

# AN2121 APPLICATION NOTE

### Realizer for ST6 and ST7 Differences between ST-Realizer II and Realizer Silver

#### INTRODUCTION

**Realizer** is an easy-to-use, Windows<sup>®</sup>-based environment that allows users with various levels of programming expertise to design embedded applications for ST6 and ST7 microcontrollers using graphical symbols that represent programming functions instead of coding application functions in C or assembler programming language.

Realizer was developed by Actum Solutions and is available in several versions, including:

- ST-Realizer II, a limited version that is only available from STMicroelectronics
- Realizer Bronze, a demonstration version available from Actum (www.actum.com)
- Realizer Silver, the full version available from Actum

This document describes the differences between the **ST-Realizer II** and **Realizer Silver** versions. Further, detailed information about ST-Realizer II can be found in the *ST-Realizer II User Manual*, which is available for free download at *www.st.com/mcu*.

# **1** Realizer feature comparison

The following sections list all the features that are available in the Realizer Silver version, which are *not available* or *are limited* in ST-Realizer II.

#### 1.1 Multi Place

Components can be placed more than once in the schematic after selecting the symbol.

#### 1.2 Multi Connect

When connecting the input and output symbols to device pins, you can select the I/O in a combo box. This allows you to connect all I/Os without double clicking on each I/O symbol.

#### 1.3 Store String

Text strings entered in a text box will be stored and used when a new label is placed, so that you don't have to type the string a second time.

#### 1.4 Scroll Wire

When you connect symbols to each other, the screen scrolls automatically as the mouse pointer exits the screen (auto-pan).

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#### 1.5 No Borders

In Realizer Silver, this feature allows you to draw schematics that go outside the page borders. In ST-Realizer II, schematics are limited to the page.

#### 1.6 Status Box

Realizer Silver provides more information when analyzing projects. ST7-Realizer II reports I/Os, variables by type and required memory space.

#### 1.7 Actum Menu

Some functions have been added to the menu to make the Realizer Silver user interface more intuitive, such as:

- **F5** refresh screen,
- CTRL +drag to move components horizontally or vertically,
- Arrow keys to move components using the keyboard. Use the CTRL button to increase the steps when moving.

#### 1.8 Realizer Help

The *Realizer User Guide* is provided with the installation of Realizer Silver.

#### 1.9 Global Labels

Labels can be applied to the entire design. With ST-Realizer II, labels are only applied to the sheet upon which they were placed.

#### 1.10 Controlled

This feature allows you to control the execution of the different sub-schematics. If sub-schematics are not executed, the loop time is reduced.

### 1.11 Symbol Code Support

This allows you to create a symbol and write the assembly code for it. The assembly code is stored in the symbol itself instead of in an include file. In ST-Realizer II, it is necessary to edit the symbol code in the include file.

#### 1.12 Active Low Outputs

Outputs can be initialized high at startup. The outputs of ST-Realizer II are set high in the first loop, whereas Realizer Silver allows you to choose to set the outputs low or high at startup.

#### 1.13 LCD Control

Realizer Silver allows you to use the LCD peripheral on the ST6240 and ST6280.



### 1.14 Minimize ADC Noise

Realizer Silver provides a "Minimize ADC Noise" feature for C devices in the ST62xx family.

#### 1.15 MCC Peripheral

Realizer Silver for ST72xx allows you to use the MCC peripheral as Timer Tick instead of Timer A. The other timers will remain free to use.

# 2 PRODUCT SUPPORT

This document outlines the differences between the ST-Realizer II and Realizer Silver versions. At our Internet site **www.st.com/mcu**, you will find complete documentation, software downloads and user discussion groups to help you answer questions and stay up to date with our latest product developments.

This site also provides up to date hardware documentation and ordering information for the complete range of supported debugging hardware and programmers. It also features a listing of spare parts to help you identify connection kits, sockets and adapters that you may need to develop your application hardware.

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