

Table 1. Revision table of existing applications and libraries

Name	Description	Pros	Cons	Quality Attributes			
				EXT	MOD	POR	USA
Prograph	Prograph ¹ was developed to create flow diagrams connecting boxes with lines. It was an old project, but it was one of the first visual programming languages.	✓ Boxes connected by lines which represent a relationship between classes.	✗ It doesn't exist anymore.	-	-	-	-
Simulink	Simulink ² permits to design and simulate a mathematical system written in Matlab. It uses the drag-and-drop to move the blocks from the Library Browser to the canvas. It is possible to decide which block has to be executed.	✓ The interaction and the GUI are a really good example to develop a simple and intuitive interface.	✗ It is included only in Matlab application so it is not OpenSource.	-	-	✓	✓
Autodesk Softimage	Softimage ³ is an application which has a graphical editor to implement applications over Autodesk framework.	✓ The interaction is impressive and the GUI uses really good and interesting techniques.	✗ It is included only in Autodesk application so it is not OpenSource.	-	-	✓	✓
PureData	Pure Data ⁴ is a visual programming environment to implement audio, video and image processing. In Intml project it is produced an XML with the description of the diagram.	✓ OpenSource written in C++ ✓ Multiplatform	✗ It is difficult to read and to understand the code. ✗ The GUI is very simple.	✓	-	✓	-
OpenWire	OpenWire ⁵ is a library to develop applications "without writing one line of code". The principal objective is to generate code from the diagram drawn in the visual tool.	✓ OpenSource ✓ It was conceived as a general visual programming language. The basic concepts are the same to all the applications which use black box metaphor.	✗ It is a library made to work with Builder C++ or Delphi.	✓	-	-	✓
Quartz Composer	Quartz Composer ⁶ has a visual programming environment that creates processing modules called 'compositions'. These modules are able to process and visualize graphical data. "The Quartz Composer Editor allows users to create motion graphics compositions without having to write code"	✓ The user interface is neat and it has the Mac interaction and window style. ✓ It is possible to create new plug-ins into the visual editor.	✗ The classes were written in Objective-C and it is a Mac application.	✓	-	-	✓
FxEngine	FxEngine ⁷ is an Open C++ framework that can be applied in signal and image processing among other application types.	✓ OpenSource written in C++ ✓ The usability is simple but it keeps in mind the most important actions. ✓ Good documentation of all the classes (.h , .lib and .dll are described in the user guide) ✓ It uses wxWidgets and boost which are included in BBTK.	✗ The framework is available just for Windows and Linux platforms ✗ It takes time to understand the code and the things needed, but it is possible to modify it.	✓	✓	-	✓
Open Inventor	Open Inventor is a toolkit that presents a visual programming language which simplifies the implementation of graphics software. It has an editor that manages the interaction and visualization of the models. It is the graphical editor used in Mevislab application.	✓ OpenSource ✓ The editor tool manages perfectly the interaction with the models.	✗ Only Linux source code is available. ✗ It is difficult to read and to understand the code.	✓	✓	-	✓

¹ Prograph: <http://en.wikipedia.org/wiki/Prograph>

² Simulink: <http://www.mathworks.com/products/simulink/>

³ SoftImage: <http://usa.autodesk.com/adsk/servlet/pc/index?siteID=123112&id=13571168>

⁴ Pure Data: <http://puredata.info/>

⁵ OpenWire : <http://www.mitov.com/html/openwire.html>

⁶ Quartz Composer : <http://developer.apple.com/graphicsimaging/quartzcomposer/>

⁷ FxEngine : <http://www.smprocess.com/>