

## Code Export from SmartRF® Studio

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### Keywords

- *SmartRF® Studio*
- *Code Export*
- *Register View*

### 1 Introduction

SmartRF® Studio provides a tool to export code. The function can be found under the file menu: Export <chip> code. The

exported code can be copied and pasted into C-code as a structure, or the format can be modified to fit any custom format

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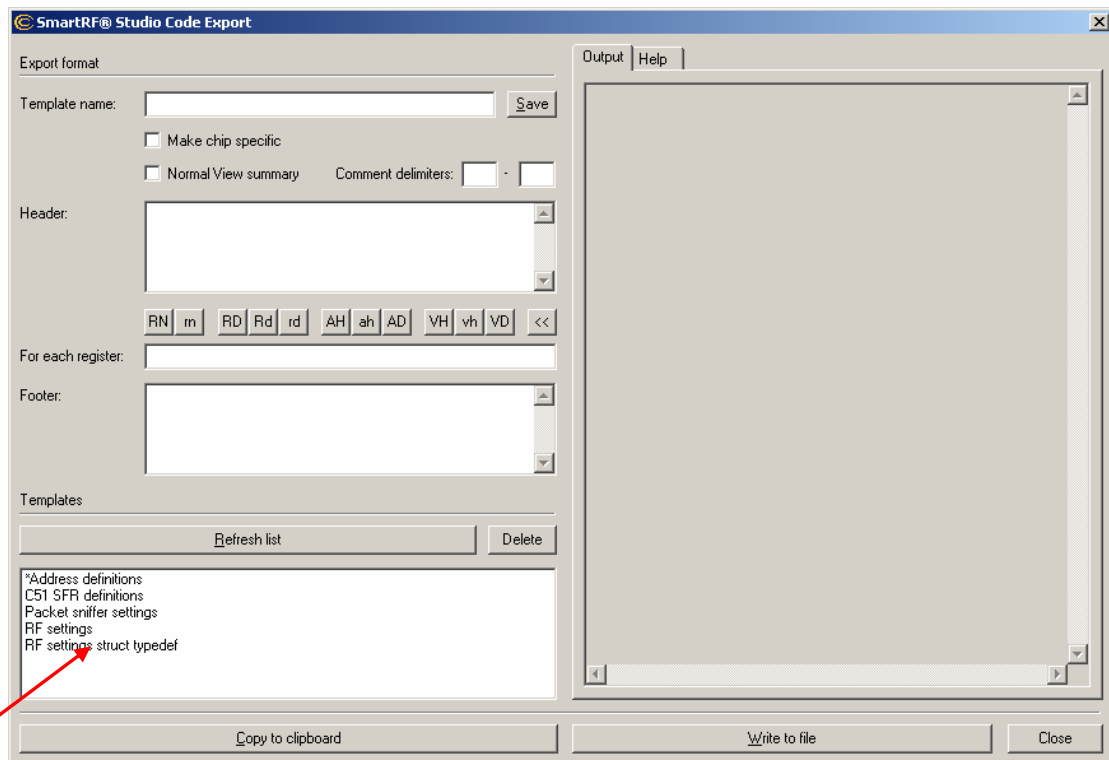
## 2 Export Code

### 2.1 Select Required Operational Mode

Select preferred settings and the required mode in Normal View. SmartRF® Studio will automatically set all registers to the correct value. Then the “Export code” function can be selected from the file menu.

### 2.2 Use Pre-defined Template

When “Export <chip> code...” from the file menu is selected, the following dialog will appear:



**Figure 1. Code Export Dialog**

By default, a list of templates will be shown at the bottom of the dialog. These are templates with a pre-defined structure of the code to be exported. By double clicking on a template, the output will be shown in the “Output” tab to the right in the dialog (see Figure 2).

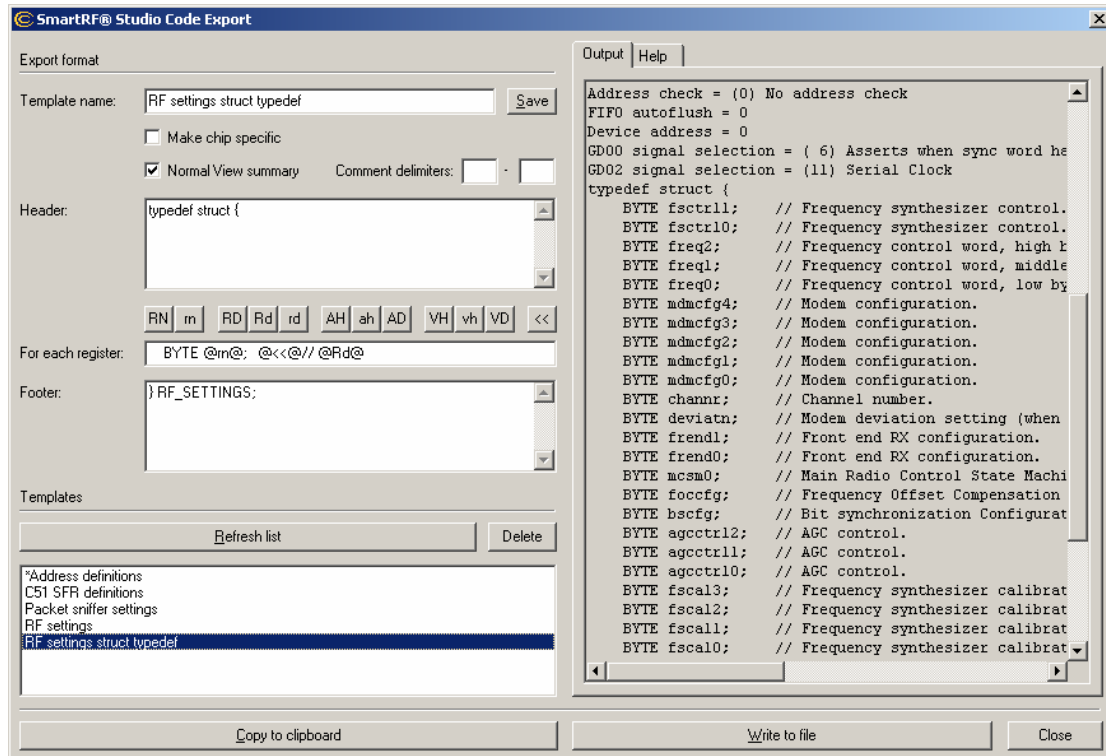


Figure 2. Output Tab

## 2.3 Defining a New Template

A new template can be defined as required by the user. There are three different parts of the template that can be defined; Header, registers and footer.

### 2.3.1 Header

The header can be any text, but typically it will be the beginning of a block definition.

### 2.3.2 Registers

For each register, the output can be defined by any text in combination with format tags. The available tags are described in the "help tab" at the right of the dialog.

The following set of format tags can be used in the "For each register" field:

#### Register Name:

**@RN@** Upper-case ("MDMCTRL0")  
**@rn@** Lower-case ("mdmctrl0")

#### Register Description:

**@Rd@** Original text ("Packet status")  
**@RD@** Upper-case ("PACKET STATUS")  
**@rd@** Lower-case ("packet status")

#### Register Address:

**@AH@** Hexadecimal, upper-case ("12", "ABCD")  
**@ah@** Hexadecimal, lower-case ("12", "abcd")  
**@AD@** Decimal ("2", "139")

Register Value:

**@VH@** Hexadecimal, upper-case ("A4", "BEEF")  
**@vh@** Hexadecimal, lower-case ("a4", "beef")  
**@VD@** Decimal ("6", "255")

Output Format:

**@<<@** Align horizontally

Last Line:

**@c@** Include the character "c" on all lines except the last one

**2.3.3 Footer**

The footer can be any text, but typically it will be the end of a block definition.

The templates are saved in separate files in the SmartRF<sup>®</sup> Studio installation folder. The files can be copied individually from one computer to another. The file name is composed of the template name entered in the template name field and the file extension ".srfsexp" + the "chip type number (e.g. "2430" for CC2430) if "Make chip specific" is checked.

Chip specific templates are marked with a star (\*) in the template list.

**2.4 Values from Register View**

Note that the values from register view will not be taken into account when using the code export functionality. To use custom register values, the exported code must be manually updated.

**2.5 Save Output**

The generated output can be written to file or copied to the clipboard.

### 3 General Information

#### 3.1 Document History

Revision	Date	Description/Changes
SWRA106	2006.07.06	Initial release.

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