

# Xcos Automatic Layout

## Xcos - Optimal Link Style

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## 1 Implementation

### 1.1 Design

- 1) Change the style of links one by one in a loop.
- 2) Check the two points are aligned and there are no blocks between them. If so, make the link with straight style and without turning points.
- 3) Otherwise, use two points each of which is a distance away from the port (if it was SplitBlock, use it directly).
- 4) Then start with these two new points, find the route with less turning points if possible.

### 1.2 Common Files

**These file should be modified:**

CHANGES\_5.6.X

modules/xcos/locales/xcos.pot

xcos/help/en\_US/xcos\_menu\_entries.xml

xcos/help/gui/xcos\_menu\_entries/en\_US/xcos\_menu\_format\_link\_style.png

xcos/help/images/xcos\_menu\_entries/en\_US/xcos\_link\_optimal\_en\_US.png

modules/xcos/locales/fr\_FR.po

xcos/help/fr\_FR/xcos\_menu\_entries.xml

xcos/help/gui/xcos\_menu\_entries/fr\_FR/xcos\_menu\_format\_link\_style.png

xcos/help/images/xcos\_menu\_entries/fr\_FR/xcos\_link\_optimal\_fr\_FR.png

### 1.3 Relative Files

**Create:**

org.scilab.modules.xcos.link.actions.StyleOptimalAction.java

org.scilab.modules.xcos.utils.XcosRoute.jav

### Modify:

org.scilab.modules.xcos.XcosTab.java  
 org.scilab.modules.xcos.link.BasicLink.java  
 org.scilab.modules.xcos.link.actions.StyleAction.java  
 org.scilab.modules.xcos.utils.XcosMessages.java

## 2 Screenshot

This is the screenshot for the help.

<u>H</u> orizontal	H
<u>S</u> traight	S
<u>V</u> ertical	V
<u>O</u> ptimal	O

This menu allows to change the style of the link.  
 First select the link and select the appropriate menu item or use the shortcuts (H), (S), (V), (O). The following list shows the results obtained.

- Horizontal (H)



- Straight (S)



- Vertical (V)



- Optimal (O)

