

# KIELER SCCharts Release 0.11.0

## KIELER SCCharts Release 0.11.0

[Official Project Website](#)

- Built on Eclipse 4.5 "Mars"

We are happy to provide the eleventh release of the **Kiel Integrated Environment for Layout Eclipse Rich Client SCCharts Editor and Compiler!** It is a framework for enhanced user interaction in graphical modeling basing on the Eclipse platform.

- [Installation](#)
- [Release Notes](#)
  - [New Features included in 0.11.0](#)
  - [Quickstart](#)
  - [Start with the ABO \("Hello World"\) Example](#)
- [Known Problems and Limitations](#)
- [Bug Reports, Comments](#)

## Installation

You can either download the Rich Client Application (RCA) which is a self-contained application bundled with everything you need to run KIELER SCCharts, or you can install the single KIELER SCCharts features via an update site on top of your own Eclipse installation.

- See the [KIELER Downloads](#) site for download details.
- You'll require a Java Runtime Environment  $\geq$  version 1.5.
- Nice graph layouts can be obtained by [GraphViz](#). KIELER SCCharts makes use of a GraphViz installation on your machine, so you probably want to install it.

## Release Notes

The 0.11.0 release comes with the following changes.

### New Features included in 0.11.0

- Version 2 of the [Kiel Compiler \(KiCo\)](#)
  - Easier transformation handling
  - Better compiler selection view
  - [Transformation Tracing](#)
  - Support for the new KlighD view and features
- [KIELER Project Management](#)
  - Create models for specific target platforms easily!
- [Interactive Timing Analysis](#)
- [SCL & SCEst](#)
  - Create your own SCGs with SCL
  - Compile SCEst
- Incremental Hardware Synthesis
  - Generate your own circuits!
- Improvements on the compiler performance and code generation
  - including code for Arduino

## Quickstart

### Start with the ABO ("Hello World") Example

The 0.11.0 release provides examples you can add and play around with. You can start with an example by doing one of the following things:

- Create a new project and name it as you like.
- Create a new \*.sct file in the project (create a file and give it the file extension \*.sct)
- Open the file (it should open in the SCCharts editor)
- Start with the SCT language using the following ABO example:

## abo.sct

```
@VHLayout
scchart ABO {
  input output bool A;
  input output bool B;
  output bool O1;
  output bool O2;
  region:

  initial state Init
  --> WaitAB immediate with / O1 = false; O2 = false;
  state WaitAB {
    region HandleA:
    initial state WaitA
    --> DoneA immediate with A / B = true; O1 = true;
    final state DoneA;
    region HandleB:
    initial state WaitB
    --> DoneB with B / O1 = true;
    final state DoneB;
  }
  --> GotAB with / O1 = false; O2 = true;
  state GotAB;
}
```

## Known Problems and Limitations

### Bug Reports, Comments

We're working hard to make the graphical modeling user experience as convenient as possible. However, bugs can still remain in the code and some things might not be as you would expect them. Please don't hesitate to send in bug reports or give other comments like feature requests.

Send bug reports to [kieler@...](mailto:kieler@...), please. For news or general questions subscribe to the [rt-kieler mailing list](#).