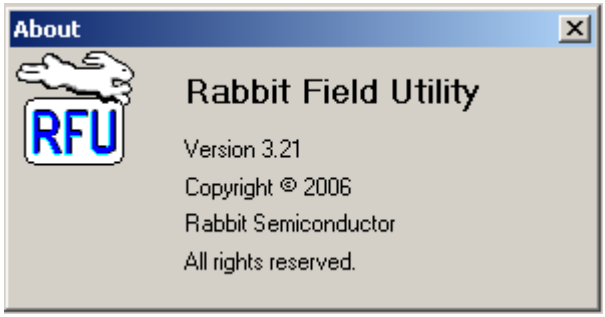
# Rabbit Field Utility

The Rabbit Field Utility (RFU) will load a binary file created with Dynamic C to a Rabbit-based board. The RFU can be used to load a binary file without Dynamic C present on the host computer, and without recompiling the program each time it is loaded to a controller.

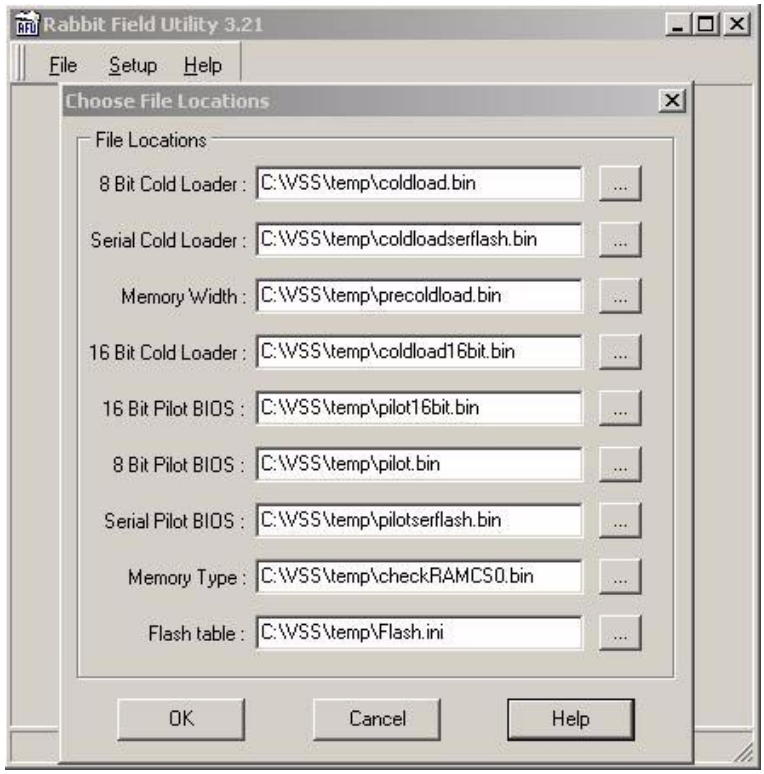
The Dynamic C installation created a desktop icon for the RFU. The executable file, `rfu.exe`, can be found in the subdirectory named "Utilities" where Dynamic C was installed. Complete instructions are available by clicking on the Help button within the utility. The Help document details setup information, the file menu options and BIOS requirements.




The RFU executable that comes with the Dynamic C distribution is branded as a  product, as seen in the "About" screenshot shown here. With the purchase of the source code you can brand the RFU or customize its functionality to suit your needs.

The RFU enables those without Dynamic C to update their Rabbit-based board with a few files installed on the computer and the appropriate connection to the target board.

The necessary files are included with Dynamic C. They are: the executable (Rfu.exe), the cold loader, the pilot BIOS, and a couple of files used to determine information about the memory device being used. The default files used for the cold loader, etc., can be seen by selecting "Choose File Locations" from the Setup menu.




Rfu.exe and its ancillary files are freely distributable.

The RFU communicates with the target using either a serial or a TCP/IP connection. The serial connection requires a programming cable. The TCP/IP connection requires either a RabbitLink board or a RabbitSys-enabled board.

## Command Line RFU

There is also a command line version of the RFU. On the command line specify:

```
clRFU SourceFilePathName [options]
```

where `SourceFilePathName` is the path name of the `.bin` file to load to the connected target. The options are as follows:

### -s port:baudrate

**Description:** Select the comm port and baud rate for the serial connection.

**Default:** COM1 and 115,200 bps

**RFU GUI Equivalent:** From the Setup | Communications dialog box, choose values from the Baud Rate and Comm Port drop-down menus.

**Example:** `clRFU myProgram.bin -s 2:115200`

### -t ipAddress:tcpPort

**Description:** Select the IP address and port.

**Default:** Serial Connection

**RFU GUI Equivalent:** From the Setup | Communications dialog box, click on "Use TCP/IP Connection," then type in the IP address and port for the controller that is receiving the `.bin` file.

**Example:** `clRFU myProgram.bin -t 10.10.1.100:4244`

### -pw

**Description:** Passphrase for TCP/IP loader when using a RabbitLink.

**Default:** RabbitLink always prompts for a passphrase. Press "Enter" if no passphrase has been set.

**RFU GUI Equivalent:** None.

**Example:** `clRFU -pw mypassphrase`

### -v

**Description:** Causes the RFU version number and additional status information to be displayed.

**Default:** Only error messages are displayed.

**RFU GUI Equivalent:** Status information is displayed by default and there is no option to turn it off.

**Example:**
```
clRFU myProgram.bin -v
```

### -cl ColdLoaderPathName

**Description:** Select a new initial loader.

**Default:** `\bios\coldload.bin`

**RFU GUI Equivalent:** From the Setup | Boot Strap Loaders dialog box, type in a pathname or click on the ellipses radio button to browse for a file.

**Example:**
```
clRFU myProgram.bin -cl myInitialLoader.bin
```

### -pb PilotBiosPathName

**Description:** Select a new secondary loader.

**Default:** `\bios\pilot.bin`

**RFU GUI Equivalent:** From the Setup | Boot Strap Loaders dialog box, type in a pathname or click on the ellipses radio button to browse for a file.

**Example:**
```
clRFU myProgram.bin -pb mySecondaryLoader.bin
```

### -fi Flash.ini PathName

**Description:** Select a new file that Dynamic C will use to externally define flash.

**Default:** `flash.ini`

**RFU GUI Equivalent:** From the “Choose File Locations...” dialog box, visible by selecting Setup | File Locations, type in a pathname or click on the ellipses radio button to browse for a file.

**Example:**
```
clRFU myProgram.bin -fi myflash.ini
```

### -vp+

**Description:** Verify the presence of the processor by using the DSR line of the PC serial connection.

**Default:** The processor is verified.

**RFU GUI Equivalent:** From the "Communications Options" dialog box, visible by selecting Setup | Communications, check the "Enable Processor Detection" option.

**Example:**
```
clRFU myProgram.bin -vp+
```

### -vp-

**Description:** Do not verify the presence of the processor.

**Default:** The processor is verified.

**RFU GUI Equivalent:** From the "Communications Options" dialog box, visible by selecting Setup | Communications, uncheck the "Enable Processor Detection" option.

**Example:**
```
clRFU myProgram.bin -vp-
```

### -usb+

**Description:** Enable use of USB to serial converter.

**Default:** The use of the USB to serial converter is disabled.

**RFU GUI Equivalent:** From the "Communications Options" dialog box, visible by selecting Setup | Communications, check the "Use USB to Serial Converter" option.

**Example:**
```
clRFU myProgram.bin -usb+
```

### -usb-

**Description:** Disable use of USB to serial converter.

**Default:** The use of the USB to serial converter is disabled.

**RFU GUI Equivalent:** From the "Communications Options" dialog box, visible by selecting Setup | Communications, uncheck the "Use USB to Serial Converter" option.

**Example:**
```
clRFU myProgram.bin -usb-
```

### -d

**Description:** Run Ethernet discovery to select a RabbitLink on a local area network (LAN). Don't load the `.bin` file. This option is for information gathering and must appear by itself with no other options and no binary image file name.

**RFU GUI Equivalent:** From the Setup | Communications dialog box, click on the "Use TCP/IP Connection" radio button, then on the "Discover" button.

**Example:**

```
clRFU -d
```