Glitch

A Visual Compiler

Document Version 1.1

Table of Contents

Introduction

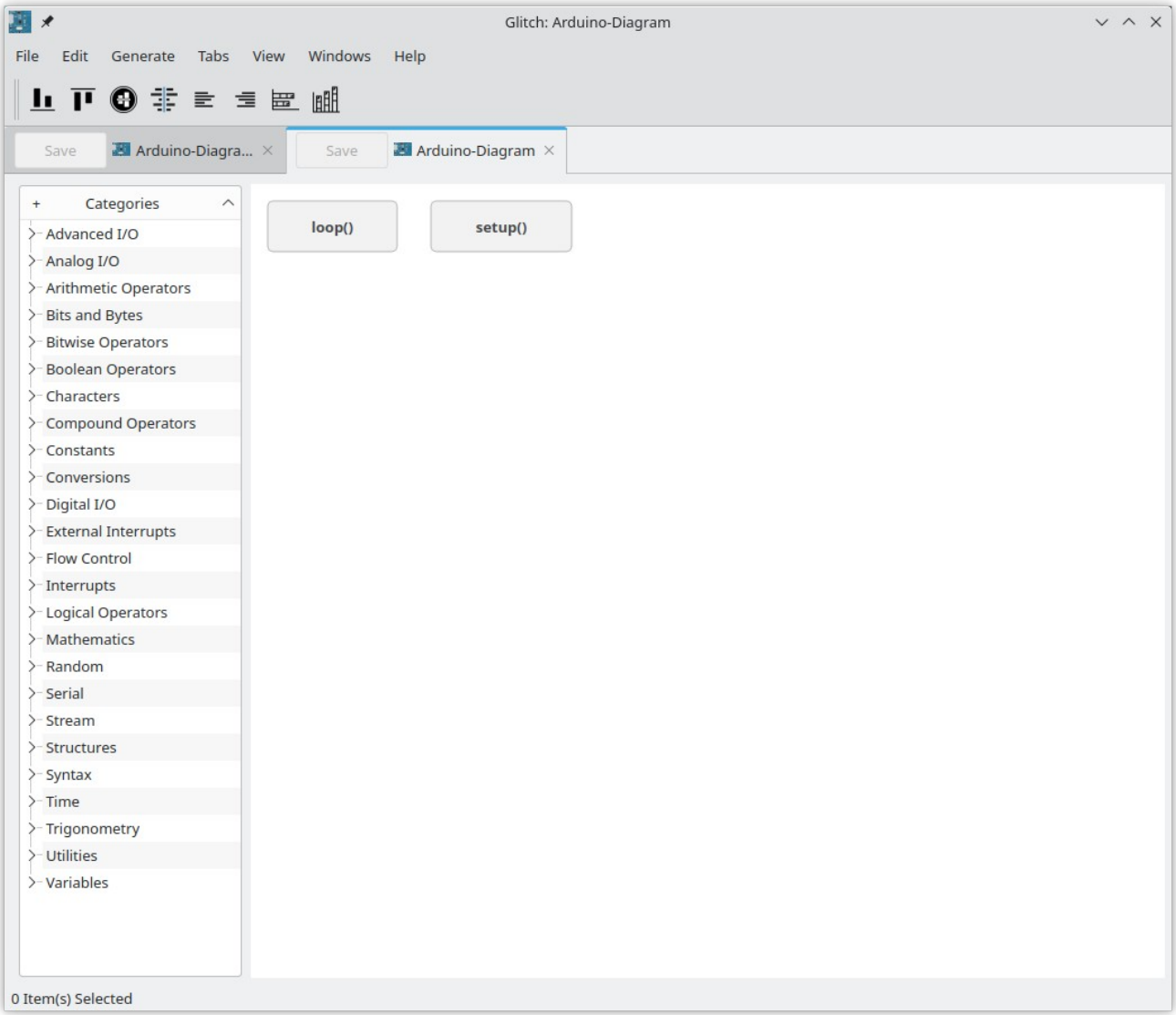
Glitch is a visual compiler. The software interprets block diagrams (blueprints) and translates the diagrams into Arduino intermediate source. Glitch is extensible with other frameworks, for example, the C programming language.

Glitch should be functional on any operating system where Qt 5 LTS or Qt 6 LTS is supported. Qt 5.5.1 is supported for PowerPC and other operating systems. Qt 4.8.x is considered obsolete and is not supported.

The source of Glitch is available at https://github.com/textbrowser/glitch.

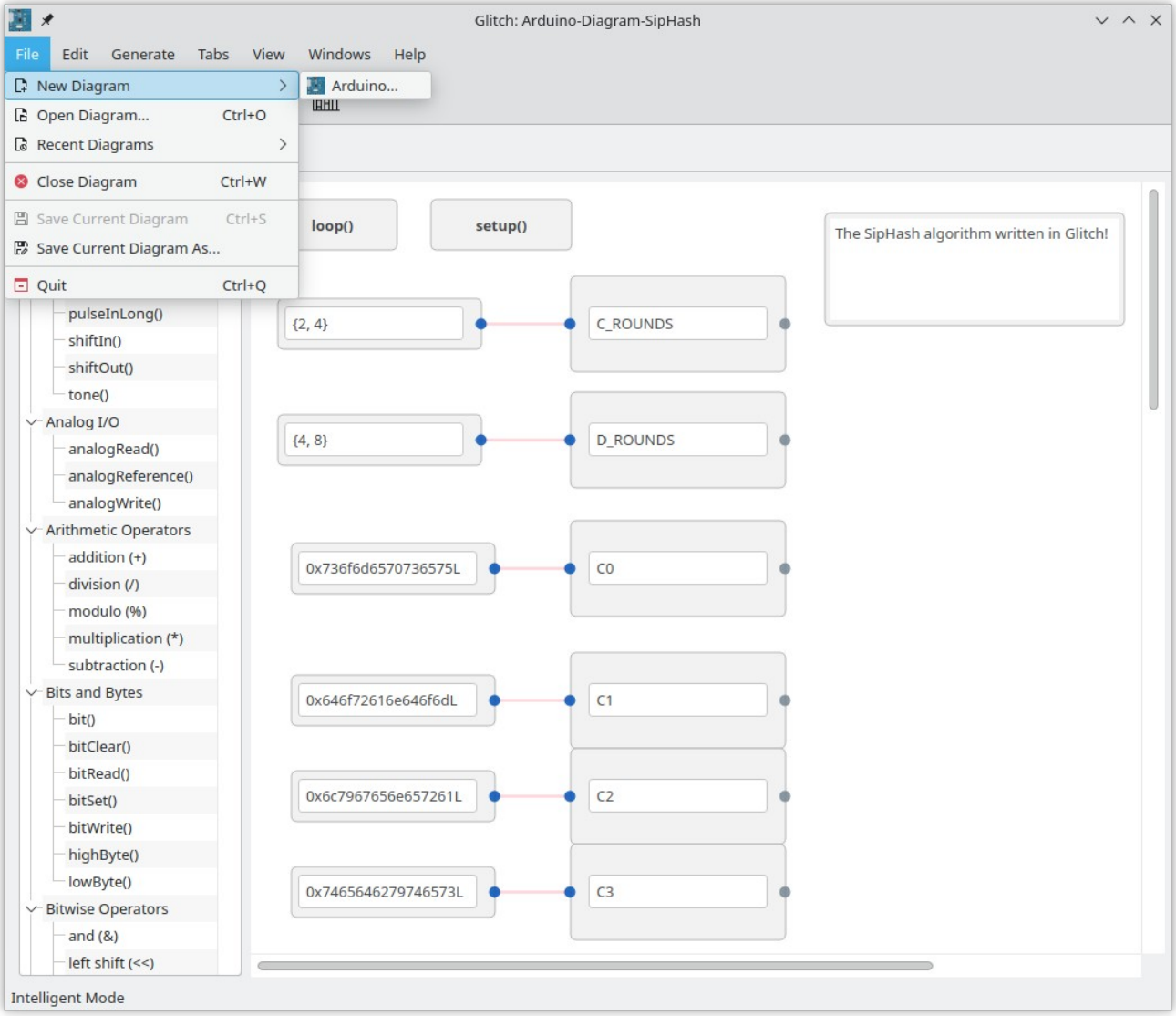
Arduino Special Functions

The Arduino programming interface requires two special functions, loop() and setup(). The functions are automatically assigned to an Arduino diagram after the diagram is created.



Creating New Diagrams

New diagrams may be created via File → New Diagram → Arduino. After a diagram is initialized, editing may begin. To add an object, drag-and-drop it from the left-hand Categories tree widget. Objects may also be added from the copy buffer via a paste event.



Document Changes

Version 1.0

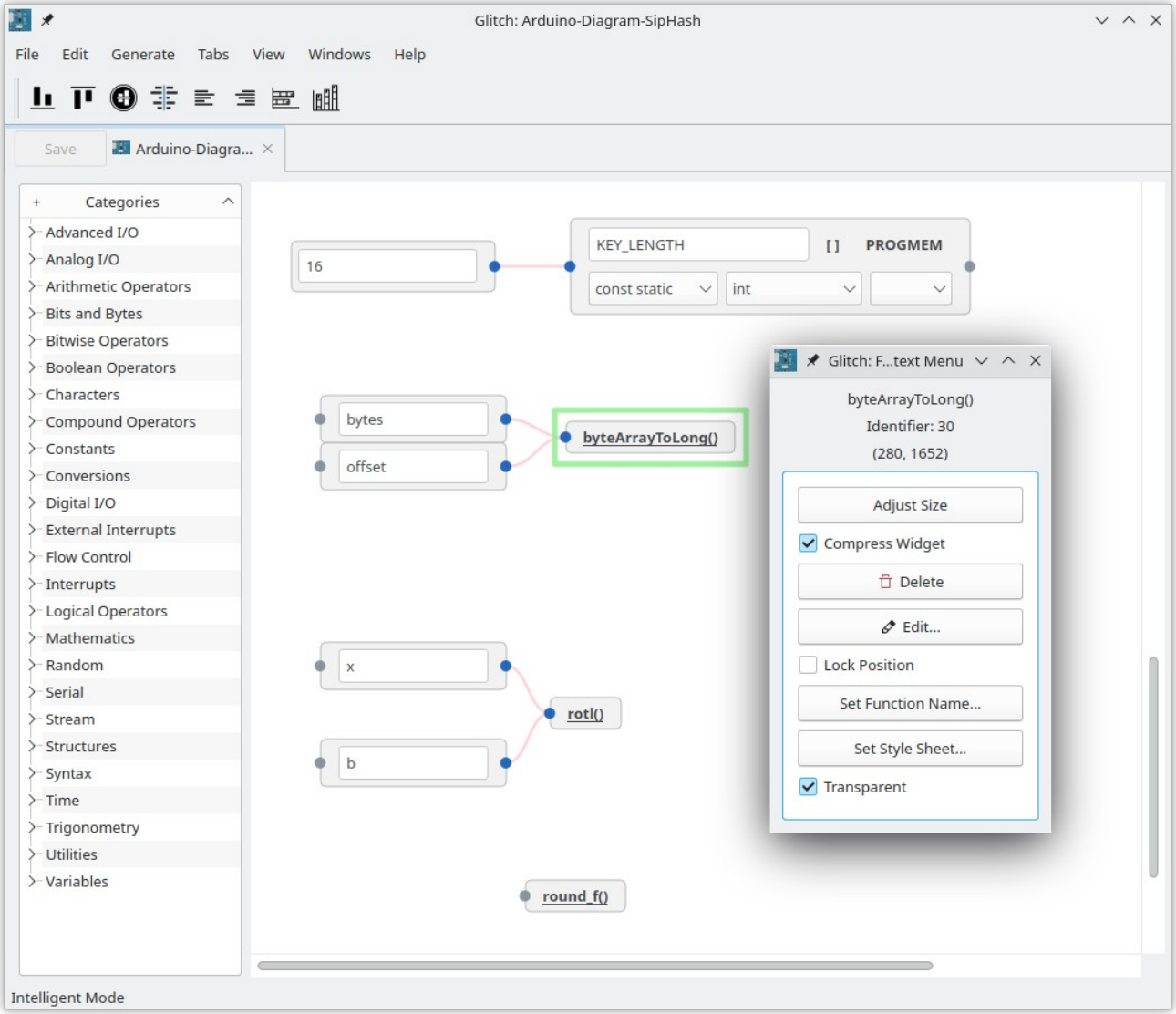
- Initial version.

Version 1.1

- Grammar corrections.

Editing Diagrams

Existing objects may be edited via direct interactions. A context menu is also available for each object. Copying and pasting objects are also allowed. A single redo / undo stack provides rich redo / undo behavior.



Operating Systems

Glitch supports Android, FreeBSD, Linux, Mac OS X, OS/2, OpenBSD, and Windows. Generally, the application should be compatible with any operating system where a modern Qt is supported. The software has also been tested on a variety of architectures, including AMD, ARM, PowerPC, and UltraSparc.

SQL Injections

All Glitch SQL queries are parameterized. Prepared SQL statements are resilient against SQL injections.

Wiring Objects

Wired objects designate a graphical relationship between the wired objects. For example, a variable object wired to a function object suggests one of two things. For a main-diagram function, a wired variable connected to the function imply that the function has one parameter. For a non-main-diagram function, a wired variable (or another object type) suggests that the function be issued with the wired input.


```
long rotl(long x, long b)
{
 return(((((x) << (b))) | (((x) >> (((64L) - (b)))))));
}
```

Index