Name   **cwLayoutNetwork**   **Version**

Updated by Mathias PFAUWADEL 7.1

Patch Notes

- 7.0 : Support Diagram Item and Export Mode
- 6.2 : Can save to png very big network
- 6.1 : Adding Contextual Filter for objectPage
- 6.0 : Allow Duplicate item, Changing saving system (not compatible with 5.0 capinetwork)
- 5.1 : Traduction Menu
- 5.0 : Adding Image, Save, Link Type
- 4.1 : Can now select multiple element in externalFilter
- 4.0 : Cluster, Download Image, display association custom display string
- 3.9 : External Association Filter work with zippedEdges
- 3.8 : Adding 2 buttons to zip and unzip Edge and to disable physics
- 3.7 : Network is now correctly zoom at start
- 3.6 : Adding Focus on (that all you to zoom on a node of the network)
- 3.5 : Adding Legend (only for fontawesome icon)
- 3.4 : Working with the LayoutMap
- 3.3 : Adding Complementary Item
- 3.2 : Can be display in a tab for objectPage and Indexpage (this change the evolveNode Structure, please update your evolve designer configuration)
- 3.1 : Correct double item, adding shape option, correct edge color
- 3.0 : RightClick, Highlight by External Association, merging (with bigger size) arrow if several associations
- 2.0 : Adding group, icon, Impact, globalFilter, arrow
- 1.0 : 1st version working

To be Done

- More Options

Attention

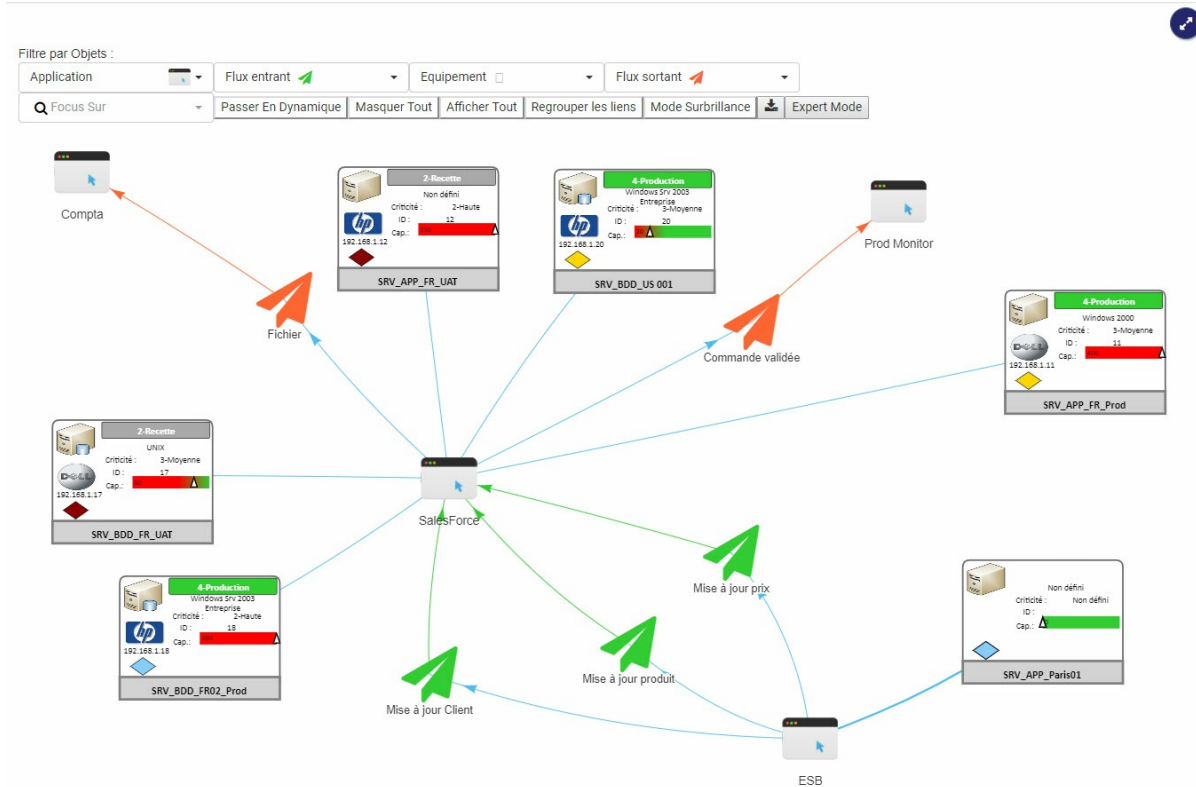Since 6.1, you need https://github.com/nevakee716/Utils/wiki to be installed

Description

Allow you to display objects and their associations in a network. The layout provide the same interaction than diagram, simple click for popOUT and double click to go on the objectPage. This layout can be use on IndexPage of ObjectPage.

In case of several association, the layout will display only one edge between node, if arrow are in different way, it will display both. The size of the edge will depend of the number of association.

Screen Shot

The layout will scan all of your hierarchy tree, and put it in a network.
You can use filter to choose which item to display

Node setup

IndexPage

Layout Name	Network
Layout ID	
Custom Display String	
Hidden Nodes	ville_20062_279036700
popOut List	macroprocess,macroprocess_diagram_popout#ville,ville_diagram_popout#microprocessus,microprocessus_diagram_popou
Specific Group List	processus_niveau_3_20004_410243396,Processus Electronique#processus_niveau_3_20004_2025026472,Processus Inform
Assign Icon to Group	Organisation,f1ad,#f0a30a
Arrow Direction	processus_niveau_2_20006_883051288,'to'#processus_niveau_2_20005_1079817132,'from'

ObjectsPage with Tab
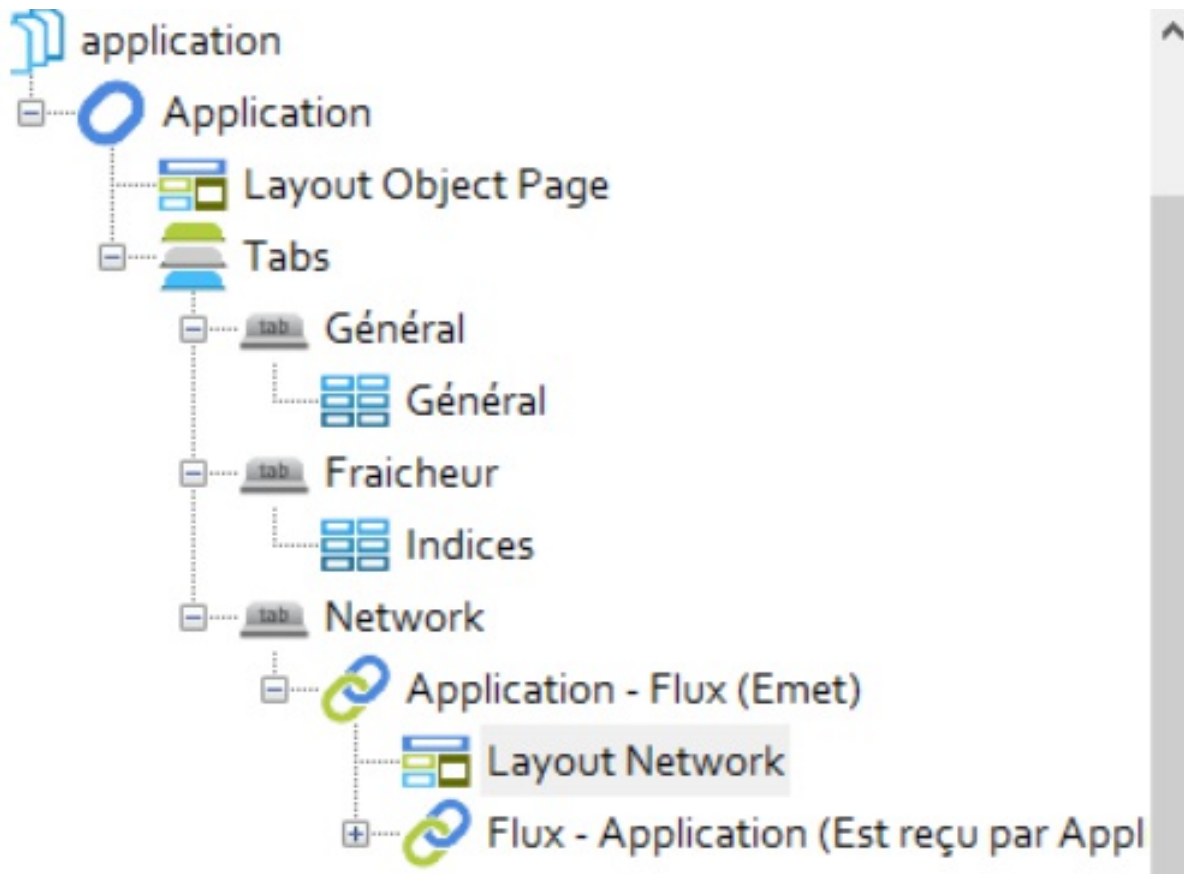
Options in the evolve Designer

MultiLines Count :

Enter the limit number of caracter where you will return line for the label of the node of the network
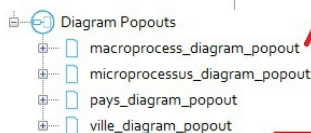
Hidden Nodes :

Set the ID of the nodes you don't want to appear in the tree, the children will be display instead. (Can be use for application flux See exemples below)

popOutList :

List the popOut that you want to be used. (ex:scriptname1,popOutName1#scriptname2,popOutName2)

Specific Group List :

Group are the different filter box of the network, by default object are sort in to different group by ObjectType(name of the group is the name of the objectype).
If you want objects of a node to be in a different group use this option : NodeID,GroupName#NodeID2,GroupName2# (ex:processus_niveau_3_20004_410243396,Processus Electronique#processus_niveau_3_20004_2025026472,Processus Informatique)

PS : If an object is present twice in the JSON object, one time in a group and one time in another group, it will only appear in the first group. So if you need to have different icon according to category or other, define all your node for them with filter and add a 3rd node after with all the objet without filter.

Be carefull when using the complementary node, the node will be place in the order of the complementary node and always after the regular node.

Group To Select On Start

List the groups you want to display when the network is started. Use comma separator

Assign Icon or Shape to Group :

You can assign a shape (ellipse, circle, database, box, diamond, dot, star, triangle, triangleDown, square
) to a group.
Use NameGroup,shape,color,borderColor(optionnal)||NameGroup2,shape2,color2,borderColor2(optionnal)

You can also assign a FontAwesome Icon to a group.(go to this website to find the code https://fontawesome.com/v4.7.0/) Use NameGroup,icon,FontAwesomeUnicode,color||NameGroup2,icon,FontAwesomeUnicode2,color2.

You can also assign image. (the color is used for the edge color)
Use NameGroup,image,imageURL,color

You can mix Icon and shape like that :
Flux,icon,f0ec,#FF8C00||Application,icon,f10a,#4F90C1||Entité,box,#FF8C00,#4F90C1

You can also assign diagram shape :
Use NameGroup,diagram,templateDiagramID,color (the color is used for the edge)
Be carefull with diagram(some region may not be supported) and you need to check the property and association (see below Expert mode)
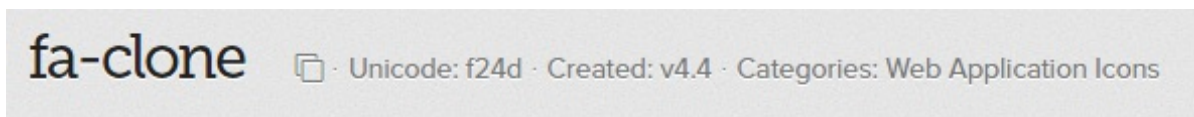
You can assign specific icon and color to item if you don't have group shape, just need to use a property with scriptname icon and color and check it in evolve designer

Arrow Direction :

This option allows you to set arrows between nodes. The syntax is the following:
node_id,'direction'
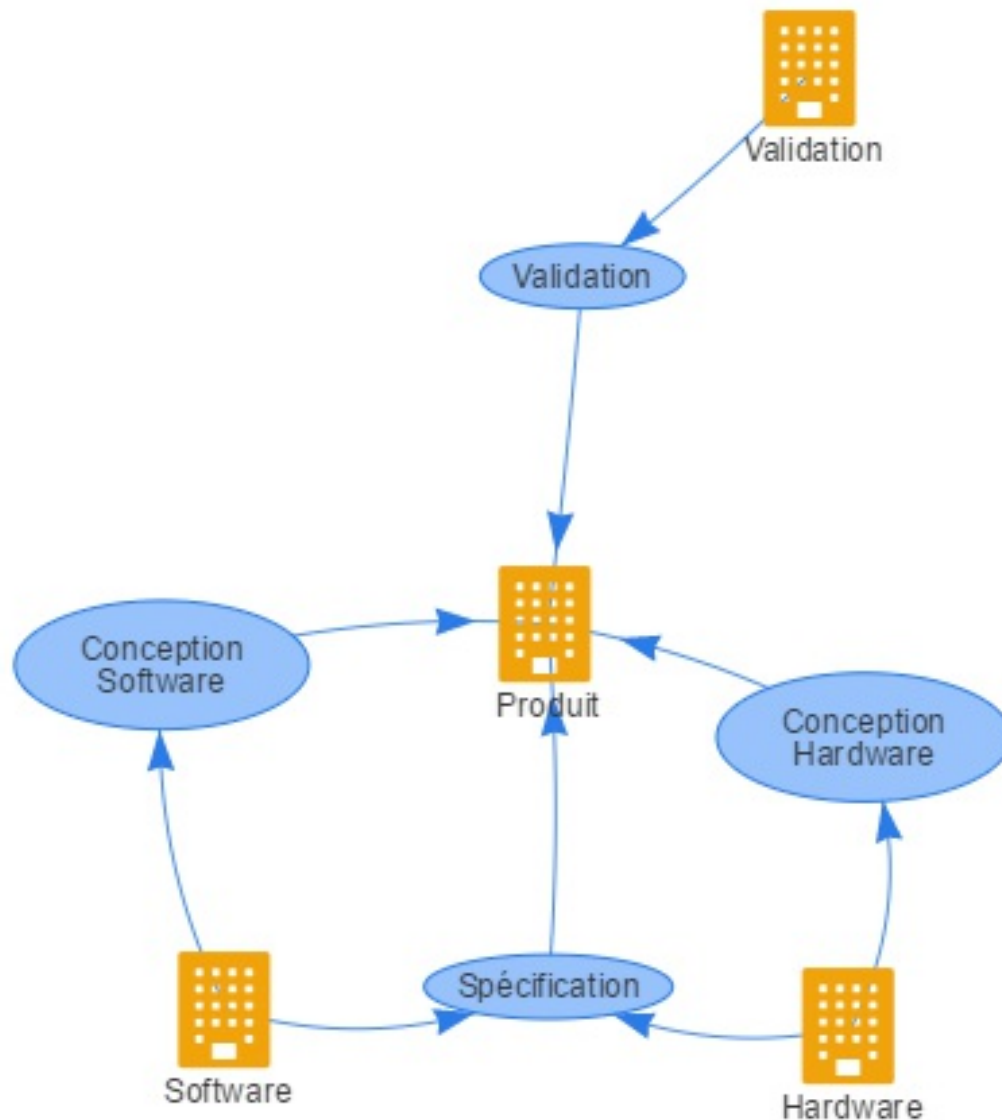You can use symbol # as a separator to set a list of directions.
The direction can be 'to' or 'from'.
For exemple, processus_niveau_2_20006_883051288,'to'#processus_niveau_2_20005_1079817132,'from'
Use to, if you want the arrow that arrive to this node.
Use from, if you want the arrow to leave from this node.
If you don't a direction to a node, it will be display without arrow.

Filter Association:

Select Evolve Nodes that will be use to filter your nodes.
nodeID:Label of the filter
For exemple : entite_20022_1066555881:Entity Filter
(Can be use for application flux See exemples below)
spliter is #

PS : the filter node should always be in first,

Filter Association Behaviour

This option will define the way your action(add close node, add connected node..., and also association filter) will work * add : this will add the selected node to your network

- highlight : this will highlight the selected node
- absolute : this will only display the selected node

Complementary Node :

If you want to add a side Node, use this option
For exemple, if you are on the objectPage of an application, you want to display sent and received flux.
Put the network under the associationNode of the sent flux, then add the node id of the received flux in this option. Use comma as a splitter

Contextual Node ID :

If you want object to be associated to your objectPage object, use this option like that :

Here in the node Emet Flux Admin, only the flow that are associated to my applications of my objects page will be display, others will be deleted

Activate Cluster

Activate the cluster option, that allow you to cluster element according to the group.
PS : the cluster doesn't duplicate the object, and it try to put the element in the bigger cluster.
To move a cluster click on the first element

Hide Cluster Menu

Hide the cluster menu, you can still init the cluster

Cluster To Select On Start

List the cluster you want to apply when the network started. The syntax is Head#Child,Child2.

Activate UnzipEdge Option

Activate the button to unzip edge

Hide Zip Edge At Start

Hide the button to zip or unzip edge

Edge Zip at Start

Zip the edge on start

Physics Button

Activate the Physics

Hide Physics Button

Hide the button to activate or deactivate the physics

Physics Initially Activated

Check in order to have the physics initially activated

Physics Json Configuration

With Expert mode, you can change the way the physics of the network will behave (gravity, edge contrainst...)
Copy the string generated by expert mode here, to activate the configuration by default

Expert Mode Available

Check to activate this Expert, this mode will help to configure your network and see the result directly (check below for more detail)
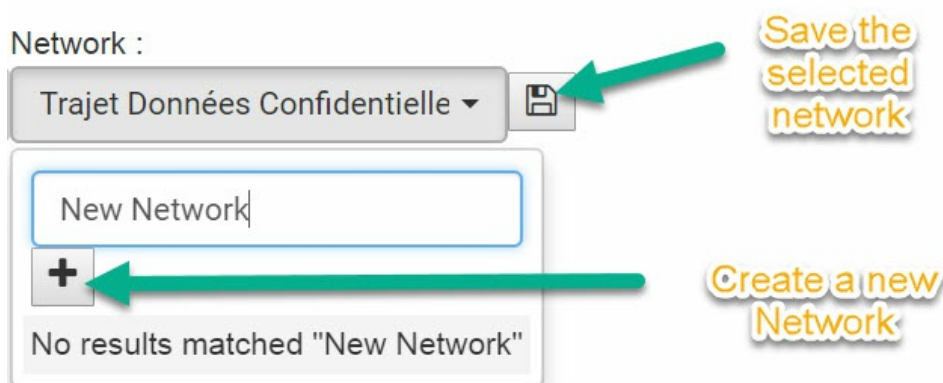
Remove Lonely Objects

Activate the option to remove lonely object. When you click on the button, it will delete from the network the node that have no connection.

Enable Edit

You can load capinetwork (node position, link selected, cluster, external filter ...)
Contributor only can save or create a capinetwork .

When you create a new network, it will create a new object and associate it with the object of your objectPage.

To use this option you need to have your metamodel ready :

Create a new objectType : CW API NETWORK with 3 properties : Configuration (memoText), Label (string) and Create On cwView (string)
Create also an association between CW API NETWORK and Any Objects
Inside C:\Casewise\Evolve\Site\bin\webDesigner\custom\Marketplace\libs\Network\src\cwLayoutNetwork.js
Fill theses variable with the scriptname of your model

```
cwLayoutNetwork.prototype.construct = function(options) {
    this.definition = {};
    this.definition.capinetworkScriptname = "capinetwork";
    this.definition.capinetworkDisplayname = "Network";
    this.definition.capinetworkToAnyAssociationScriptname = "CAPINETWORKTOASSONETWORKANYOBJECTTOANYOBJECT";
    this.definition.capinetworkToAnyAssociationDisplayName = "Present On Network";
    this.definition.capinetworkCreateOnViewScriptname = "createoncwview";
    this.definition.capinetworkConfigurationScriptname = "configuration";

    this.definition.capinetworkCreateOnViewDisplayName = cwAPI.mm.getProperty(this.definition.capinetworkScriptname,this.definition.capinetworkCreateOnViewScriptname).name;
    this.definition.capinetworkConfigurationDisplayname = cwAPI.mm.getProperty(this.definition.capinetworkScriptname,this.definition.capinetworkConfigurationScriptname).name;

    this.hiddenNodes = [];
    this.complementaryNode = [];
    this.externalFilters = [];

    this.behaviour = {};
    this.behaviour.add = false;
    this.behaviour.absolute = false;
    this.behaviour.or = false;
    this.behaviour.highlight = true;
```

Inside your evolve configuration
You need to put the association to capinetwork to the main object if you are on an objectPage
On an Indexpage, you need to add a new capinetwork node with a filter(createOnCWview = indexpage.nodeIDofTheNetworkLayout)
(don't forget to use complementary node if needed)

Load the First Cw Api Network of the list

If you check this option, the network layout will load the first capinetwork of the list

Edge Color

You can assign a color to an Edge Type following this structure

```
{
    "flux": {
        "label": "Flux Applicatif",
        "color": "#CCCC00"
    },
    "locationhasblackcoreconnectivity": {
        "color": "#000000",
        "label": "Black Connectivity"
    }
}
```

Edge Type is by default the associationTypeScriptname or the objectTypeScriptName(in case of hiddenNode)
To use association in the EdgeType, you need to add the intersection node, and select the uuid.
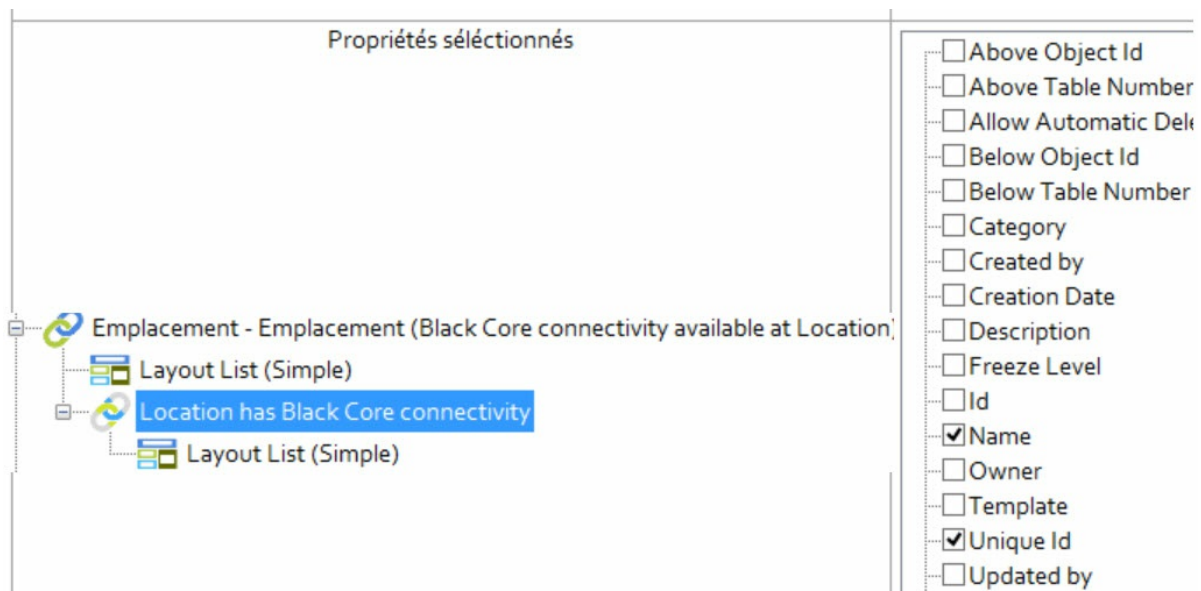
Edge Type To Select on Start

List the link Type you want to select On Start. Splitter is a comma

Assign associationNodeId to EdgeType

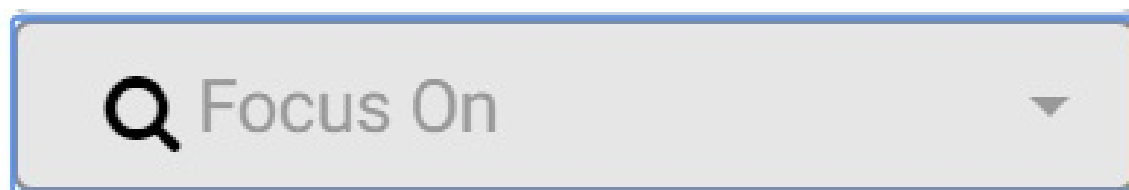In the same way, you assign group with Node, you can do that with the EdgeType
For exemple :
emplacement_20196_1480647536,toto#emplacement_20196_148043224,tata

Duplicate the nodeIDS

Put the ID of the node that will be duplicate, so when the network parse your json tree, if the object already exist it will create a new node.

Focus On

This menu allow you to zoom on a object prevent on the network, it will go to his position, zoom on it, and select it.
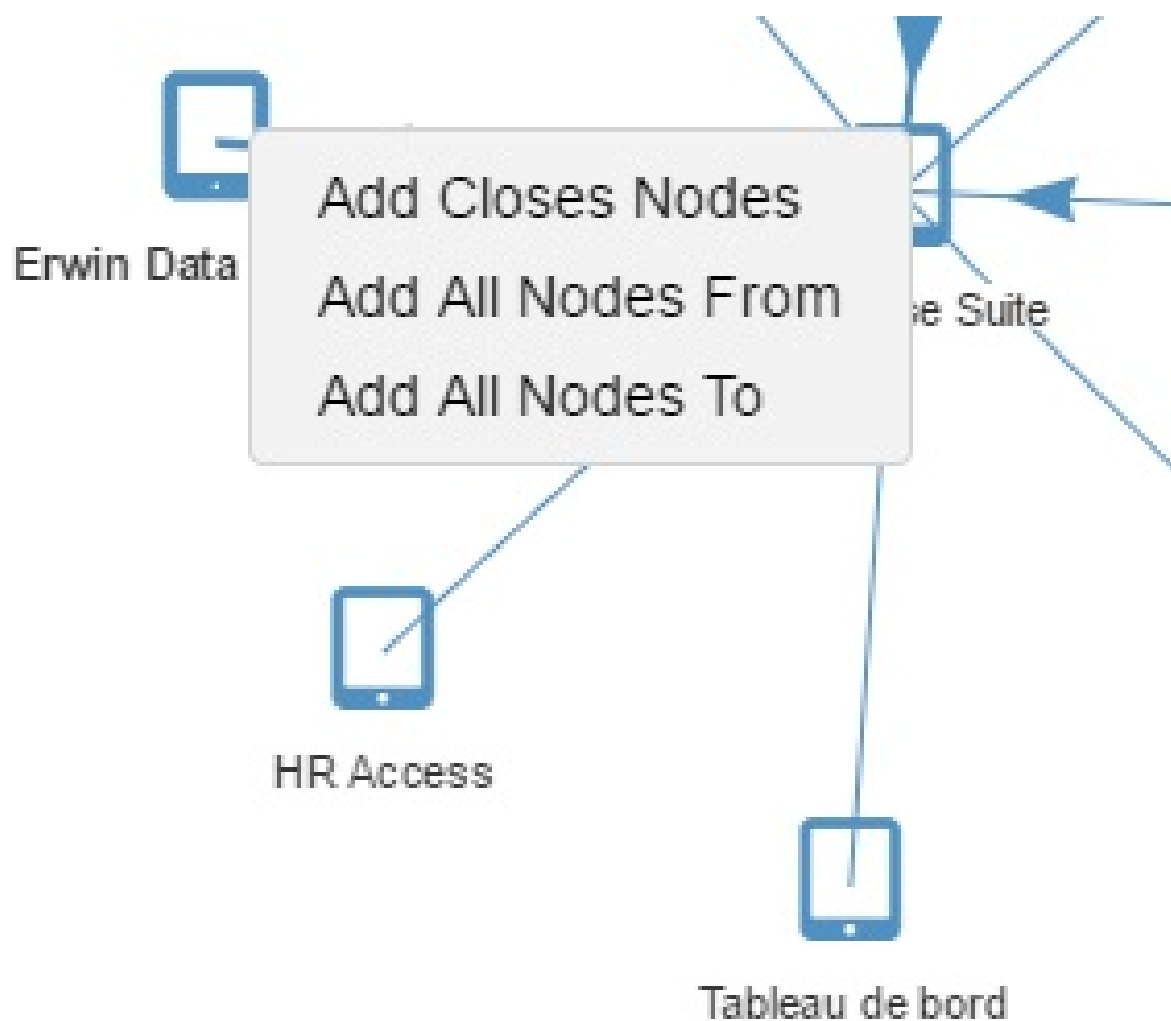
Button Action

Disable / Enable Physics : Allow to disable the physics and freely move the node

Zip/ UnZip Edges: Allow to unmerge the edges, in case of hidden nodes, this will disable the name od the hidden object on the edge.

RightClick Action

You can rightClick on a node to display :

Add Closes Nodes

This will add on the network, the node that are connected to the selected node

Add All Nodes From

This will add on the network, the node that have a path (even indirect) that leave from the selected Node

Add All Nodes To

This will add on the network, the node that have a path (even indirect) that go in the selected Node

Remove Node

This will remove the node

Remove Close Nodes

This will remove all the node that are directly connected to the object

Add All Connected Nodes

this will add all node that are connected directly and indirectly to the selected node

Behaviour Button

By clicking, on the button you can change the behaviour of the external association filter :

- Absolute : disable all node, then add the node of the external filter
- Addition : Add the node of the external filter
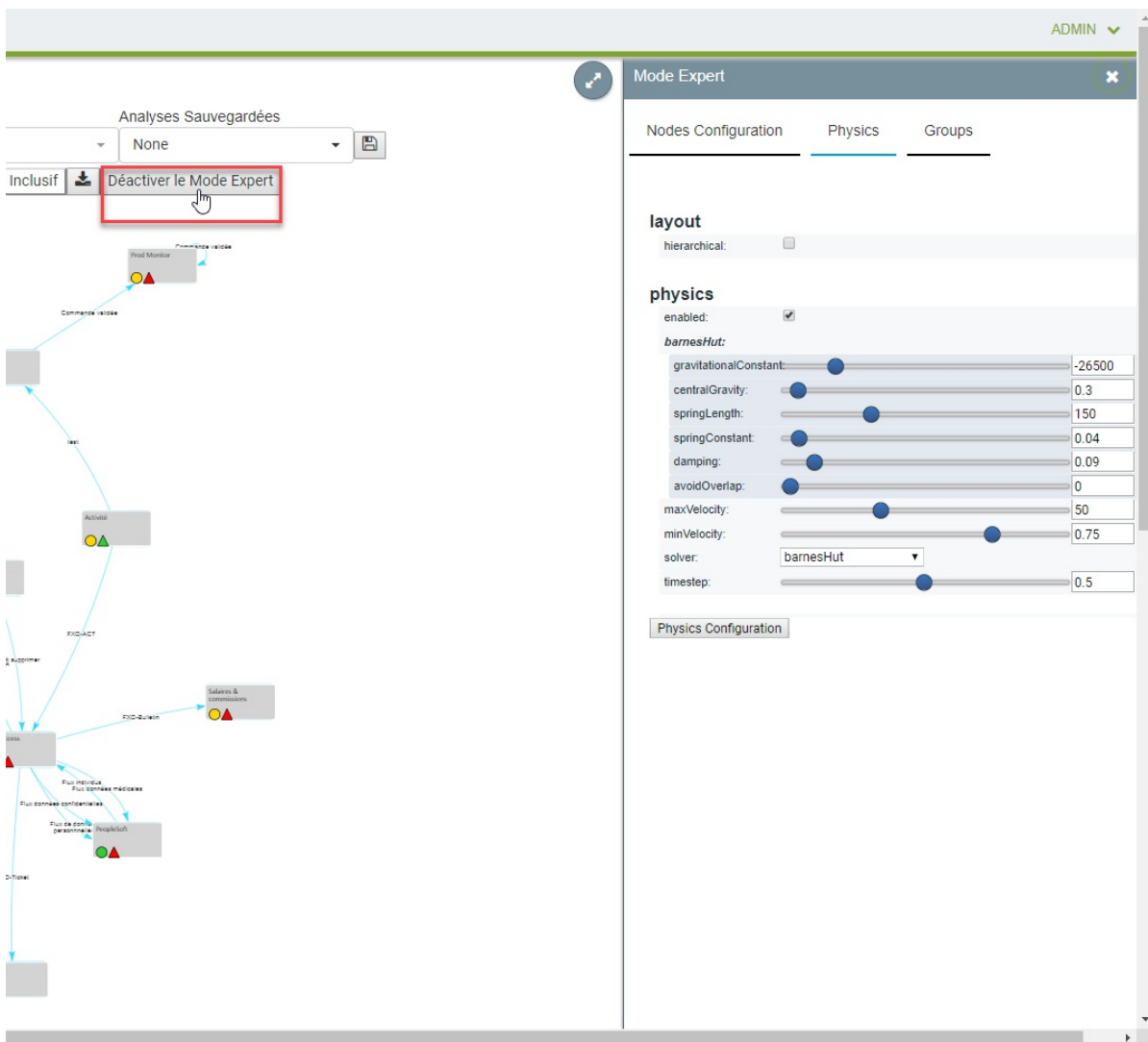- Highlight : Hightlight the node of the external filter

Download Button

You can click on the download button , to download a png of the network
(on huge network, it work only with edge)

Expert Mode

If you use the expert mode, you need to create a evolve index page, which contains all the diagram template
z_diagram_template
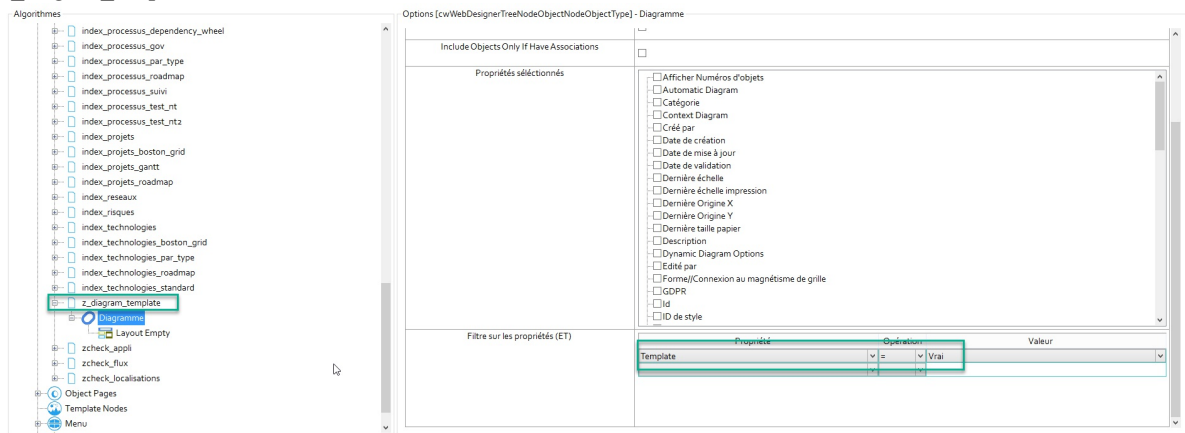
Click on the button to activate the expert mode

The Expert mode contains 3 tabs

Physics

This tabs allow to play with the physics of the network
Once you find a physics that you like, click on the physics configuration button, this will copy the json string config inside your clipboard, you can now paste it inside evolve configuration.

You can find details about the option here
http://visjs.org/docs/network/physics.html

Groups

Mode Expert

Nodes Configuration   Physics   Groups

☑ | Application | Diagram ▾ | 🟦 | Template Netw ▾
☐ | ApplicationHidden | Box ▾ | ⬜ | ⬛

➕

Config String for Evolve Designer

(click to copy to clipboard) :

Icon Group

Group Active At Start

Information Missing on Evolve
Configuration for Diagram Region :

application_20006_473758635 :

Please Add the Following Properties : Contient des informations personnelles,

On this tabs, you can manage your groups styles and directly see the result in your diagram.

If you select diagram, you can choose your template and on the menu Information Missing on Evolve Configuration for Diagram Region, you will see all the data that are missing from your evolve configuration.
In the screen, you can see that on the node application_20006_47375863, we need to select the property <> in order to have the diagram region fully functionnal.

Once you configure your group style, click on icon group button to copy the configuration string inside the clipboard, then paste it inside your evolve designer layout network configuration inside Assign Icon to Group

You can also check the group that will be selected on start using the checkbox. Once done, click on the button group Active at start to copy the configuration string inside the clipboard then paste it inside evolve

Nodes Configuration

On this tabs, you can play on with the option hidden nodes, complementary nodes, filter association and Arrow Direction.
On the top area you can see a reproduction of your evolve node, select a node and configure the option.

Once done, click on the button group Active at start to copy the configuration string inside the clipboard then paste it inside evolve.

PS : After changing option inside this tabs, the focus search might stop working, reload your page to correct the issue
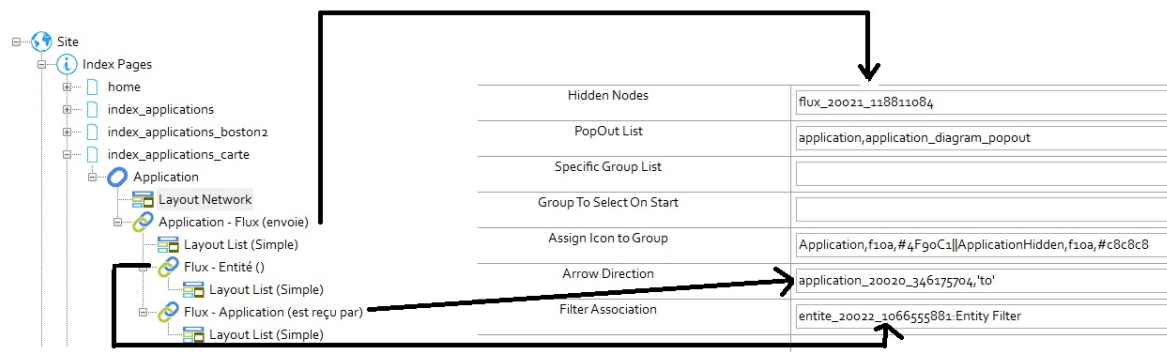
Exemple : Application Map

Here we have the following metamodel :

Application connected to flux connected to Application
and flux connected to Entity
On the network, we want to display the Application and display the flux as arrow (depending if the flux is emit or receive)

For that, we use the following configuration :

Hidden Nodes	flux_20021_118811084
PopOut List	application,application_diagram_popout
Specific Group List	
Group To Select On Start	
Assign Icon to Group	Application,f10a,#4F90C1|ApplicationHidden,f10a,#c8c8c8
Arrow Direction	application_20020_346175704,'to'
Filter Association	entite_20022_1066555881:Entity Filter

ApplicationHidden correspond to the icon and the colour that the unhighlighted node will take.
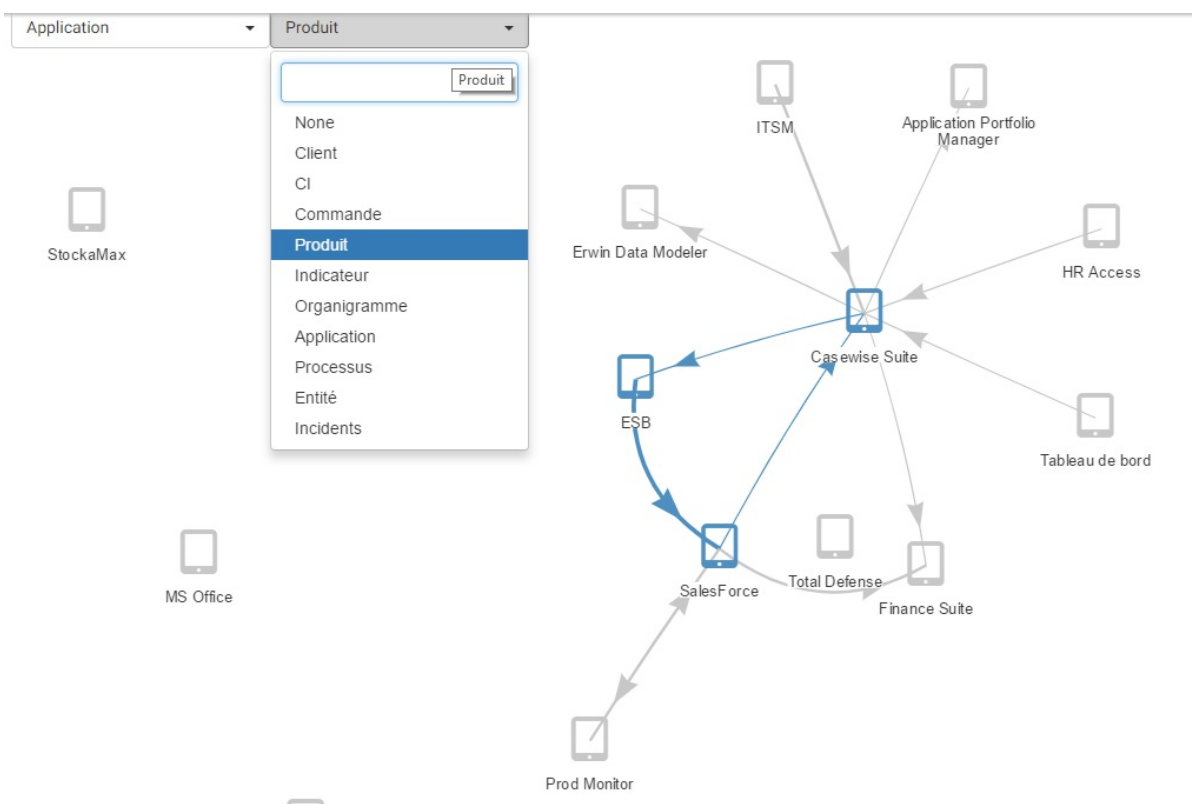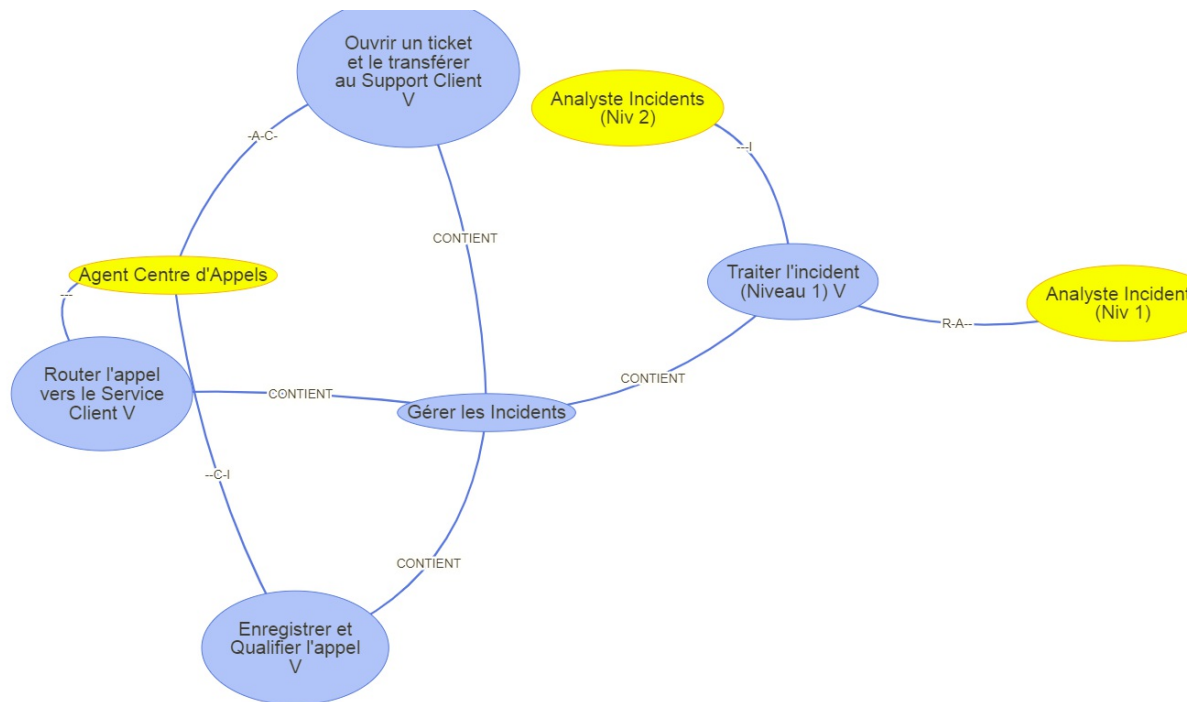

You can now go in the Entity Filter and highlight only the node that are connected to a flux that use the selected entity.
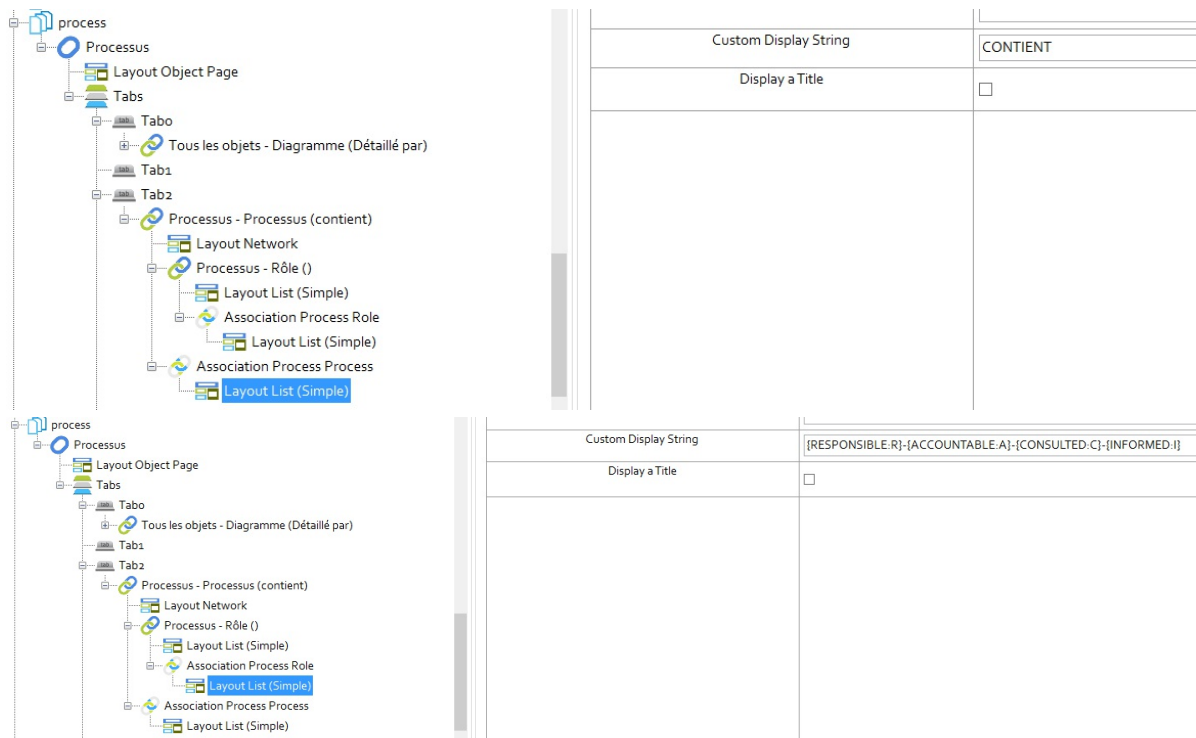
PS : if you selected an entity, and all the node connected to the entity are not on the network yet, the entity will add them

Exemple : Organisation Map
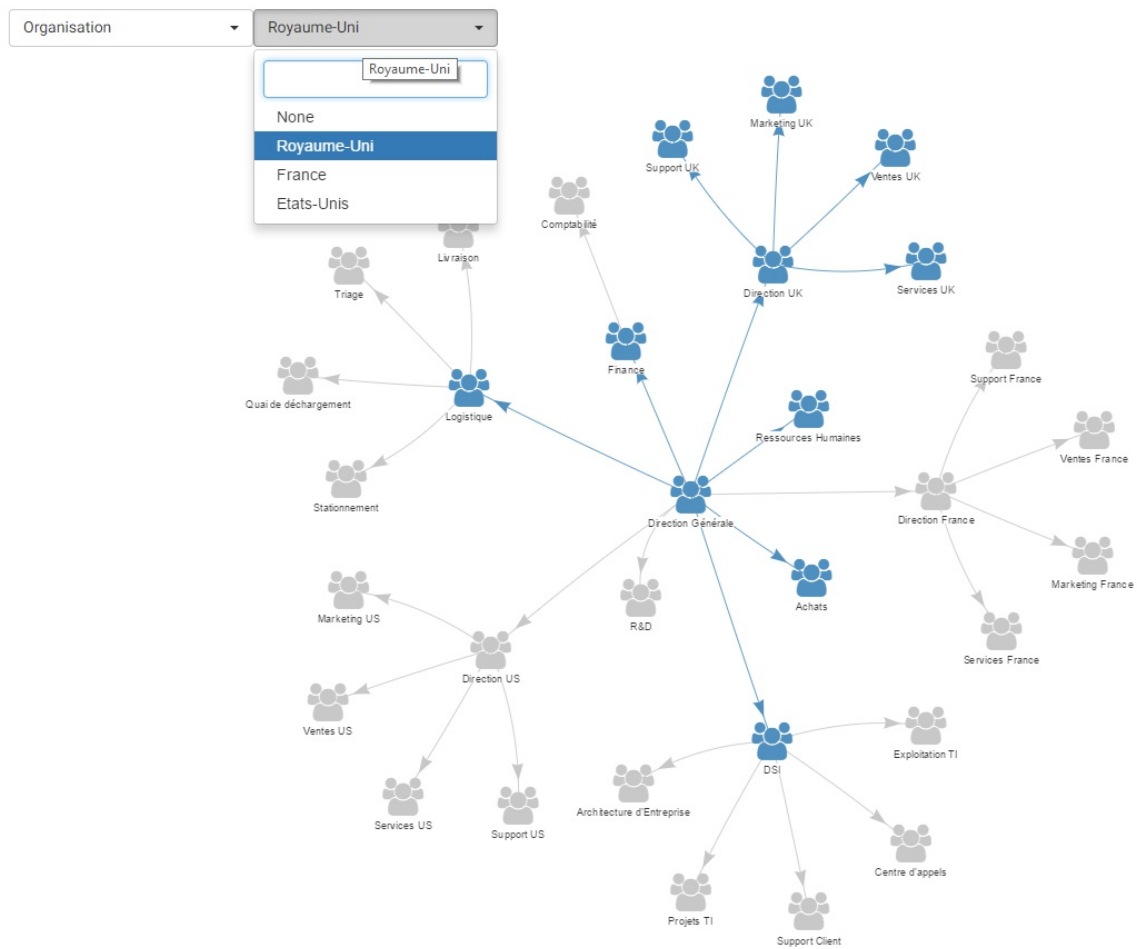
Exemple : Using Custom Display String to display RACI on the network

Custom Display String	CONTIENT
Display a Title	☐

process
  Processus
    Layout Object Page
    Tabs
      Tab0
        Tous les objets - Diagramme (Détaillé par)
      Tab1
      Tab2
        Processus - Processus (contient)
          Layout Network
          Processus - Rôle ()
            Layout List (Simple)
            Association Process Role
              Layout List (Simple)
          Association Process Process
            Layout List (Simple)

Custom Display String	{RESPONSIBLE:R}-{ACCOUNTABLE:A}-{CONSULTED:C}-{INFORMED:I}
Display a Title	☐

process
  Processus
    Layout Object Page
    Tabs
      Tab0
        Tous les objets - Diagramme (Détaillé par)
      Tab1
      Tab2
        Processus - Processus (contient)
          Layout Network
          Processus - Rôle ()
            Layout List (Simple)
            Association Process Role
              Layout List (Simple)
          Association Process Process
            Layout List (Simple)

don't forget to enable this unzip edge, cause label of the edge will be only visible if edge are unzip