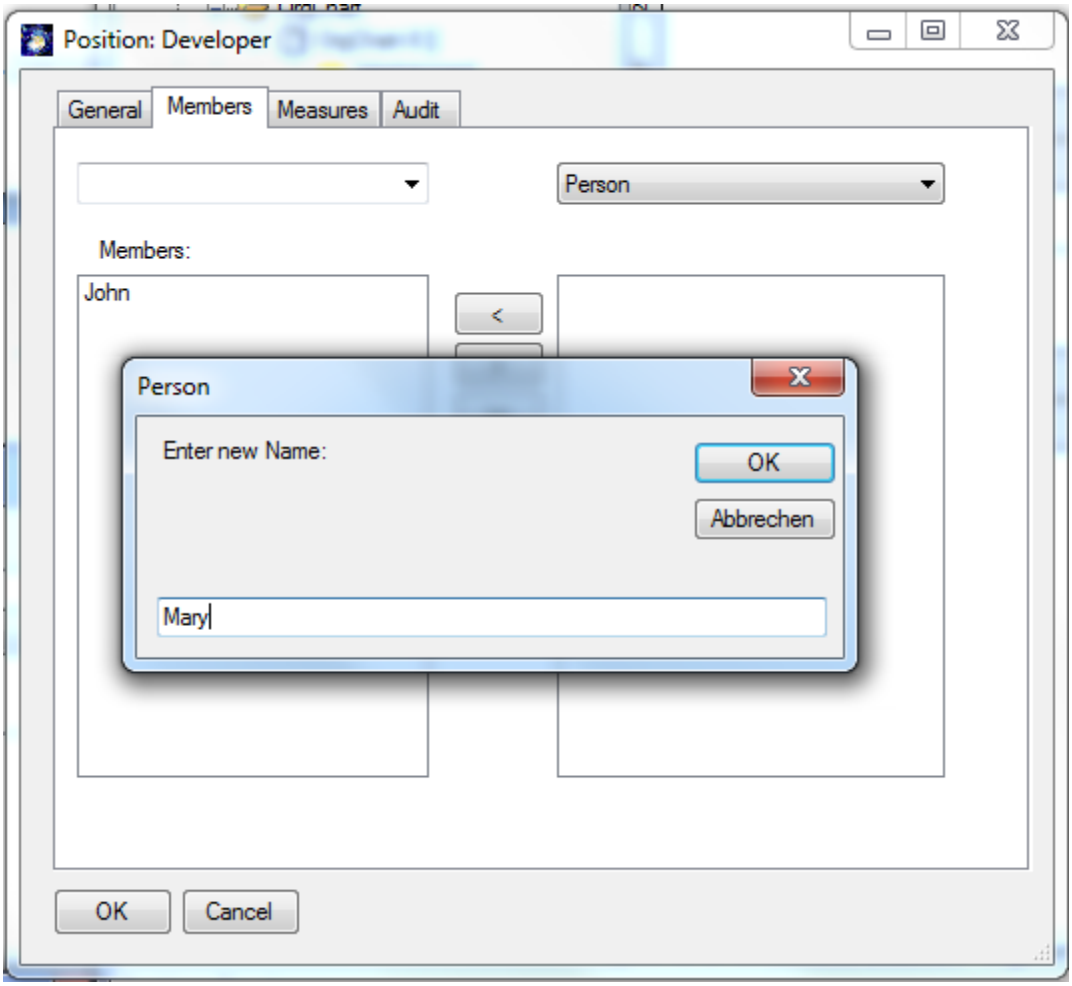


Figure 21: Adding Persons

The person can be edited directly by double clicking in the list. Any organizational unit is a resource with measures like fixed cost, variable cost and a capacity.

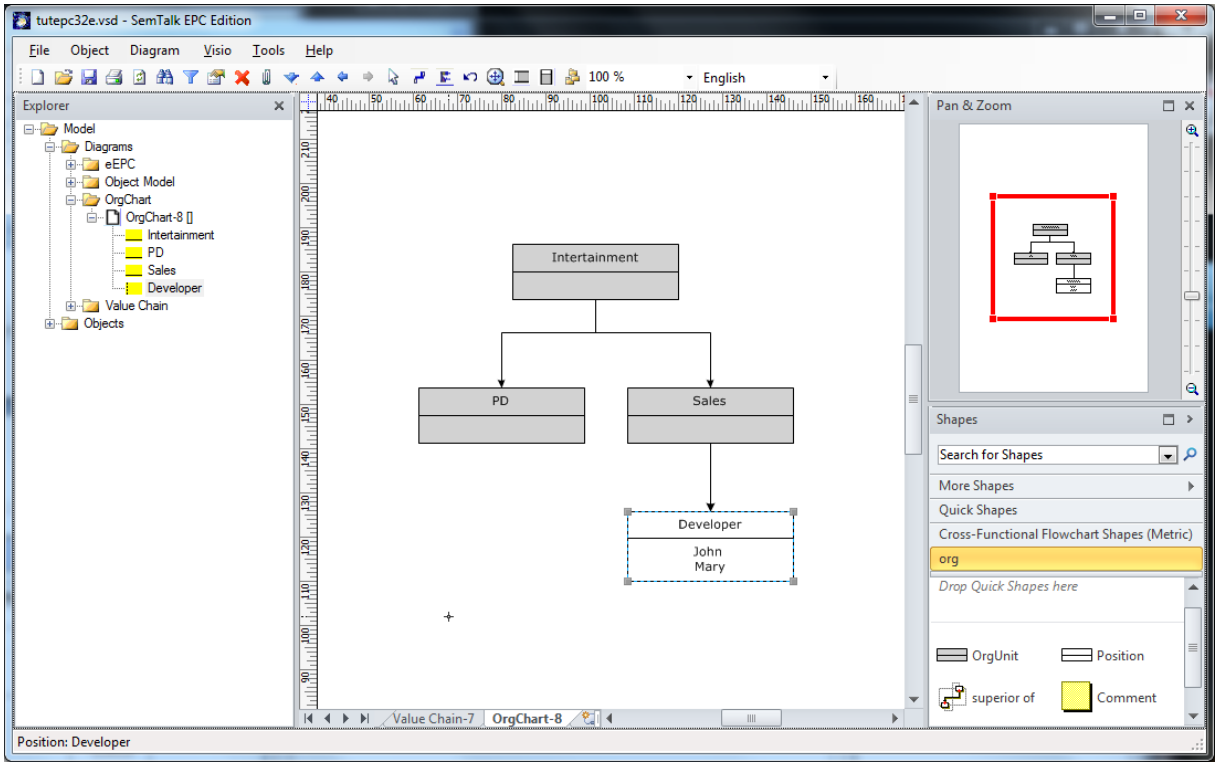


Figure 22: Org Chart with Persons

6. Class Diagrams

Open as Visio Stencil using File->Open Stencil or search for a Visio shape. Please open the Visio Stencil „Networks and Peripherals“ (PERIPH_M.VSS, PERIPH_U.VSS) for additional Visio Masters. You will find the stencil for Visio 2007 at „C:\Program Files\Microsoft Office \1031“ or for Visio 2003 at „C:\Program Files\Microsoft Office\VISIO11\1031“.[2]
For Visio 2010 use “More Shapes->Network->Network and Periphals”

If you drag an arbitrary Visio master onto your process sheet SemTalk does not recognize the shape in the context of the current modeling method. A dialog is shown which allows selecting the appropriate modeling construct. For example a Copier should be made a subclass of resource. “Ignore” just accepts it as a Visio shape and does not add it to the SemTalk database.

[2] If you are using Visio Shapes frequently it make sense to change file path for stencils (2003) or “My Shapes” (2007) using Visio’s options dialog.

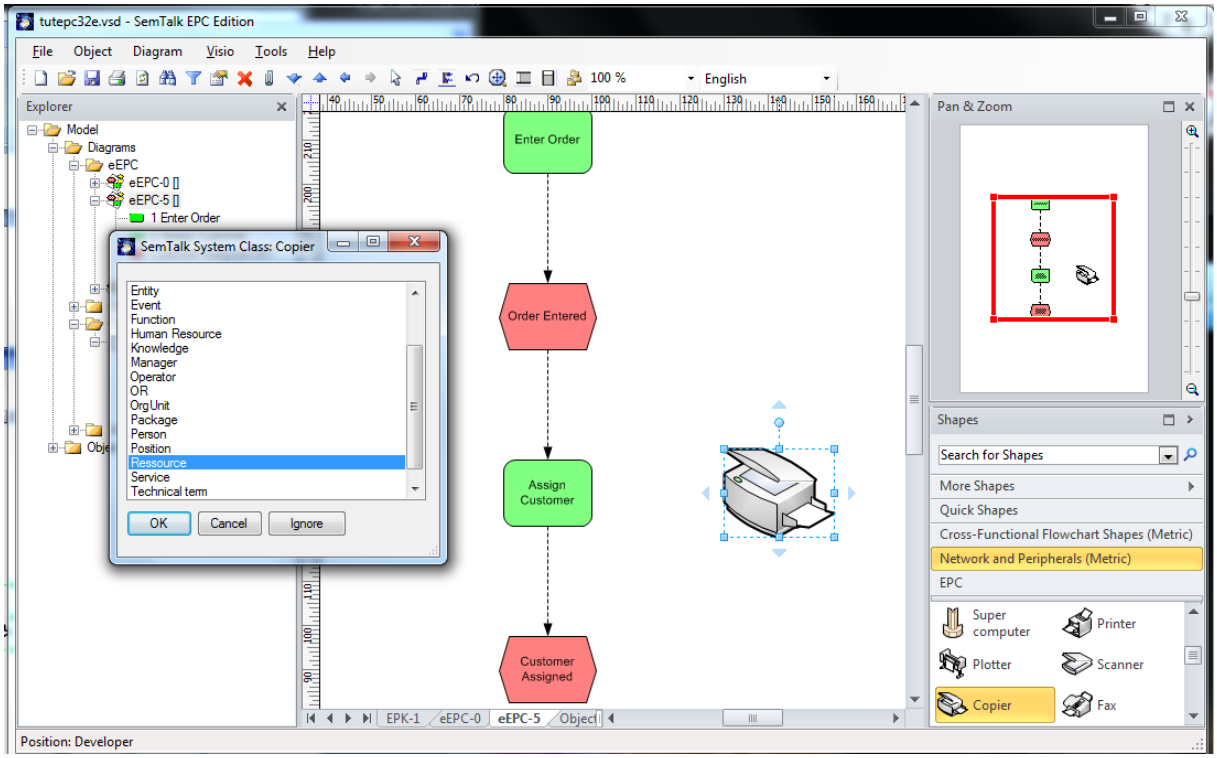


Figure 23: Adding an arbitrary Visio Shape to a process

Instead of this bottom up approach we can also define new classes of resources on class pages. Create a new diagram of type “Phys. Resource Model” and drop some shapes there again.

In the new diagram you can create classes and subclasses with attributes and associations. To add a new class, please use the “UML Class” shape. A “subClassOf” (or is a) relation between two classes is created with the “subClassOf” connector. Associations are made with the “Property” connector.
It is a special behavior of class diagrams, that every class is automatically a subclass of their root class, which is in this case the class Physical Resource.

You can add new classes by opening a Visio stencil or search for a shape. Drop the shapes onto a PhysResource Model or drop onto the document stencil in case the shapes does not exactly have the intended name. If the shape does not have the right name it must be renamed in the document stencil and afterwards dropped on the page.

The document stencil (Visio-> View->Document Stencil) will now contain copies of the used Visio masters. Using right click master properties on the master you can rename the master to a class name of your choice. Please rename “CRT projector” to “Beamer”.

The properties of the Visio master are becoming attributes of the class.

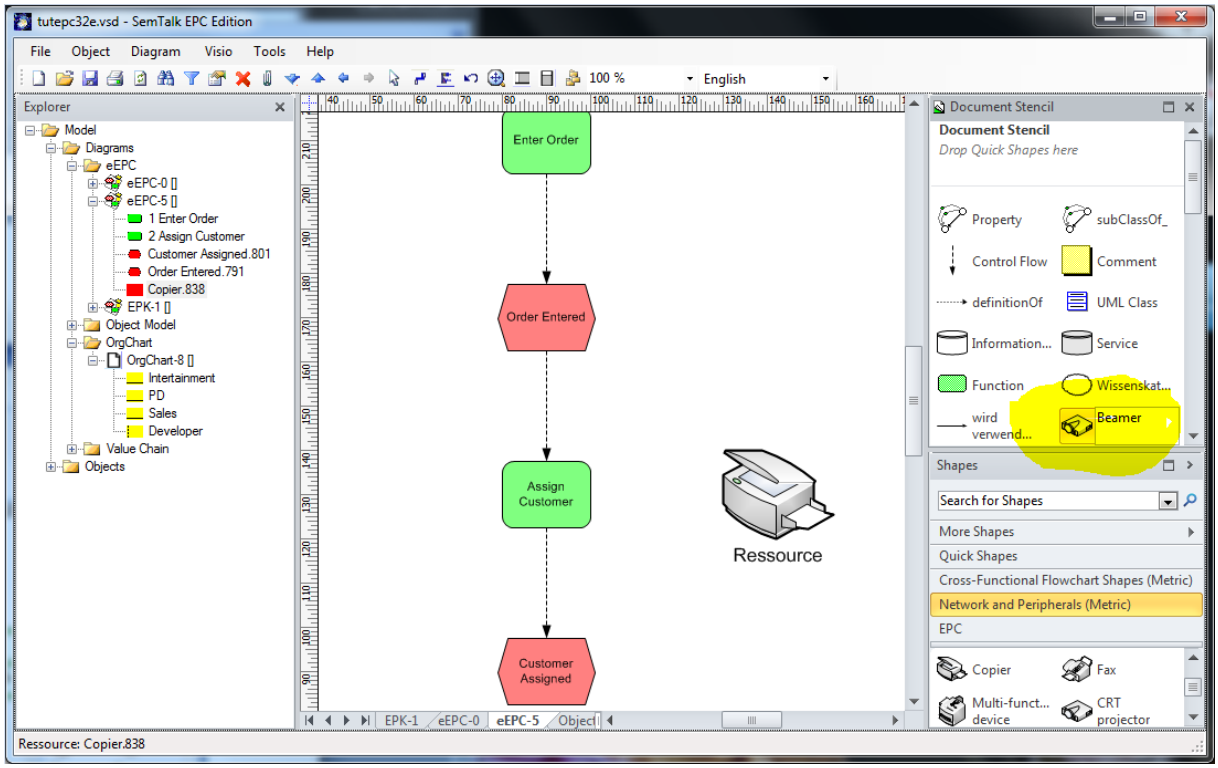


Figure 24: Visio Shapes for resources in the Document Stencil

Now you can create further subclasses and super classes.

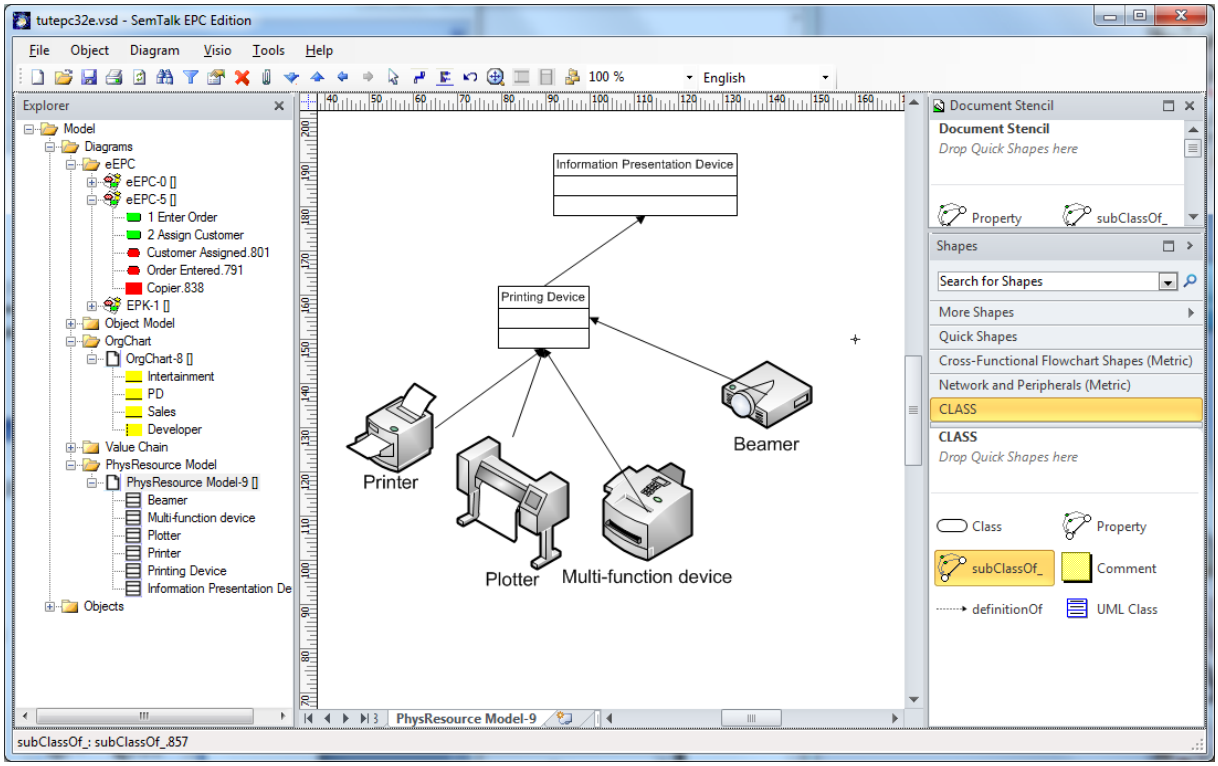


Figure 25: Classes of Physical Resources

We have used the Visio shapes for Printer, Plotter and Scanner[3]. Printing Device has been created using the UML Class master.
In the following picture you can see the attributes coming from Visio such as “Cost” and “Asset Number” and the inherited attributes coming from the EPC root class “Resource” marked with a “*” (visible only after checking ‘System’ checkbox).

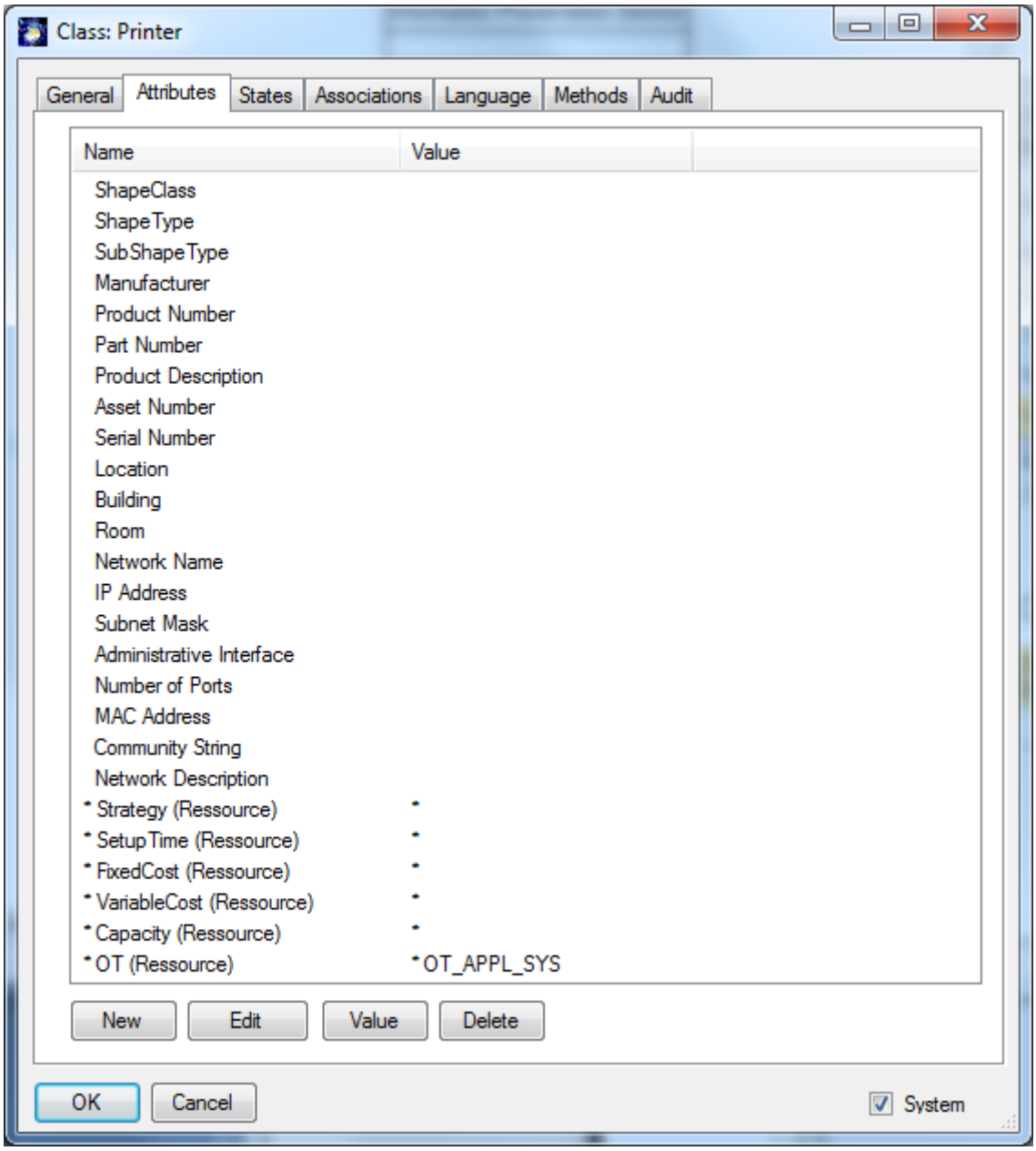


Figure 26: Attributes imported from Visio Masters

The Printer is now known as a physical resource and can be used in the process model.

NOTE: A good object oriented model has the definition of attributes on a common super class rather than classes created from Visio masters.

[3] These shapes are much easier to use if you turn of “Snap to Member” (Format->Behavior)

7. Resources

Please add a resource to the process:

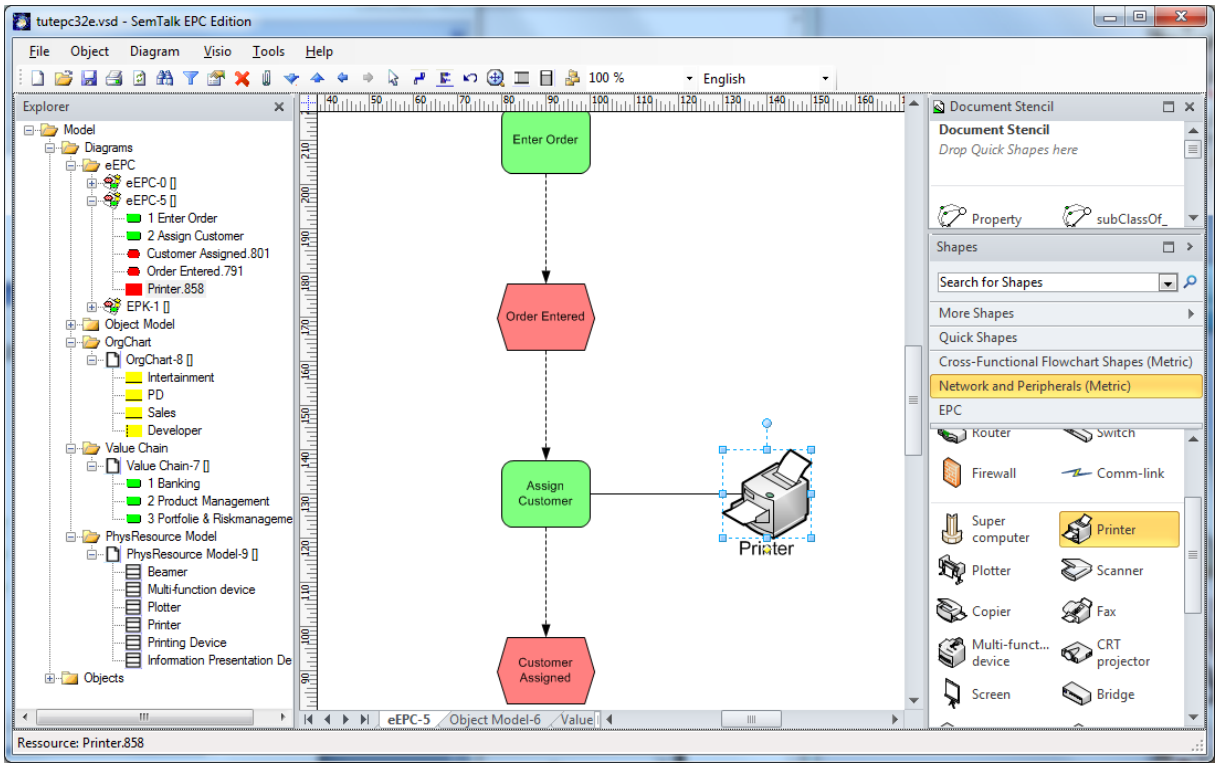


Figure 27: A Resource with a Visio Shape in a Process

Connect it to "assign customer" with a "is used by" connector.

Note on EPC Methodology:

> A resource is an object which is required to execute the function. The function can only be executed if enough capacity of the resource is available. There are basically to kinds of resources: Physical resources such as laptops and human resources like an organizational unit.

NOTE: You may insert the same physical resource more than once into a process using right-click insert and check "Show Existing". You may not insert the same function call more than once, but you can make multiple calls to the same function.

Next step is to edit the Resource. The general tab is identical to other dialogs.

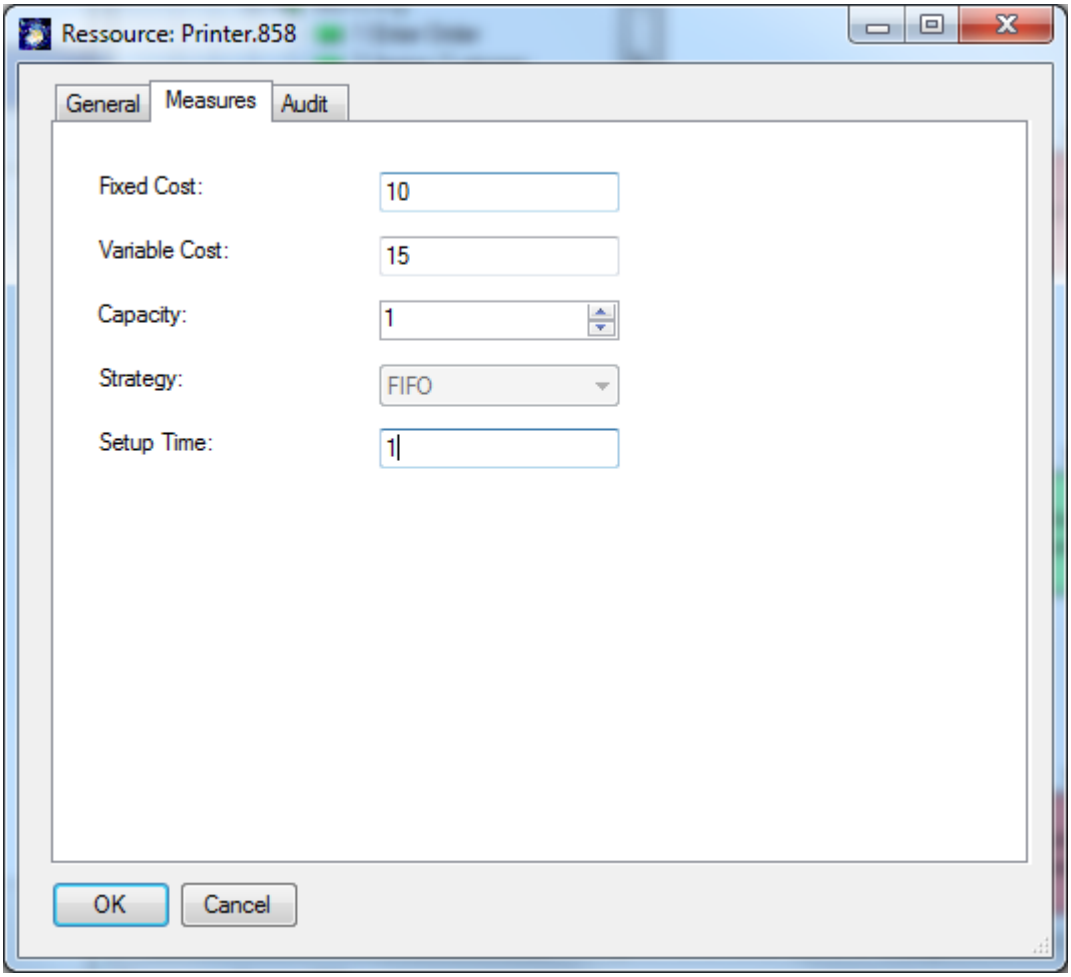


Figure 28: Physical Resource: Measures

The measures tab of a physical resource has some fields used mainly for simulation purposes. Variable cost is depending on the time the resource is used. Fixed cost is a cost factor per access.

For physical resources it makes sense to have a class model where you can specify all the types of resources you use in your model and assign shapes how to display them.

If you edit the Printer object, you may change its class to any subclass of Printer, but not to a subclass of Scanner.

Class models can be created for every other base type.

NOTE: assigning shapes does not make sense if instances of that type are never created such as object or media, or never shown as such person and manager.

NOTE2: you may also depict subclasses of activity by special symbols or change the layout of system shapes.

8. Refinements

The EPC method in SemTalk is basically compatible with the given standard.

The concept of process references has been solved slightly different. There is no special symbol to denote a reference to a sub process. Functions can be refined by attaching an EPC diagram. Refined functions are being drawn with underlined characters similar to a hyperlink in a browser. If the standard process path shape is required a user may select that shape for a specific function call. Each sub process automatically gets copies of the start and end events inherited from the refined function.

Right Click on “Assign Customer” and select “Refine”. A dialog pops up asking for the name of the subprocess:

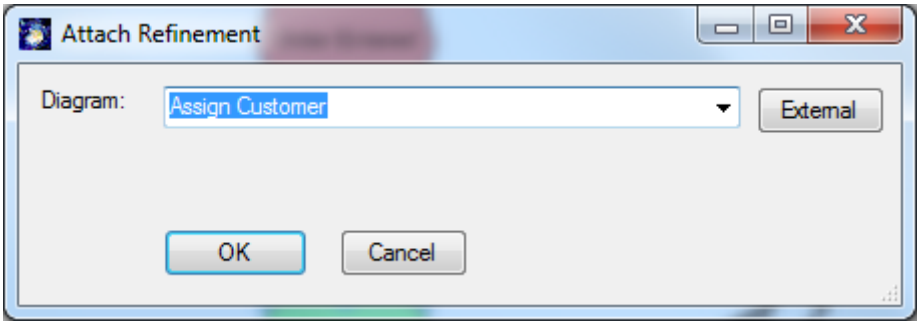


Figure 29: Creating a Refinement

A new empty EPC with start and end events is generated:

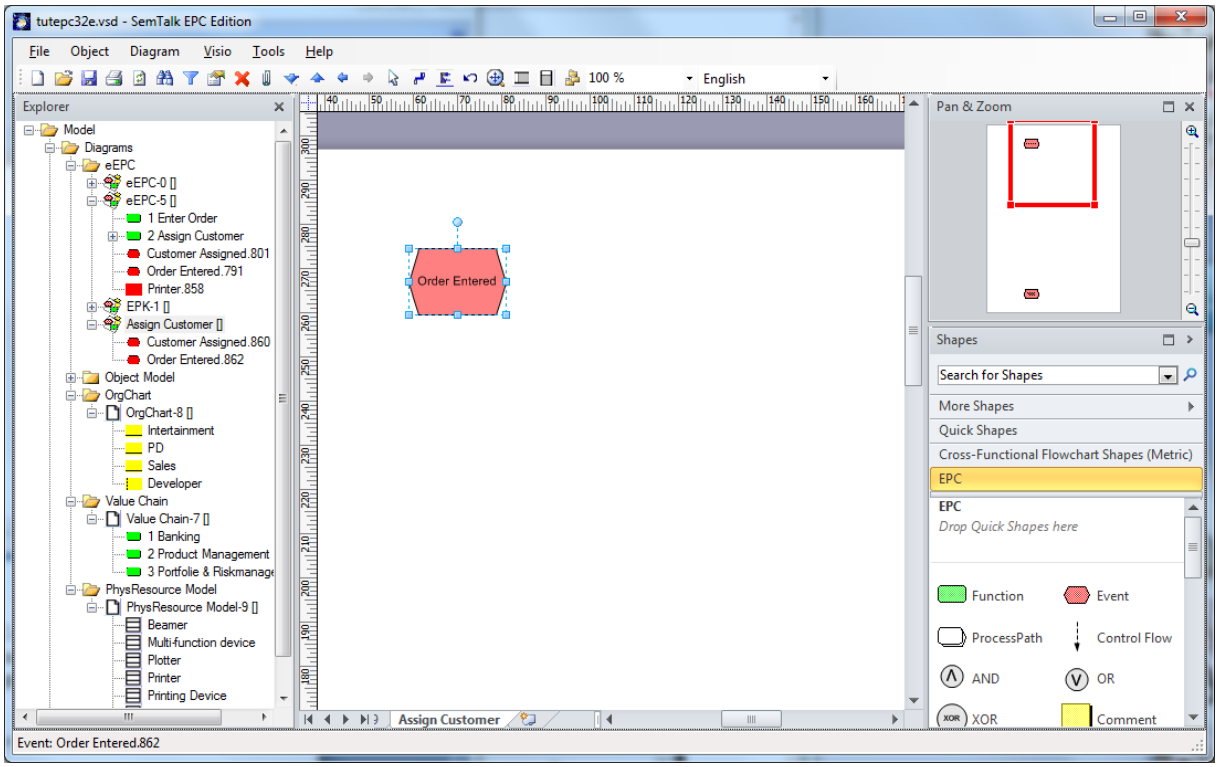


Figure 30: A new Refinement

You can see in the explorer the new process as a child node of “eEPC-5”. In “eEPC-5” “Assign Customer” is now underlined to inform you that is has a refinement. Any time you select “Refine” you open the refinement. The menu “SemTalk->Diagram->Go Up” navigates from the refinement to the refined process.

NOTE: If you use the option “External” on the refine dialog, you can assign a process from a different model. In this case the refinement works like a hyperlink to the other model. But you cannot connect entry- and exit points.

8.1. Attachments and Visio-Hyperlinks

Refinements are used for a unique structured decomposition of processes. Attachments are used to assign unstructured information such as documents, hyperlinks or arbitrary Visio pages to an object. In order to add an attachment please uses the edit dialog or Object->Hyperlink.

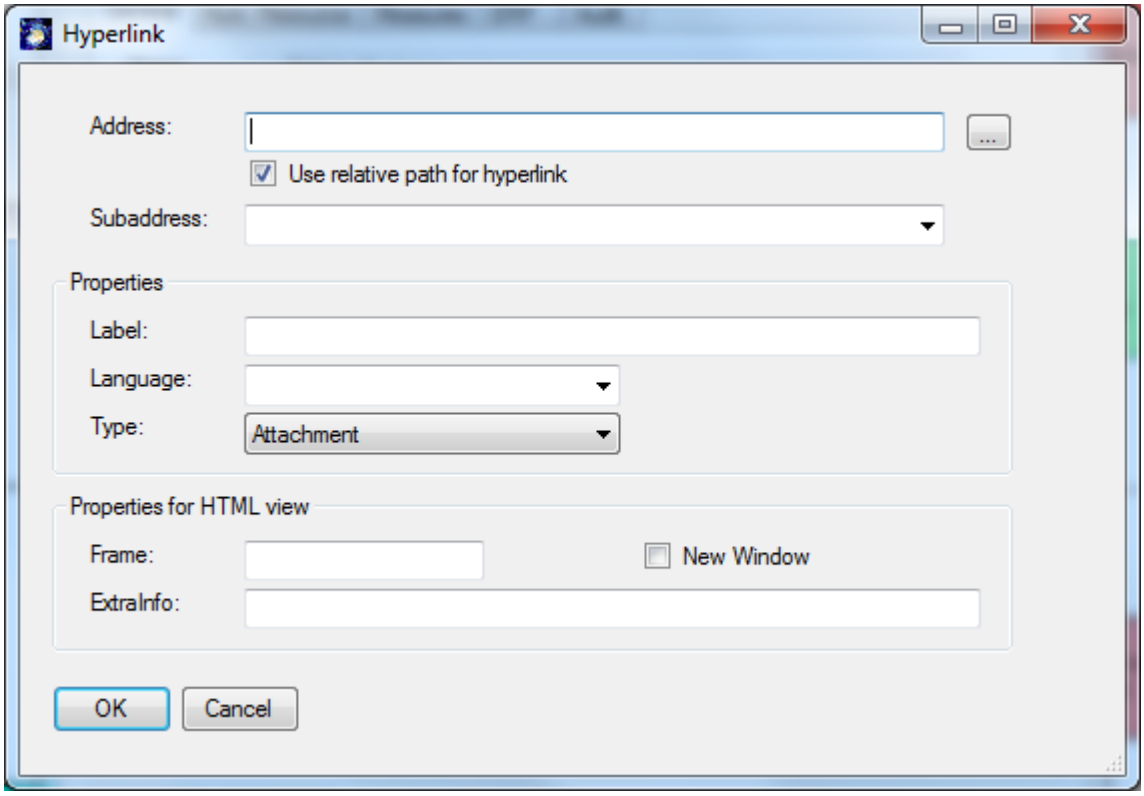


Figure 31: Editing Hyperlinks

Use **Subaddress** to attach other Visio pages. **Address** will be used to attach documents or Hyperlinks. **Language** marks the document for a certain model language. You may attach as many documents as you need. Please visit the general tutorial for further information.

Navigation in the document and its HTML representation is realized via Visio-Hyperlinks:

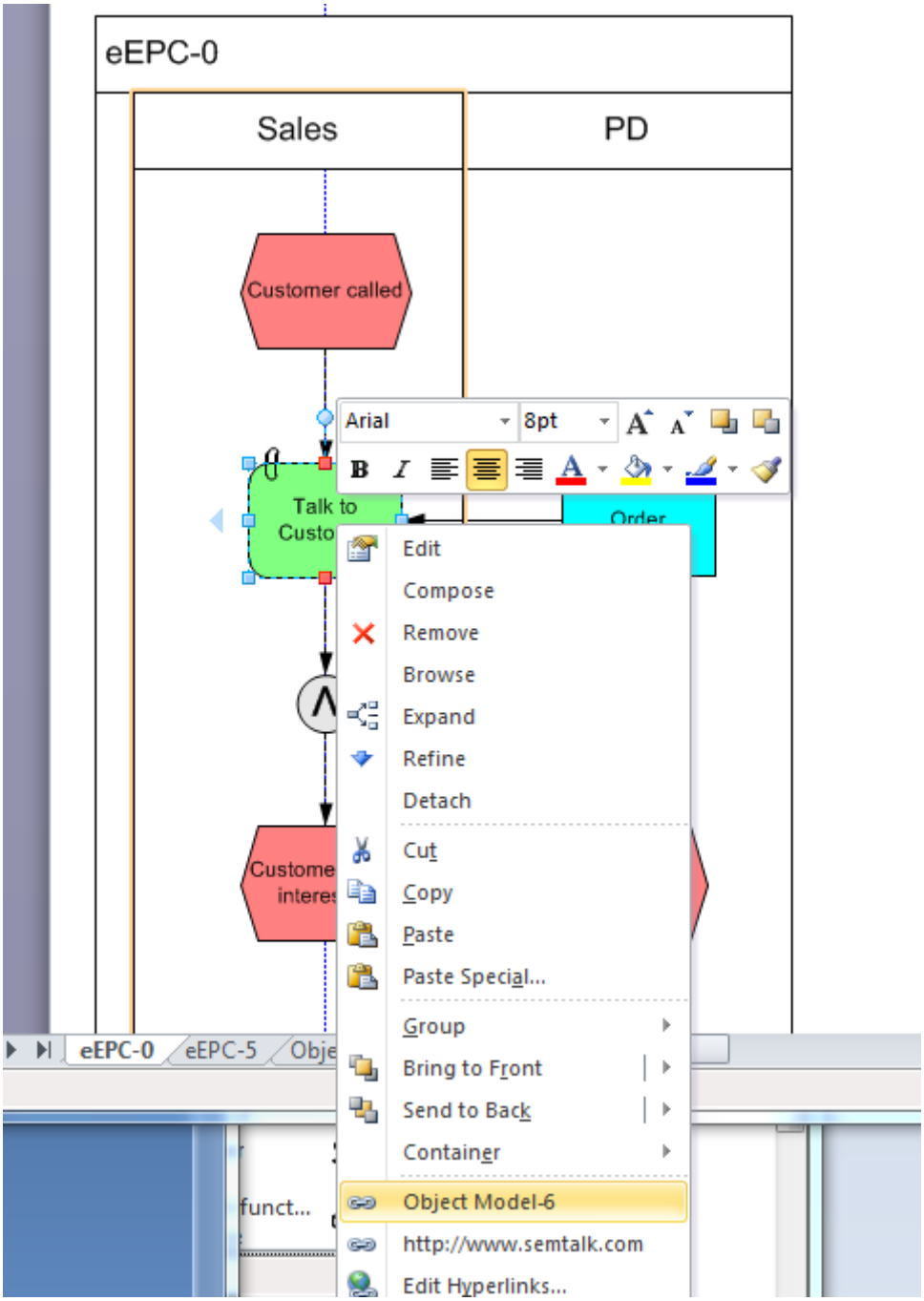


Figure 32: Navigation with Hyperlinks

9. Customizing Colors

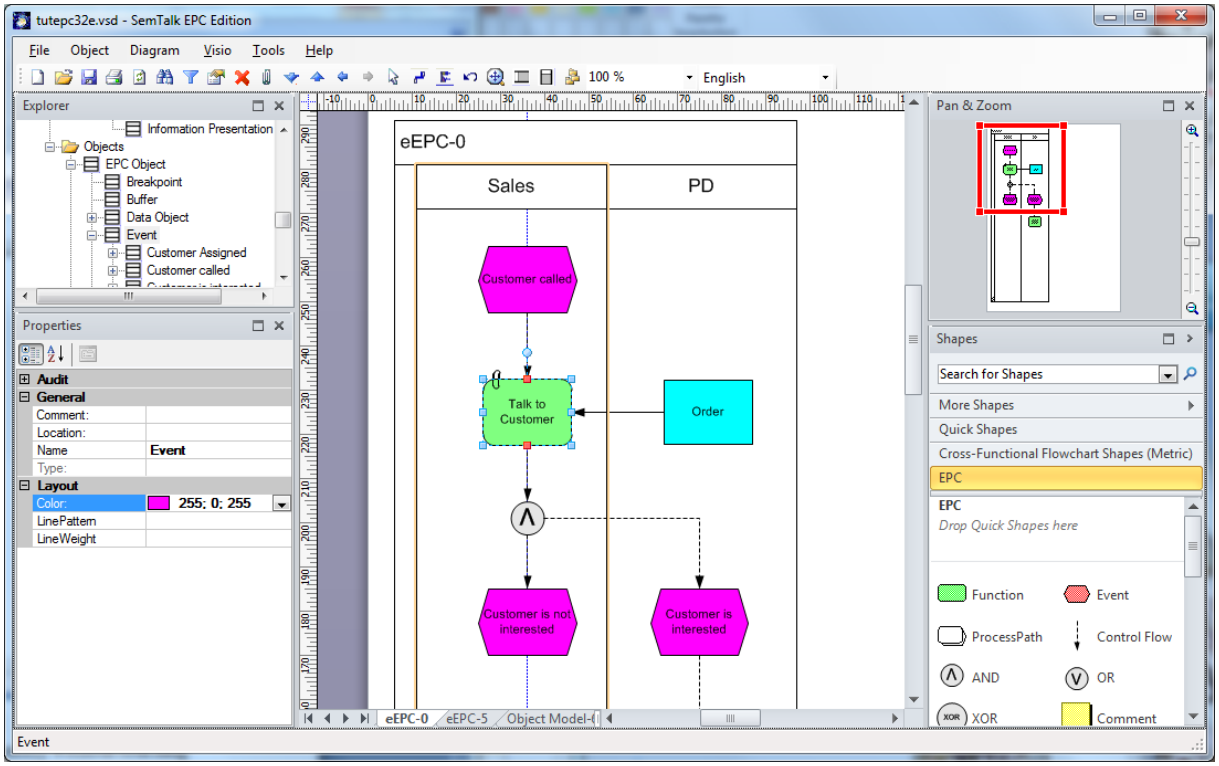


Figure 33: 16 Bit Colored Process

You have the option to change the color of shapes for each type separately without touching the Visio Master shapes. Select Function, OrgUnit or Event in the “Objects” part of the Explorer and select a color of your choice.

10. Simulation

Simulation is available for SemTalk EPC Edition. Simulation allows testing the logical behavior of your process in order to find possible deadlocks.
Using colored Petri-Nets you can investigate your process in a dynamic environment with multiple inputs processed in parallel, in order to find out bottlenecks. According to EPC semantics SemTalk’s simulation is a bit limited: You can place multiple tokens having each its own color on one event, but you can not place tokens with the same color on multiple events.
Please refer to our Simulation Tutorial for Details.

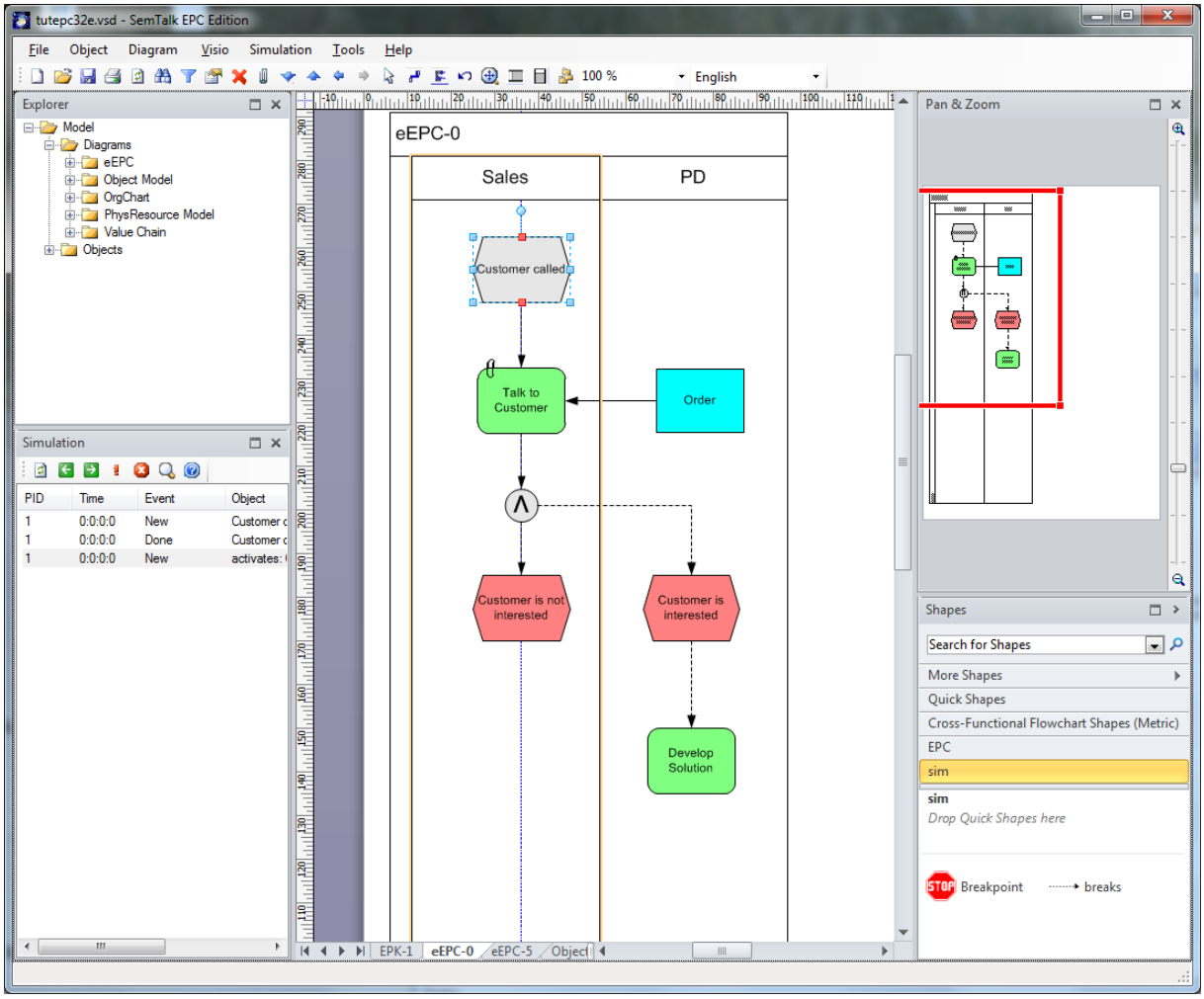


Figure 34: Simulation

11. Dialog View

Dialog View allows controlling one Visio document from another. Every time you select a process shape in the main Visio document a shape (or "Control") in the other Visio Document will be selected. This is intended to be used for the specification of IT-Systems, Workflows or Portals. It might be used in conjunction with the stepping mode of simulation.

Dialog View can be opened from Tools->Dialog View->New/Open. The workspace will be split in two areas. You may create or modify user interfaces here. Any Visio document can be used. It does not have to be created with SemTalk.

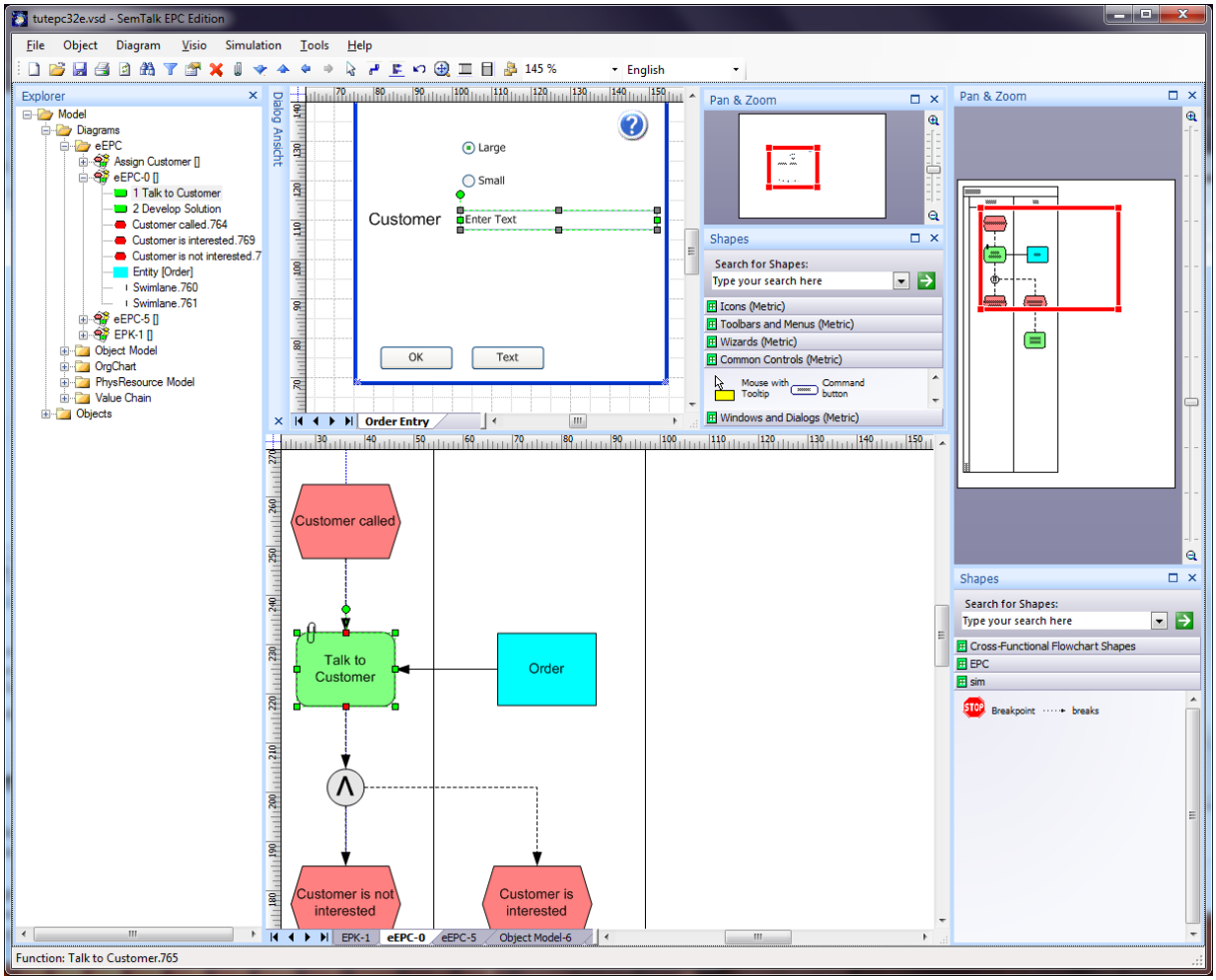


Figure 35: Dialog View

In order to connect a process element with a shape in the drawing please select both shapes and choose the option Tools->Dialog View->Capture. Each process element can only be assigned to one shape. Each time you select the process the shape will also be selected. This is actually what the Simulator does in Single-Step Mode.

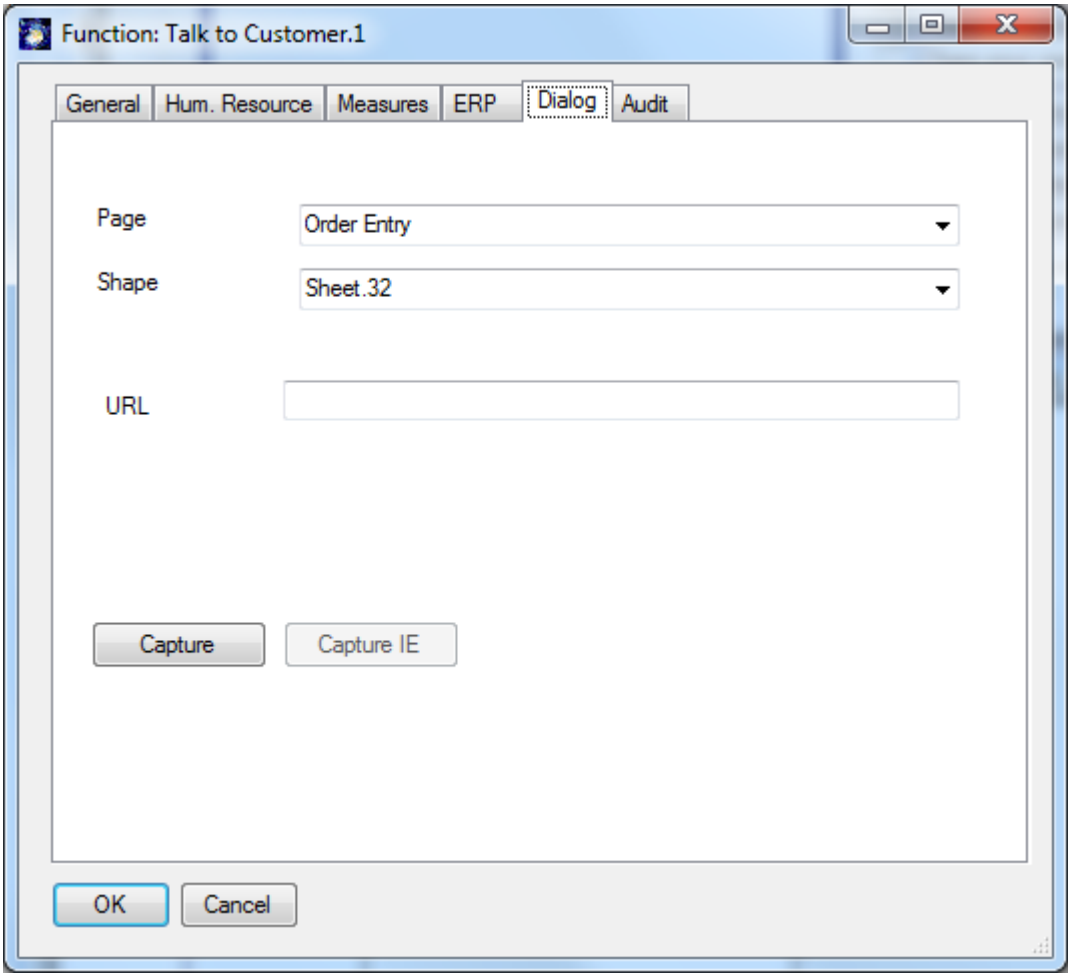


Figure 36: Dialog Tab

Using the dialog tab you can review and change your settings. Instead of connecting the Visio shapes, you may also connect the process element to hyperlinks. In order to do that you MUST open the browser via Tools->Dialog View->Browser.

SaveAs Webpage will retain the links to an HTML representation of the 2nd Visio document.

12. XPDL Export

The XML Process Definition Language (XPDL) has it origin in the text-based workflow exchange format of the Workflow Management Coalition (WfMC Interface 1)

- Allow tools to exchange process models
- Format to exchange Process Definitions between
  - Components within Workflow/BPM Products
  - Different BPM/Workflow Products
  - Process Modelling/ Simulation tools and BPM/Workflow Products

In SemTalk you'll find XPDL Export at File->Export/Import->WfMC XPDL Export.

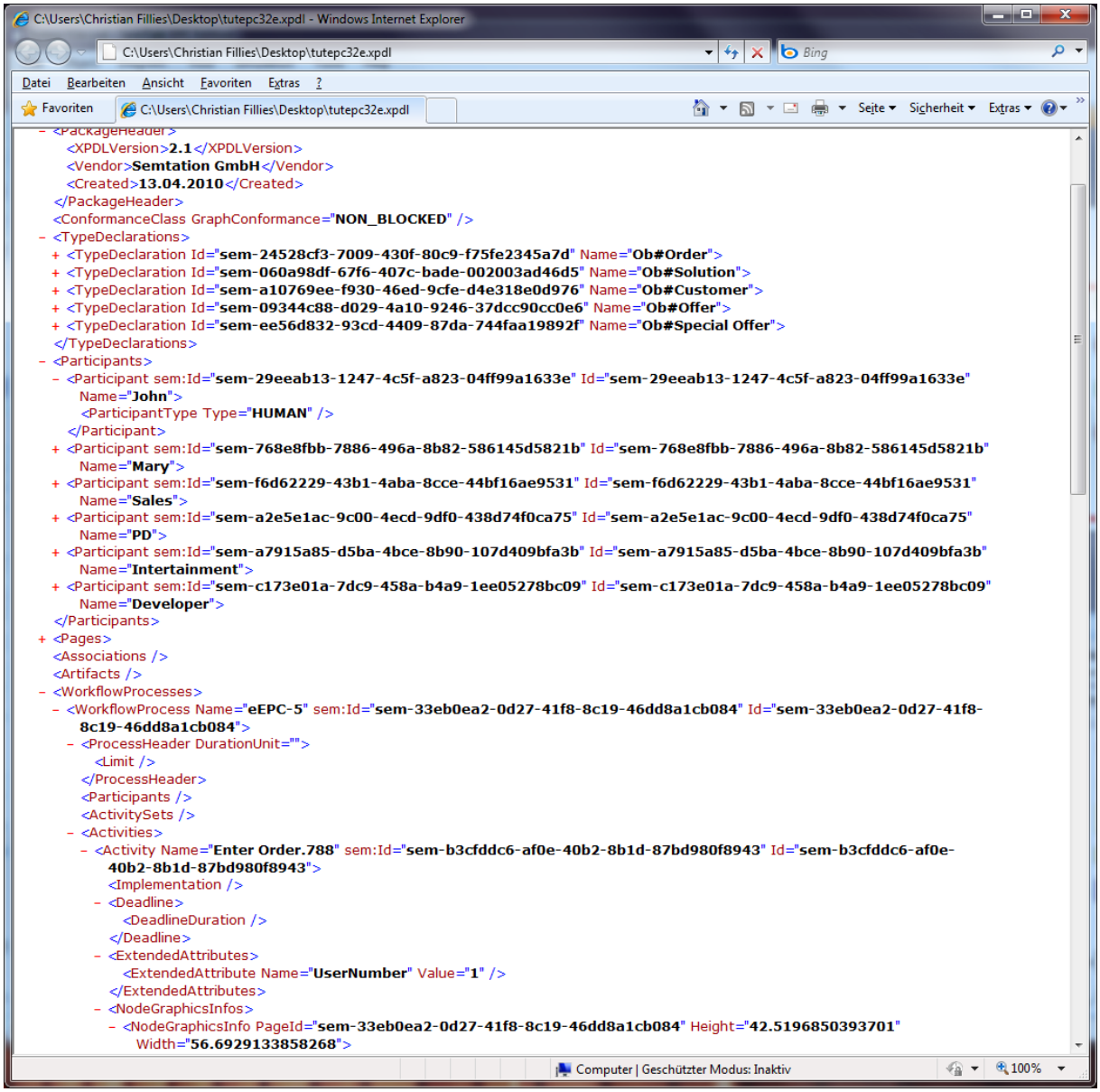


Figure 37: XPDL Export

13. Importing and Exporting of ARIS and EPML[4]

The import and export of ARIS models is possible using the ARIS XML format named AML. You will find the interfaces at **File -> Export/Import -> EPML, AML** ".

- AML is the XML Export format of ARIS.
- EPML is a vendor independent exchange format for EPC (www.epml.de). AML can be converted to EPML and vice versa.

13.1. AML

[4] ARIS is a trademark of IDS Scheer AG

Using SemTalk you can read and write the ARIS XML format („AML“). Select in ARIS[5] the diagrams („Models“) of your choice and export them with the context menu „Export/Import->XML Export“. AML Explorer shows the ARIS folder structure of the AML file you have selected. Use the check boxes in the docked window to mark the objects you intend to import to SemTalk. Right-Click SemTalk will import the objects to SemTalk.

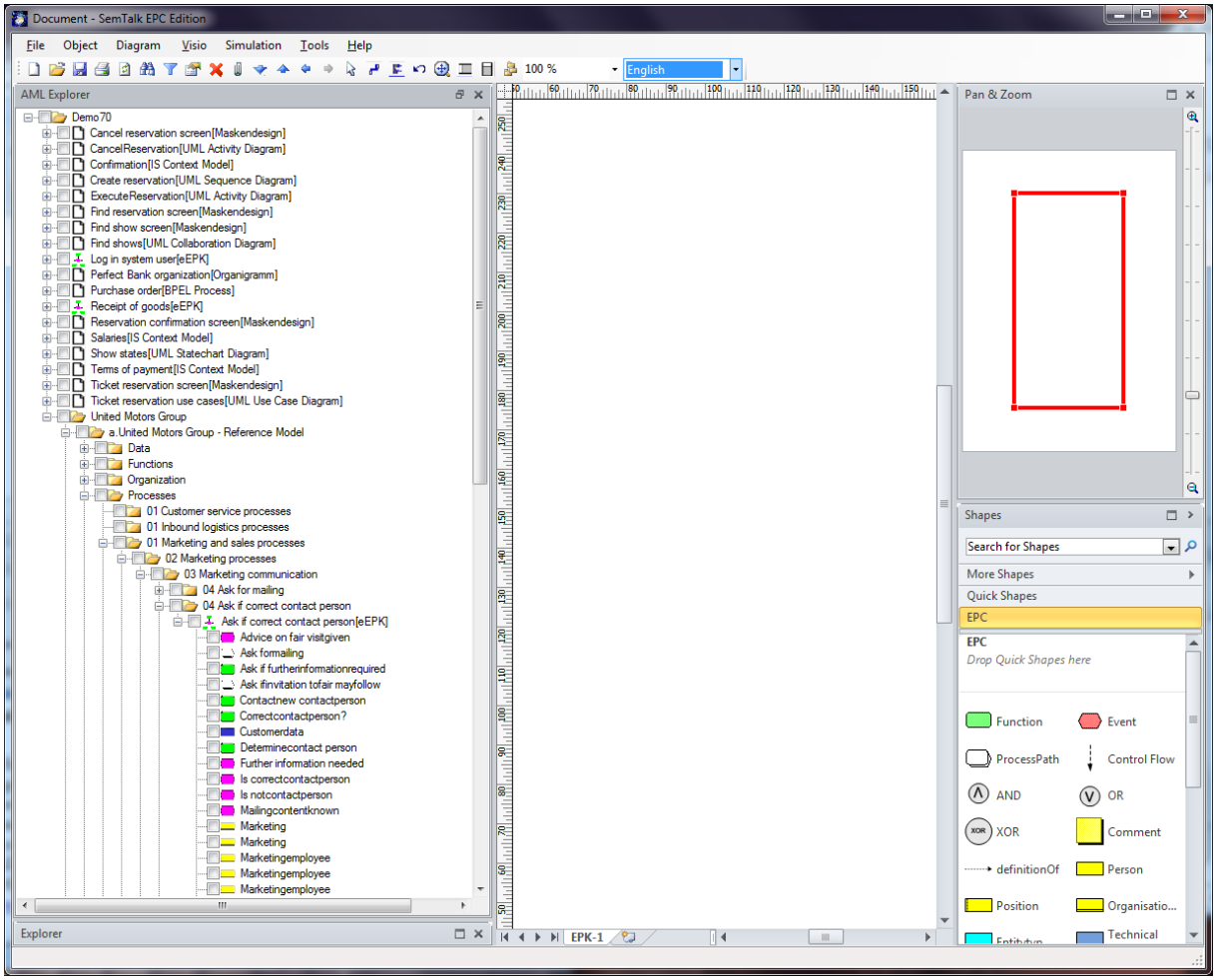


Figure 38: AML Explorer

The AML Import Options can be opend via a right click menu in the AML Explorer window. Select all languages you need. ARIS models can be imported for multiple languages. In order to review ARIS XML in IE or to use it in SemTalk and other programs you need a file named „ARIS-Export.dtd“, which can be found in the ARIS program folder in a directory named „aml“. Please copy the DTD to the directory where the XML export is located.
The Import Option allow to specify which object type are mapped to specific SemTalk classes and which symbol are mapped to specific Visio masters.

SemTalk imports all languages available in the ARIS export file. You may choose the actual language for viewing the model after import. “Primary language” is the language for creating internal object names.

[5] Supported versions for import are 6.1, 6,2 and 7.x. For other versions please contact support@semtalk.com

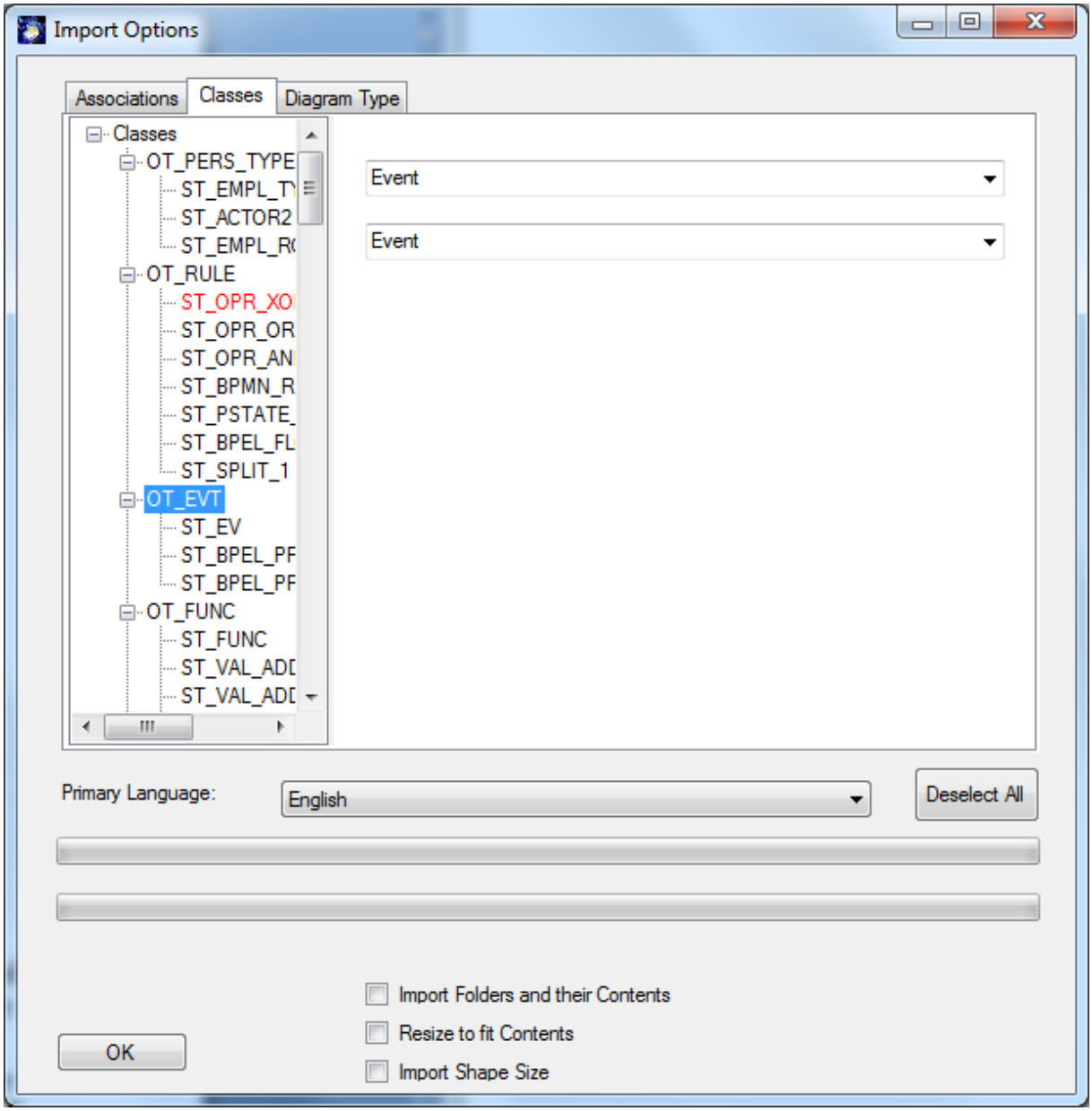


Figure 39: ARIS Import Options

Select the diagrams of your choice and import them to SemTalk. ARIS diagrams are often very large so that it makes sense to adjust to page size with “Resize to fit Contents”.
ARIS has more than 100 diagram type with more than 200 object types. Since we intend to keep our EPC version easy to use and understandable, we do not include them in the delivered version. New diagram and object types will be created dynamically while import. The import will not create new Visio Shapes from ARIS. All unknown types use the “Instance” Shape (gray ellipsis). If you add the right shapes with the right names to the document stencil before import, they will be recognized. Please contact support@semtalk.com if you need assistance.
If you use the option “Import Shape Size” positioning and size will be taken form ARIS. SemTalk & Visio shapes are usually much smaller.

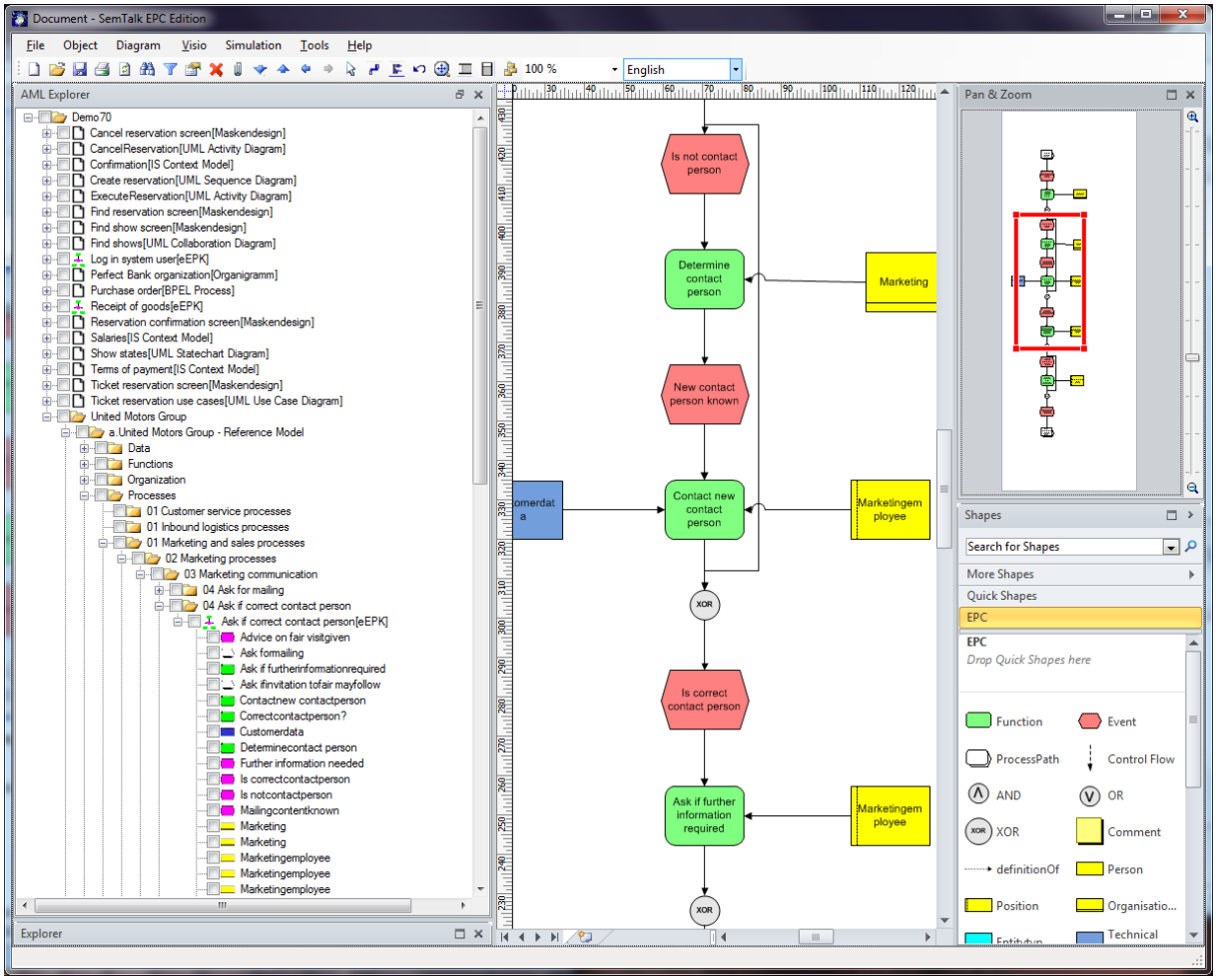


Figure 40: Imported EPC

The export to ARIS AML may be done using: **File -> Export/Import -> EPML, AML->AML Export.**

13.2. EPML

EPML (Event driven Process Chain Markup Language) was proposed by Mendling und Nüttgens in the year 2002. Compared to the XML export format of ARIS named AML, it has human readable tags for the process elements. While AML is a method independent format exporting internal ARIS structures as there are nodes, definitions and links, EPML exposes the elements of EPC as tags.

In order to export / import EPML you can simply open EPML files.

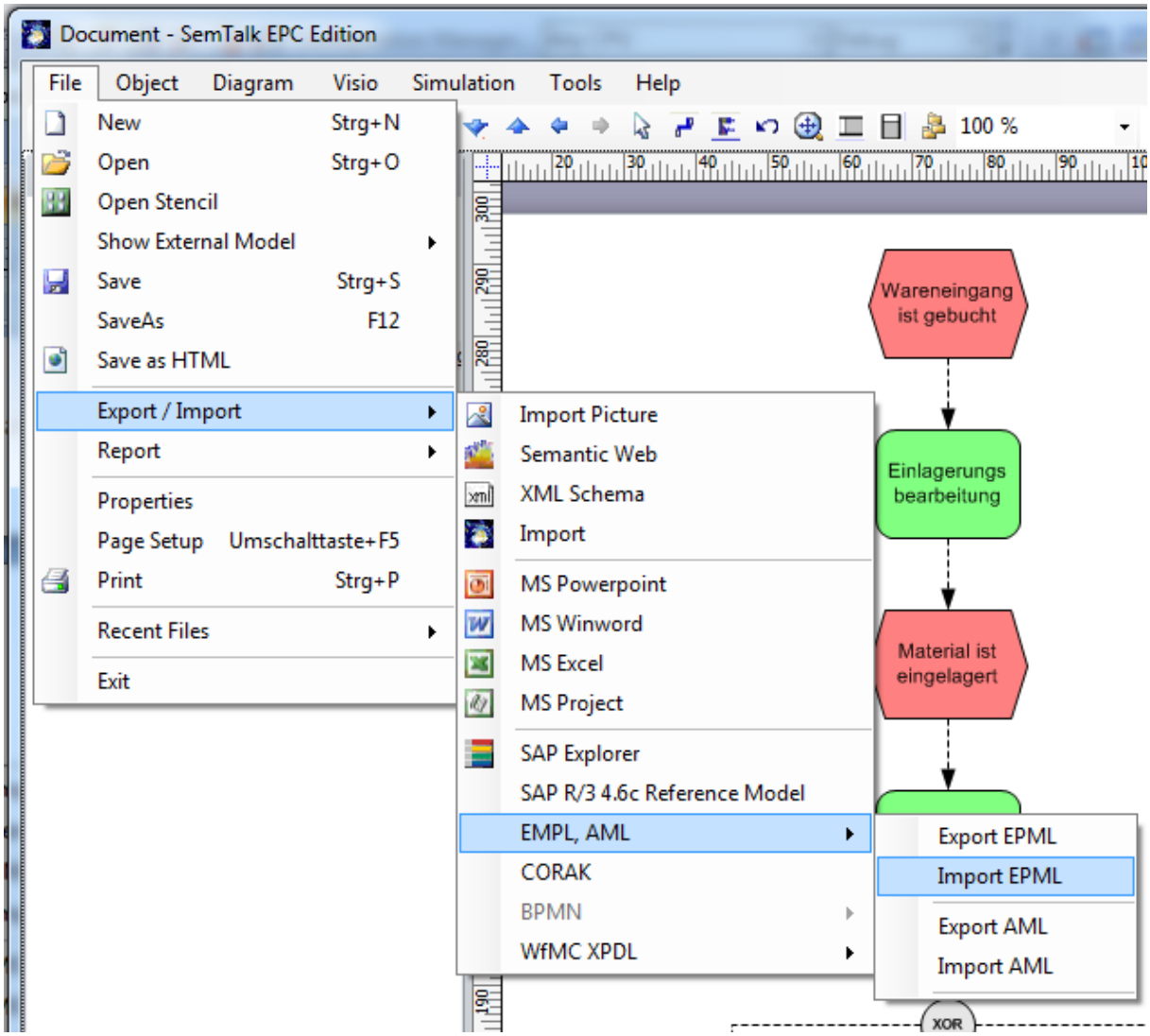


Figure 41: Import of EPML

If you need to convert ARIS EPC to EPML, you have to save the EPC diagrams of your choice in ARIS to the ARIS XML format.
The ARIS export file can be transformed to EPML with the xsl transform "AML2EPML.xsl" which is located in the SemTalk directory or by the Menu entry "ARIS -> EPML".
Conversions of AML to EPML take some minutes.

14. Importing from SAP[6]

14.1. Importing from SAP R/3

AcceleratedSAP (ASAP) is SAP's standard implementation methodology. It contains the Roadmap, a step-by-step guide that incorporates experience from many years of implementing R/3. Along with that, AcceleratedSAP contains a multitude of tools, accelerators and useful information to assist all team members in implementing R/3. Quality checks are incorporated at the end of each phase to easily monitor deliverables and critical

[6] R/3 and AcceleratedSAP are registered trademarks of SAP AG

success factors. ASAP is delivered as a PC-based package, so that - if required - an implementation project can begin prior to having an R/3 System installed.

The R/3 Reference Model contains comprehensive graphical process flows describing the R/3 functionality from different points of view. It contains scenarios, processes and functions, as well as components. The R/3 Reference Model can be viewed using SAP's Business Navigator and the Business Navigator Web, or using third-party modeling tools available from modeling partners.

The R/3 Reference Model can be imported into SemTalk if the database is installed on the system. You need to have an SAP Value SAP CD, Edition 1 or Edition 2. Copy the file Drive:\Viewers\Intellicorp\English_mdb\DiagramExplorer46C.mdb to your disk. Open the SAP R/3 4.6c Import interface from “File->Export / Import” and select the database file using “File-> ASAP Repository”. There is no need to install the ASAP toolkit for importing processes to SemTalk.

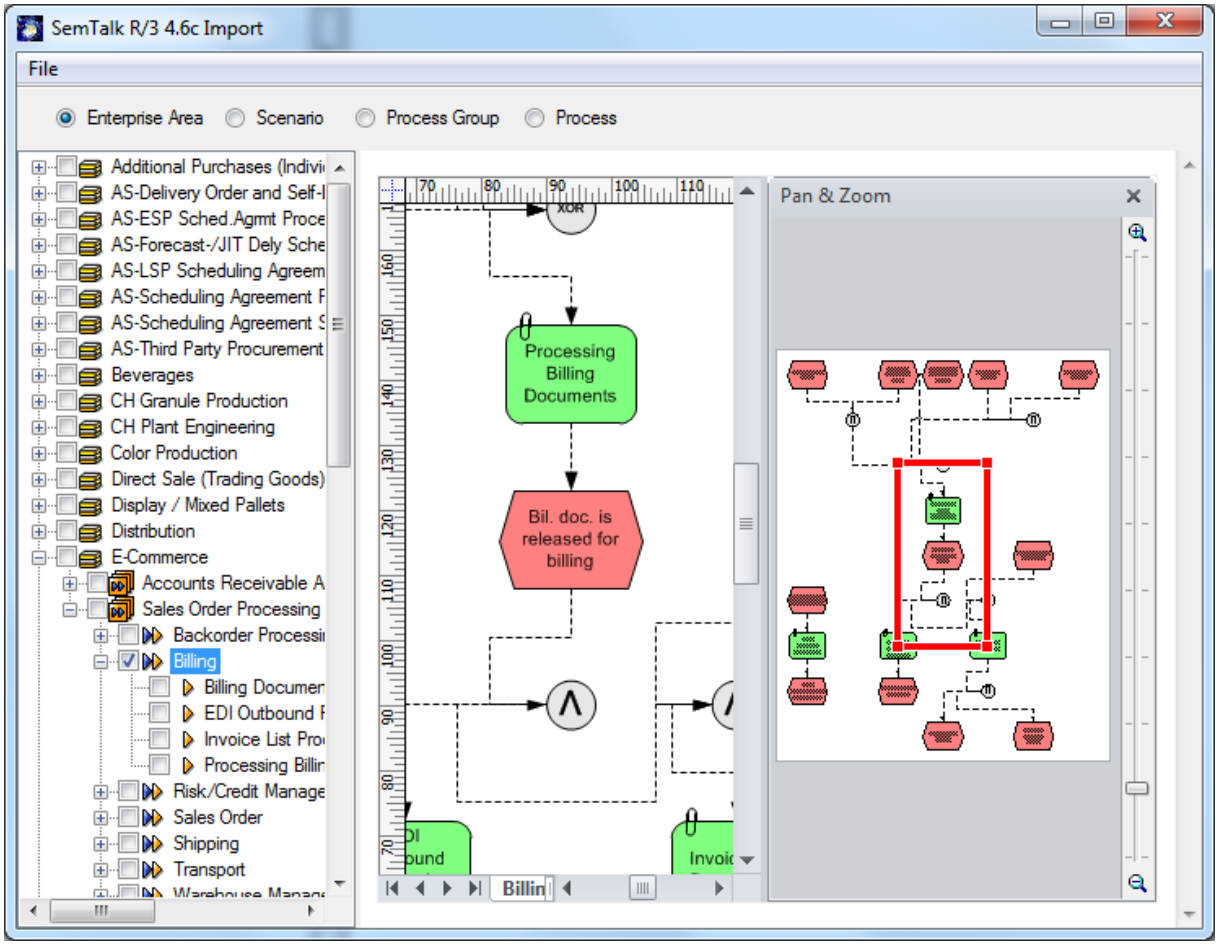


Figure 42: SAP R/3 Import

EPC are drawn in the drawing pane of the import interface if you select their title in the explorer. The explorer can filter by “Enterprise Area”, “Scenario”, “Process Group” or “Process”.

Check some (but not too many) processes and import them using “File->Import”. If there is information regarding transaction, inputs, output are technical object numbers in the database,

this information will be imported to SemTalk. EPC containing this information will be marked with a ("*") in their title after selection.

14.2. Import data from SAP Solution Composer, ESR and Solution Manager

The SAP import interface can be opened via File->Export/Import->SAP Explorer. It consists of the parts:

SAP Solution Composer
SAP Enterprise Service Repository
SAP Solution Manager

Content from SAP Solution Composer covers reference processes for a broad range of SAP solutions. It can be used in SemTalk EPC Edition and Visio after installing SAP Solution Composer locally on your machine:
(http://www.sap.com/solutions/businessmaps/composer/index.epx)
Content from Enterprise Service Repository is only available via the Internet. It contains a set of services and service descriptions which are usefull to SOA oriented process models.
Content from Solutions Manager describes your current SAP implementation. If you save a business blueprint from SAP solution manager, you may use its content from within SemTalk.

All these entry points into the SAP world are presented jointly in SemTalk's SAP Explorer. Use Drag&Drop or check parts of the objects shown in the SAP Explorer and import them into process modells. Beyond process steps you will find information about SAP Systems, Business objects, transactions and organisational units.

In order to get the SAP Look & Feel it is recommended to use the template „cview.vst", which has the right colors and shapes. Supported diagram types are Component View and Collaborative Business Map.

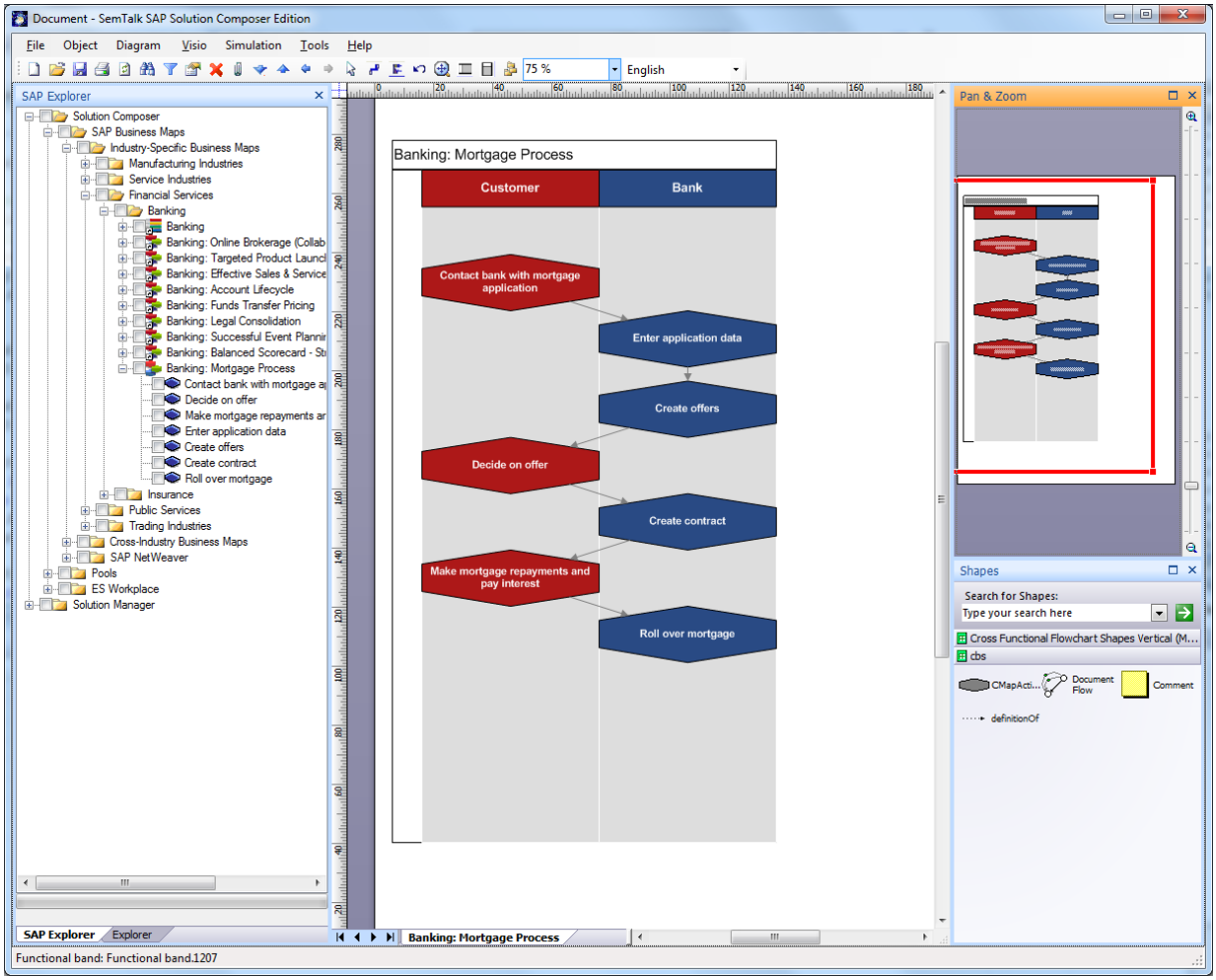


Figure 43: SAP Solution Composer (1)

Imported into EPC, the same process looks like this:

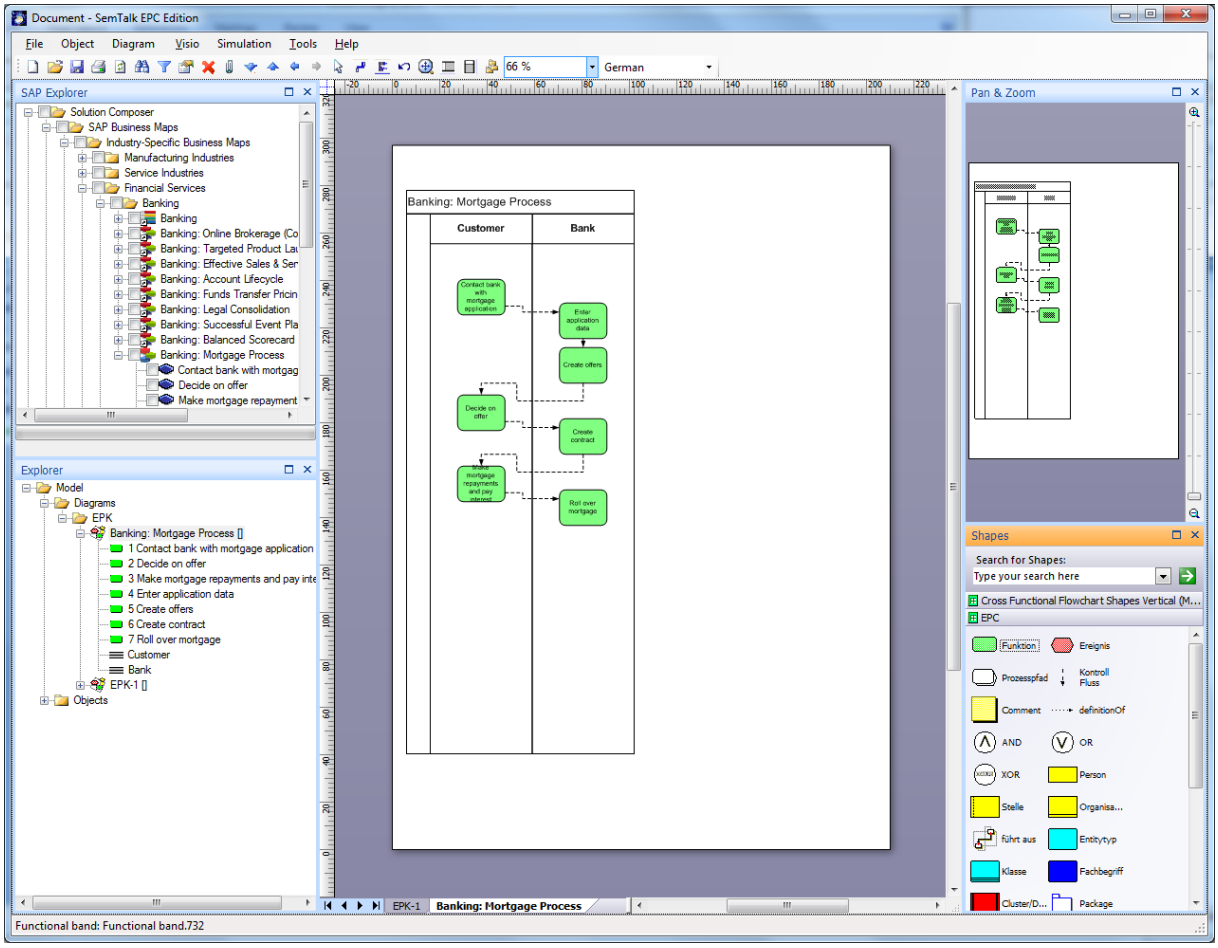


Figure 44: SAP Solution Composer (2)

Via simple Drag & Drop you may also add variants and web service definitions of the Enterprise Service Repository (needs Internet Access) and from a SAP Solution Manager Blueprint.

If you have installed the Solution Composer not in the default place or if you would like to use Solution Manager, you should update your SAP setting at Options->SAP:

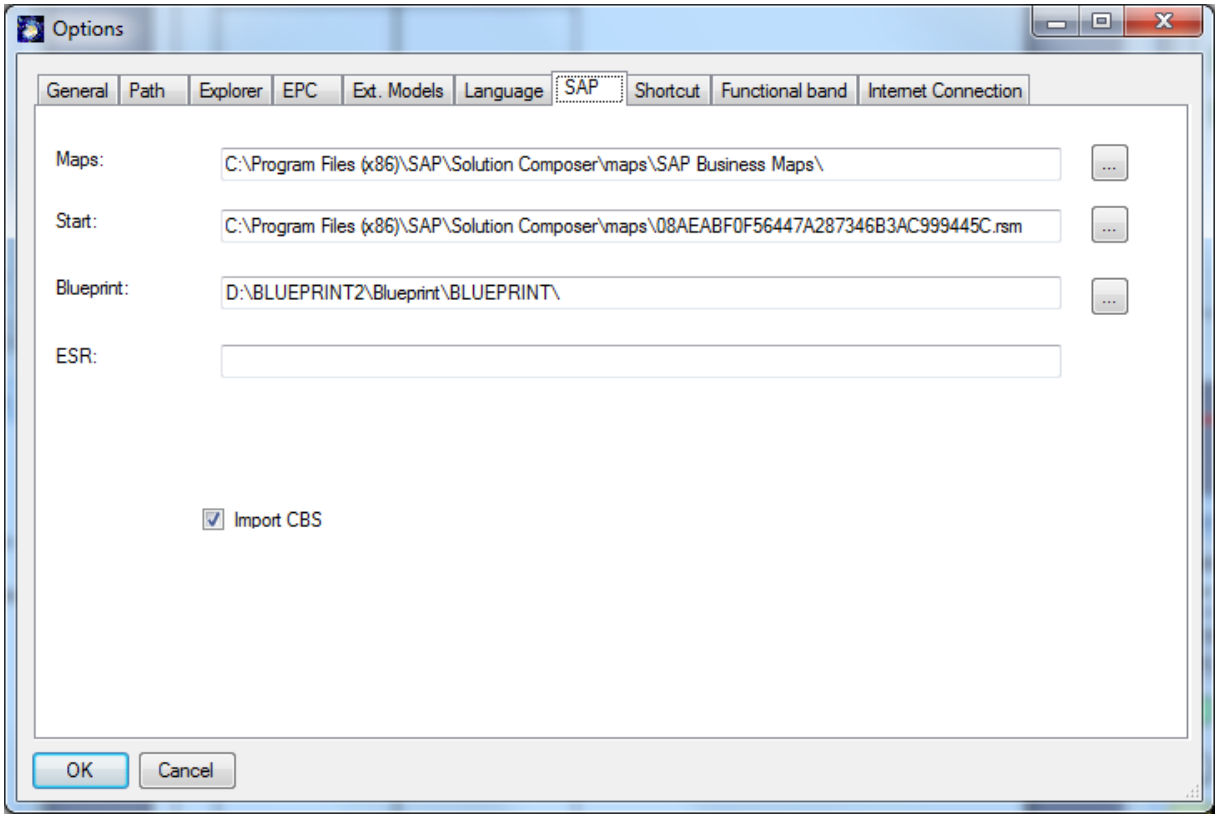


Figure 45: SAP Import Options

15. Figures

Figure 1: SemTalk Welcome Screen 4
Figure 2: Starting SemTalk EPC Edition 5
Figure 3: Adding Process Elements 9
Figure 4: Classical eEPC 10
Figure 5: EPC with swim lanes 12
Figure 6: EPC with swim lanes and input / output 13
Figure 7: Composing object oriented functions 14
Figure 8: An object-oriented EPC 16
Figure 9: Object Model 17
Figure 10: Properties Window 18
Figure 11: Function Dialog 19
Figure 12: Edit & Compose a Function Class 20
Figure 13: Function: Hum. Resource 21
Figure 14: Adding new Human Resources 22
Figure 15: Function: Measures 23
Figure 16: Function: SAP 24
Figure 17: Control Flow: Measures 25
Figure 18: Visio: Snap& Glue Options 26
Figure 19: Value Chain 26
Figure 20: Org Chart 27
Figure 21: Adding Persons 28
Figure 22: Org Chart with Persons 29
Figure 23: Adding an arbitrary Visio Shape to a process 30
Figure 24: Visio Shapes for resources in the Document Stencil 31
Figure 25: Classes of Physical Resources 31
Figure 26: Attributes imported from Visio Masters 32
Figure 27: A Resource with a Visio Shape in a Process 33
Figure 28: Physical Resource: Measures 34
Figure 29: Creating a Refinement 35
Figure 30: A new Refinement 35
Figure 31: Editing Hyperlinks 36
Figure 32: Navigation with Hyperlinks 37
Figure 33: 16 Bit Colored Process 38
Figure 34: Simulation 39
Figure 35: Dialog View 40
Figure 36: Dialog Tab 41
Figure 37: XPDL Export 42
Figure 38: AML Explorer 43
Figure 38: ARIS Import Options 44
Figure 39: Imported EPC 45
Figure 40: Import of EPML 46
Figure 41: SAP R/3 Import 47
Figure 42: SAP Solution Composer (1) 49
Figure 43: SAP Solution Composer (2) 50
Figure 44: SAP Import Options 51