

**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

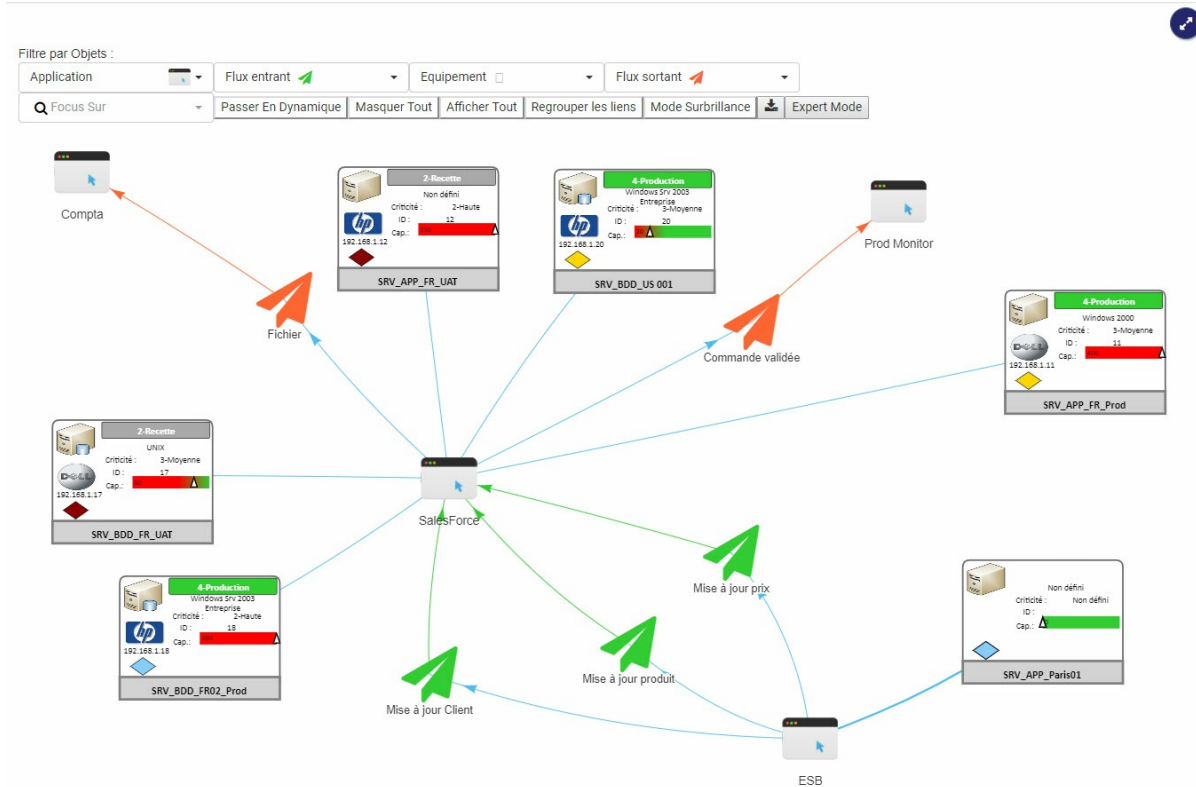
## Description

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



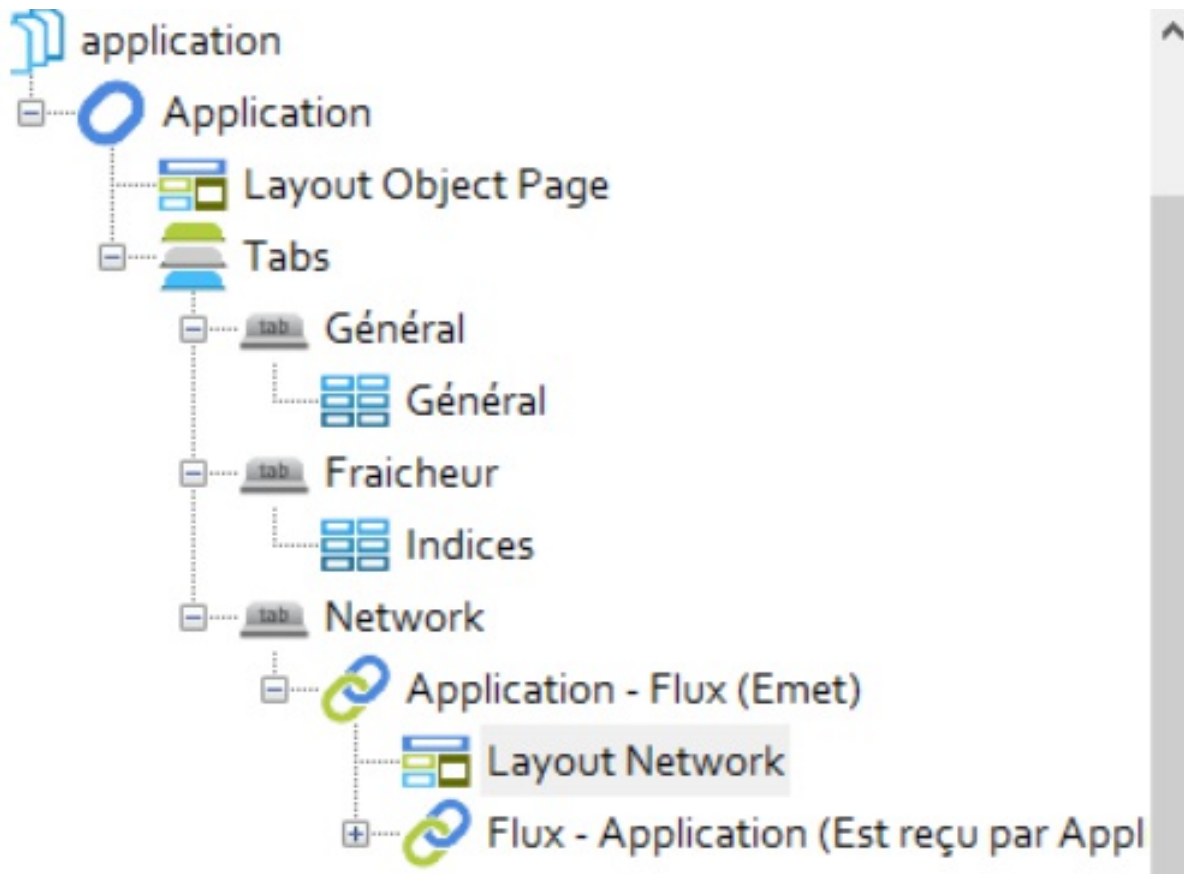
## Node setup

### IndexPage

index_network_organisations	
Organisation	
Layout Network	
Organisation - Processus-niveau 2 (réalise)	
Layout Empty	
Processus-niveau 2 - Processus-niveau 3 (Elec)	
Processus-niveau 2 - Processus-niveau 3 (Info)	
Processus-niveau 2 - Processus-niveau 3 (Other)	
Organisation - Processus-niveau 2 (supervise)	
Layout List (Simple)	
Processus-niveau 2 - Processus-niveau 3 (Elec)	
Processus-niveau 2 - Processus-niveau 3 (Info)	
Processus-niveau 2 - Processus-niveau 3 (Other)	
Organisation - Ville (est dedans)	
Layout List (Simple)	
Ville - Pays (appartient)	

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_popout
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 character where you will return line for the label of the node of the network

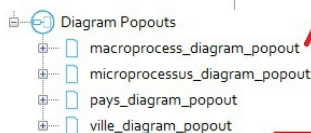
### Hidden Nodes :

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)

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_popout
Specific Group List	processus_niveau_3_20004_410243396,Processus Electronique#processus_niveau_3_20004_2025026472,Processus Inform
Assign Icon to Group	Organisation,f1ad,#ba30a
Arrow Direction	processus_niveau_2_20006_883051288,'to'#processus_niveau_2_20005_1079817132,'from'



## 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

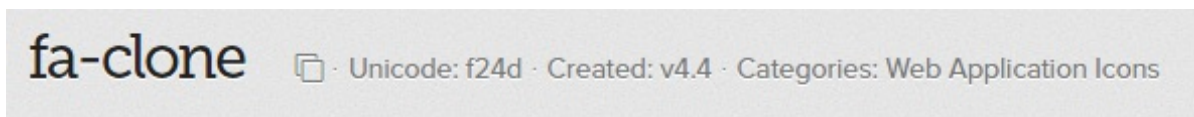
You can mix Icon and shape like that :

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.

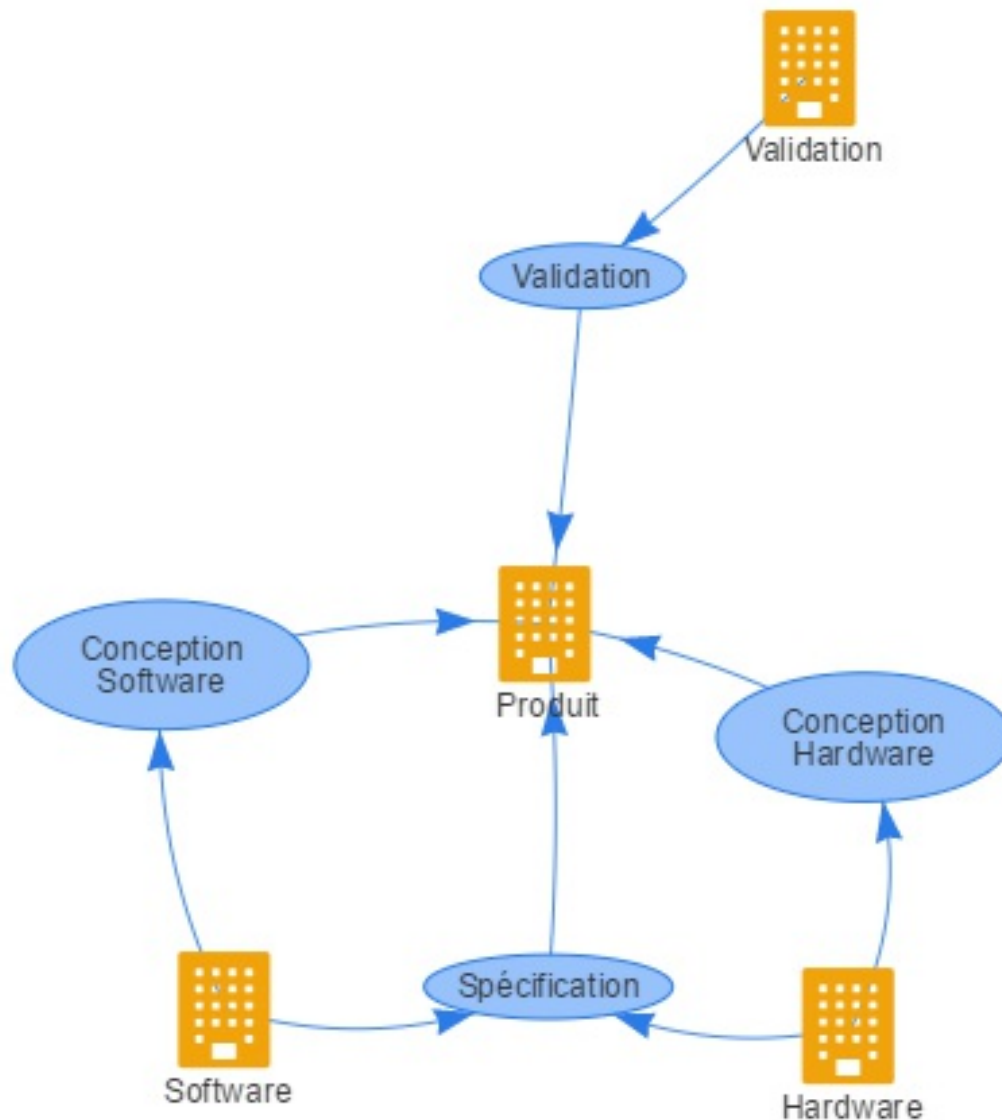
The direction can be 'to' or 'from'.

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 :



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 constraint...)

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)

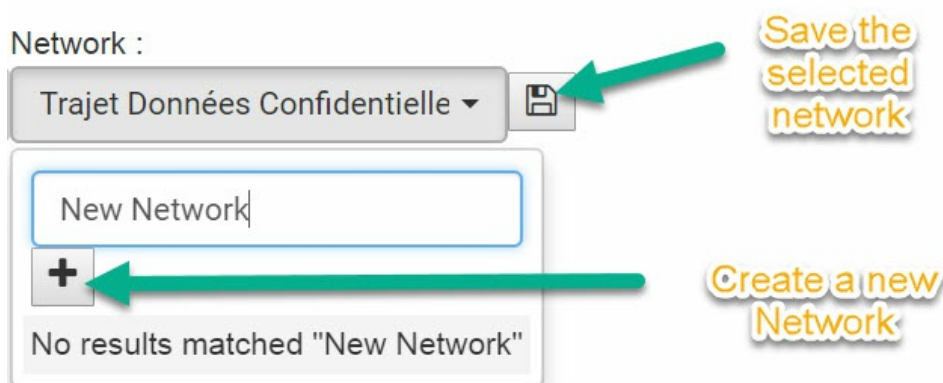
### Remove Lonely Objects

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 these 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.modelIdOfTheNetworkLayout)

(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

```

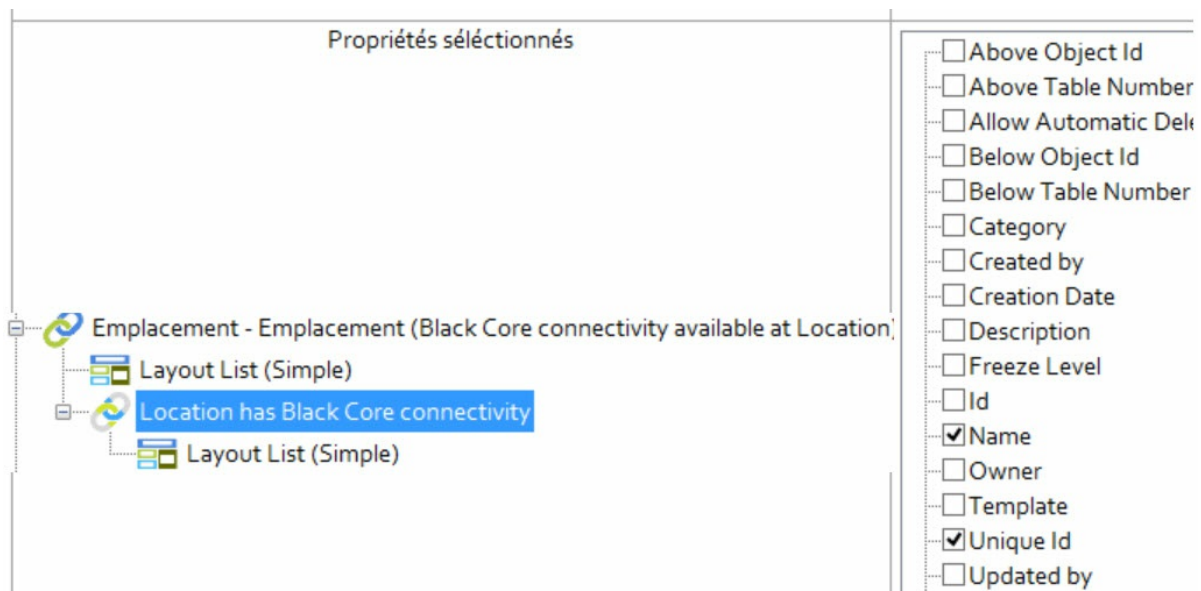
{
  "flux": {
    "label": "Flux Applicatif",
    "color": "#CCCC00"
  },
  "locationhasblackcoreconnectivity": {
    "color": "#000000",
    "label": "Black Connectivity"
  }
}

```

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

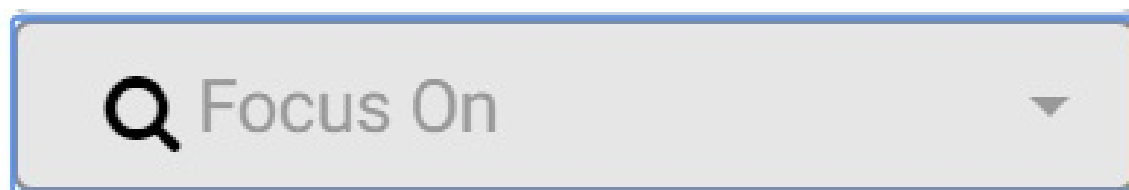
For exemple :

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 present on the network, it will go to his position, zoom on it, and select it.

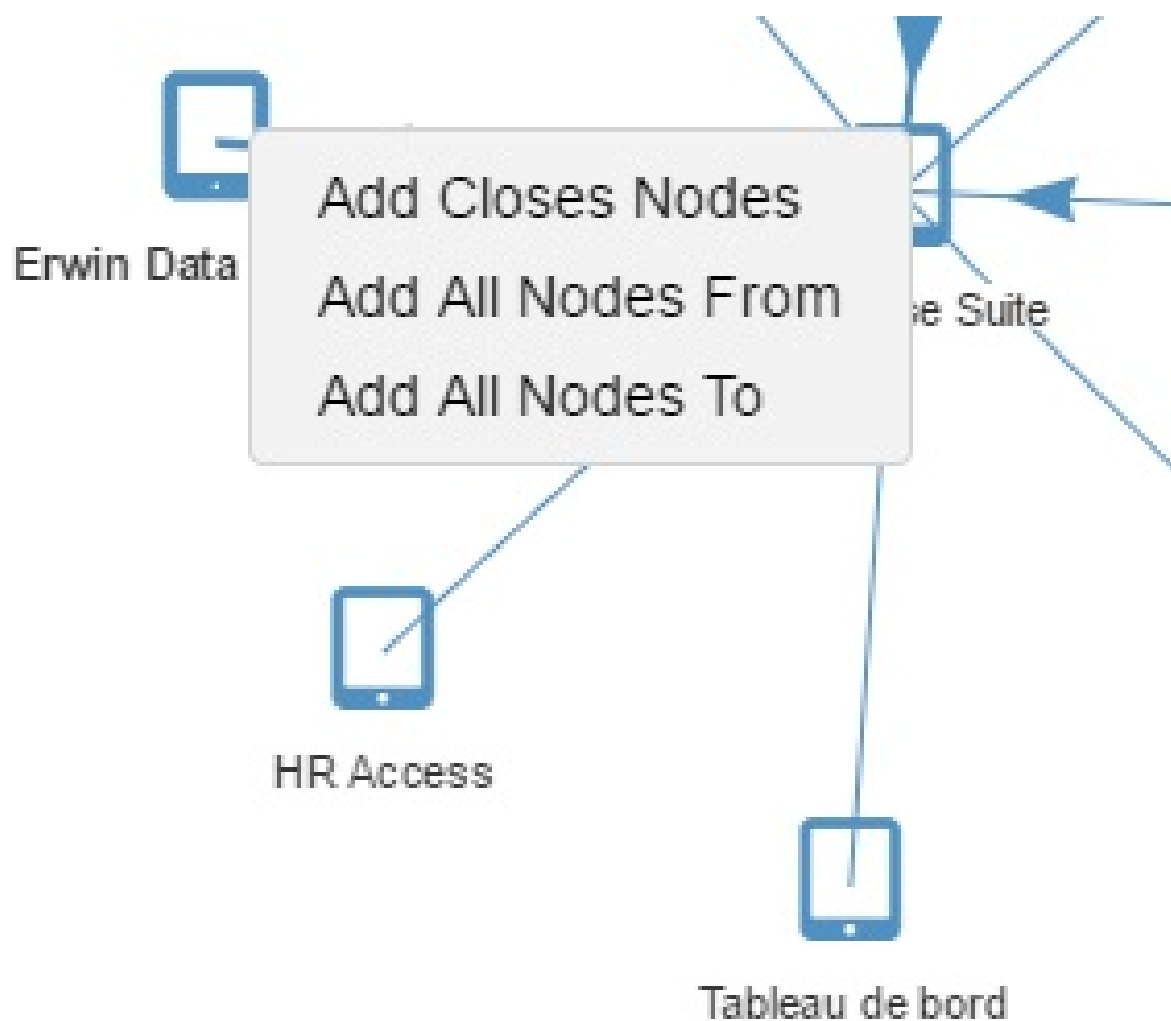
## Button Action

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 of 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 :

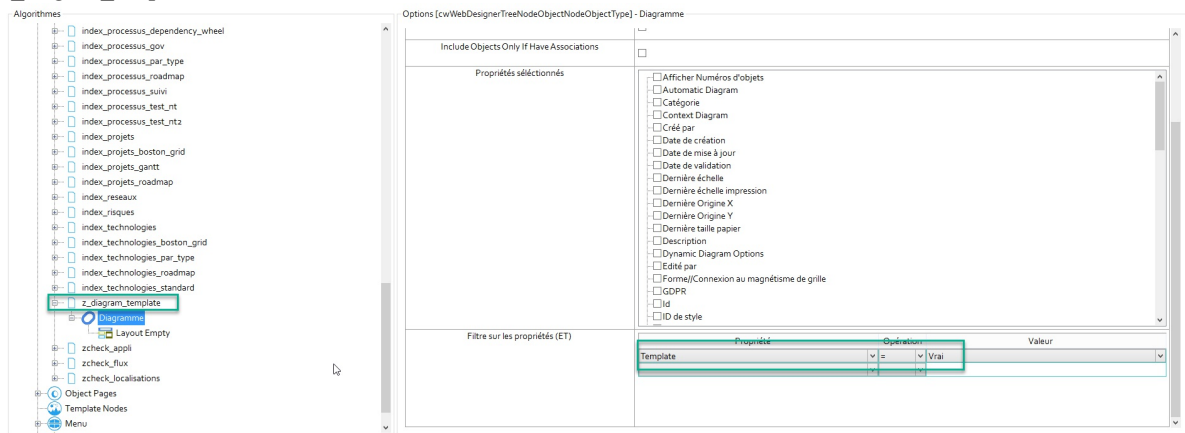
- Absolute : disable all node, then add the node of the external filter
- Addition : Add the node of the external filter
- Highlight : Highlight the node of the external filter

## Download Button

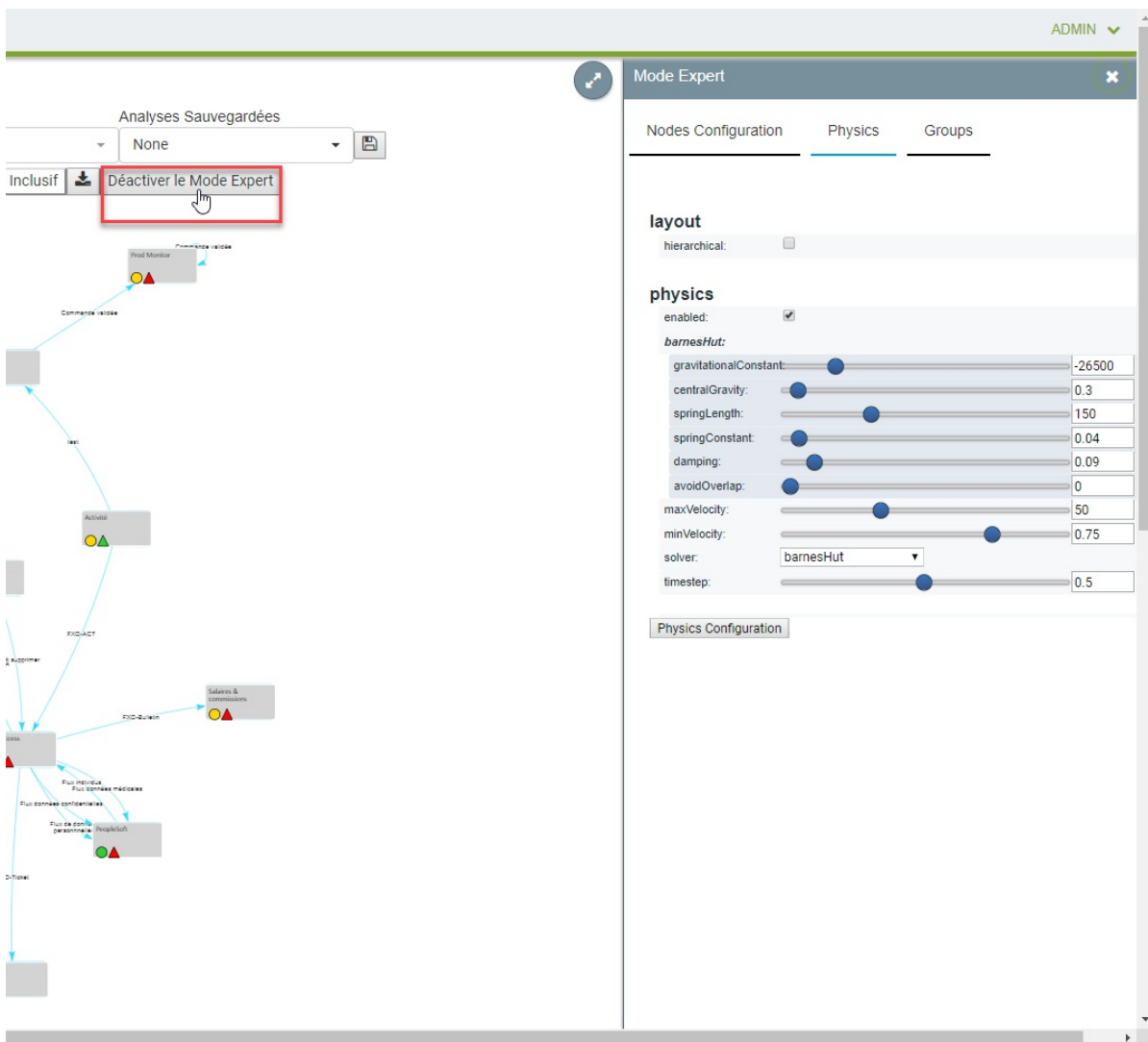
You can click on the download button , to download a png of the network  
(on huge network, it work only with edge)

## 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

<input checked="" type="checkbox"/>	Application	Diagram		Template Netw
<input type="checkbox"/>	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 fonctionnal.

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

Mode Expert

Nodes Configuration

Physics

Groups

Application

Application - Business Terms (contient)

Donnée fonctionnelle - Processus (est utilisé lors)

Processus - Risque ()

Tous les objets - Document ()

Tous les objets - Amélioration (A comme amélioration)

Processus - CW User (A comme pilote)

Processus - Indicateur (est évalué par)

Flux (envoi)

Business Terms (transporte)

Donnée fonctionnelle - Processus (est utilisé lors)

Flux - Entité (véhicule)

Application(est reçu par)

Application - Fonctionnalité (fournit)

CW API NETWORK

Node Configuration

Node :

Node ID :

Complementary Node : ☐


Complementary Node :

Donnée fonctionnelle - Processus (est utilisé lors)

processus\_20137\_887145719

☐

☐

Duplicate Node : ☐  
 Hidden Node : ☐  
 External Filter :    
 Specific Group : None ▼  
 Arrow Direction : None ▼

## Config String for Evolve Designer

(click to copy to clipboard) :

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

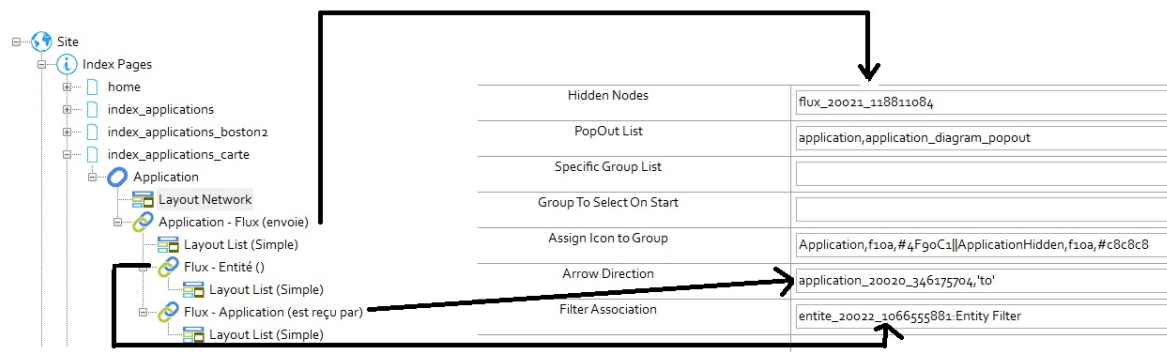
Here we have the following metamodel :

Application connected to flux connected to Application  
and flux connected to Entity

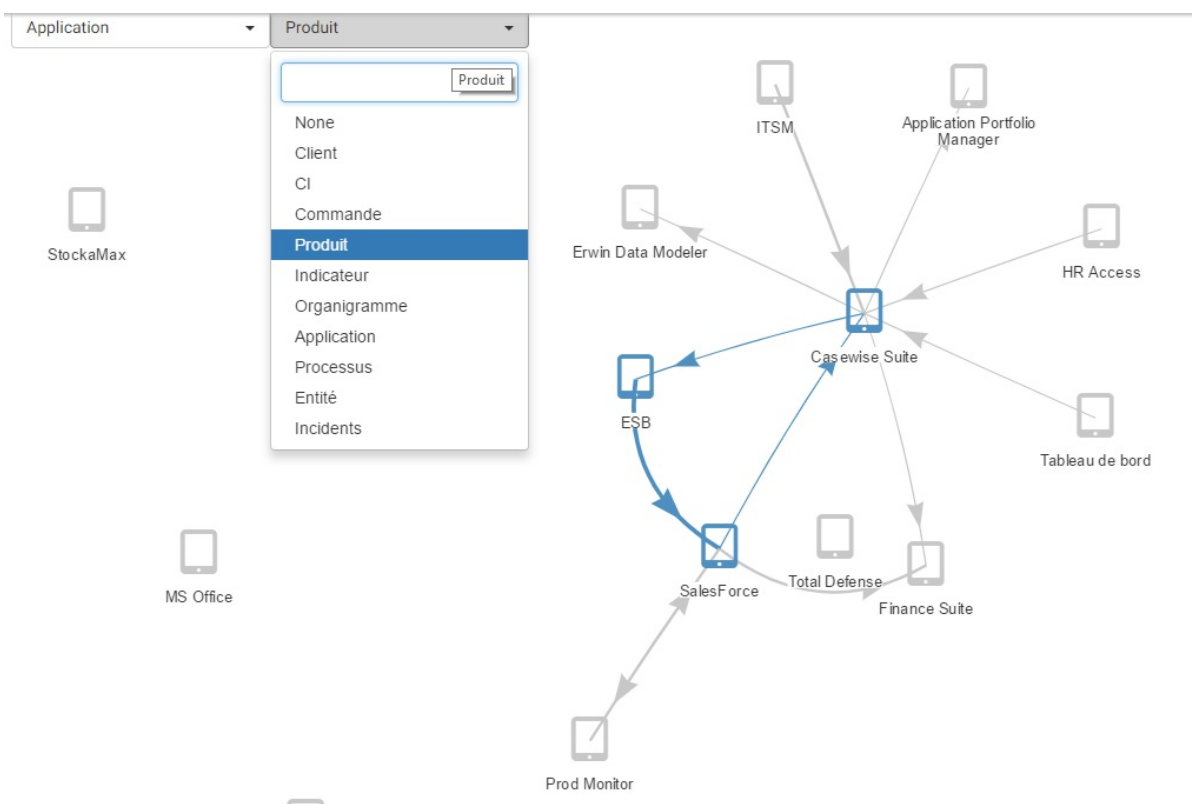
On the network, we want to display the Application and display the flux as arrow (depending if the flux is emit or receive)

For that, we use the following configuration :





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



process

Processus

Layout Object Page

Tabs

Tabo

Tous les objets - Diagramme (Détailé 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	CONTIENT
Display a Title	<input type="checkbox"/>

process

Processus

Layout Object Page

Tabs

Tabo

Tous les objets - Diagramme (Détailé 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	<input type="checkbox"/>

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