



User Manual

Code Download tool for S75 applications

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Revision History

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1.00	7-Dec-06	NS	First issue of document.
1.01	23-Mar-06	MB	Updated the document to include S75CA and S75-0200
1.02	06-Jul-09	MB	Updated references to S75-200 and S75-JCA, added S75-Pro, added "eraseconfig"
1.03	24-Aug-09	MB	Added section to reset S75 to factory defaults, added ToC, changed document format, updated footer, added reference to Windows Vista

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Purpose

The purpose of this document is to describe the code download tool for updating the application code on the S75CA.

Scope

The information in this document applies to the following hardware and software.

- Hardware
 - o S75CA units built by Novra Technologies Inc.
 - o S75-JCA unit built by Novra Technologies Inc
 - o S75+ unit built by Novra Technologies Inc.
 - o S75-Pro unit build by Novra Technologies Inc.
- Software
 - o Code Download tool file name "S75_CodedownloadTool_V2R1.exe"

Note: All versions of S75 will herein be called S75.

Required Equipment

To perform the firmware upgrade on the S75 you need the following equipment.

- 1- PC running Windows 2000, Windows XP or Windows Vista.
- 2- Cross over cable to connect the S75 and the PC.
- 3- The software tool should be available on the PC along with the new firmware file.

Important Note on Firewall and network security software.

Please note that the code download tool uses the network features of the PC, firewall and network security software may block the operation of this application. It is strongly recommended that you disable any firewall or network security software before you run the code download tool.

Using the Code Download tool

The code download tool is a command line tool that supports a few commands (listed in Appendix A). You can use these commands to change the application code on the unit. Check the appendix for a list of commands.

Preparing the software

- Create a new directory for the code download tool, for example c:\Novra
- Copy the code download tool and the new firmware file in this directory.

Connecting the S75 and Starting the Application Update Mode.

- Connect the S75 to the PC using the cross over cable.
- Start the code download tool, by double clicking on the executable file, or from a command prompt.
- Power Cycle the S75.
- The code download tool should recognize the device and display the current information as shown in Fig. 1.
-

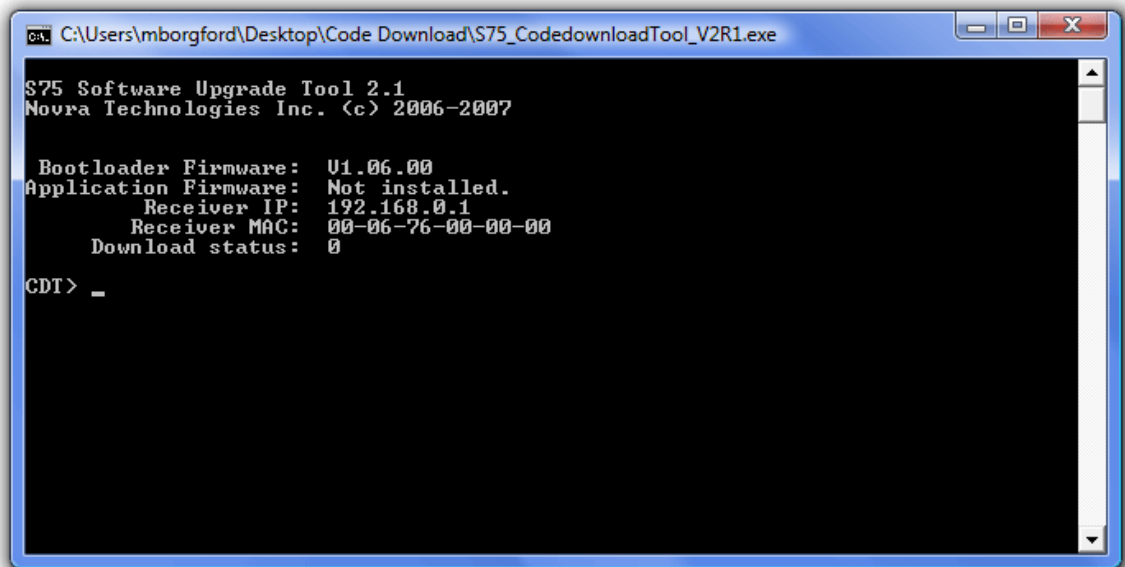
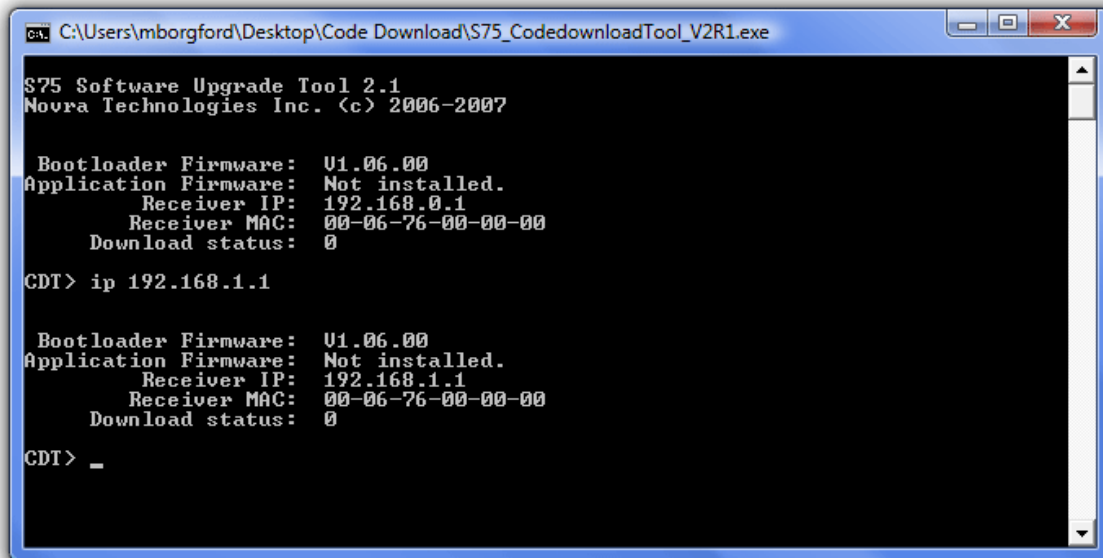


Figure 1 - Connecting to S75-JCA

Preparing for Code Download.

- Change the IP address of the S75 to a valid IP address that works with your PC (typically on the same subnet as your PC).
 - o Use the command “ip xx.xx.xx.xx” as shown in Fig. 2.



```
C:\Users\mborgford\Desktop\Code Download\S75_CodedownloadTool_V2R1.exe

S75 Software Upgrade Tool 2.1
Novra Technologies Inc. <c> 2006-2007

Bootloader Firmware:  U1.06.00
Application Firmware:  Not installed.
Receiver IP:          192.168.0.1
Receiver MAC:         00-06-76-00-00-00
Download status:      0

CDT> ip 192.168.1.1

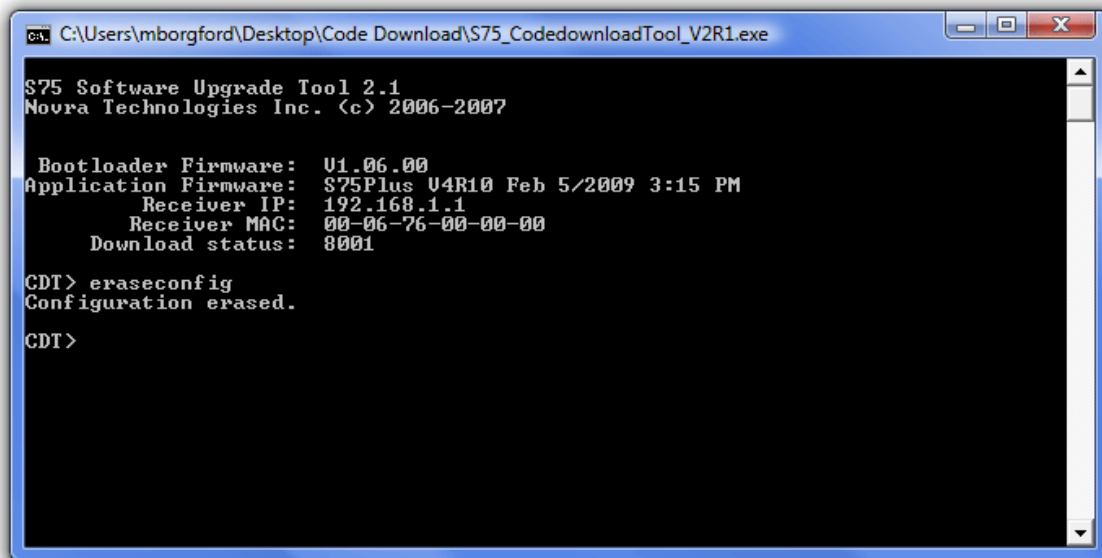
Bootloader Firmware:  U1.06.00
Application Firmware:  Not installed.
Receiver IP:          192.168.1.1
Receiver MAC:         00-06-76-00-00-00
Download status:      0

CDT> _
```

Figure 2 - Preparing for New application Code

Resetting S75 to Factory Defaults

- To change reset the S75 to factory defaults, including resetting the password to “Novra”, use the “eraseconfig” command as shown below in Fig 2
 - o Note: this command will erase you configuration. You may wish to save your configuration before performing this command.
 - o Note: If you are planning to upgrade or re-install the S75 firmware, then this step can be omitted.
 - o Note: Be careful NOT to use the “erase” command as this will erase the S75 application firmware.



```
C:\Users\mborgford\Desktop\Code Download\S75_CodedownloadTool_V2R1.exe

S75 Software Upgrade Tool 2.1
Novra Technologies Inc. (c) 2006-2007

Bootloader Firmware:  V1.06.00
Application Firmware:  S75Plus V4R10 Feb 5/2009 3:15 PM
      Receiver IP:    192.168.1.1
      Receiver MAC:   00-06-76-00-00-00
      Download status: 8001

CDT> eraseconfig
Configuration erased.

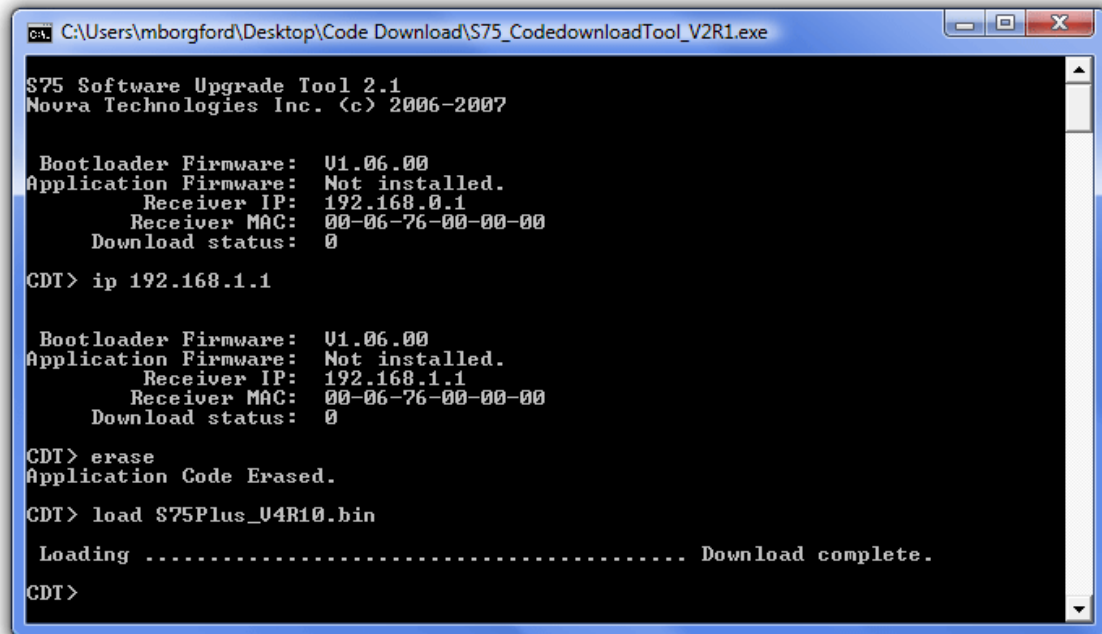
CDT>
```

Figure 3 – Erase the S75 Configuration Settings

Now, exit the Code Download application (by typing “exit”) and power cycle the S75.

Load the Code

- Erase the old code by using an erase command as shown in Fig. 4 below.
- Load the code using the Load command “load <filename>” as shown in Fig. 4.



```
C:\Users\mborgford\Desktop\Code Download\S75_CodedownloadTool_V2R1.exe

$75 Software Upgrade Tool 2.1
Novra Technologies Inc. (c) 2006-2007

Bootloader Firmware:  V1.06.00
Application Firmware:  Not installed.
Receiver IP:          192.168.0.1
Receiver MAC:         00-06-76-00-00-00
Download status:      0

CDT> ip 192.168.1.1

Bootloader Firmware:  V1.06.00
Application Firmware:  Not installed.
Receiver IP:          192.168.1.1
Receiver MAC:         00-06-76-00-00-00
Download status:      0

CDT> erase
Application Code Erased.

CDT> load S75Plus_V4R10.bin

Loading ..... Download complete.

CDT>
```

Figure 4 - Loading the file

Exit the Code Download application (by typing “exit”) and power cycle the receiver to run the new application code.

Getting Help.

You can get a list of the commands supported by the Code Download tool by typing “help”. Please see Appendix A for a list of the available commands.

Appendix A

Supported Commands

Command	Description
mac <MAC address>	Program S75 MAC address. This command is used only for manufacturing purposes and will not work on any units that already have a valid MAC address.
ip <IP address>	Change S75 IP address. Use this command to change the IP address of the receiver to an IP address that you can communicate with from your PC. This command is the only command that will work regardless of the original IP address of the receiver and the PC.
load <filename.bin>	Upgrade S75 application code to the new bon image.
erase	Erase the current S75 application code.
eraseconfig	Erse the current S75 configuration. Note: this will not erase the S75 application code
run	Run the application code. Note that you will need to power cycle the unit and restart the code download tool to re-connect to the S75 in update mode. It is recommended that you close the CDT first, and then power cycle the unit to run your application after an upgrade
status	Display the current status of the S75 application code.
exit	Exits the code download application, the S75 will be left in code update mode. To avoid that you should either run the code before you exit, or restart the unit after you exit.

The following windows command line utilities can be called from the code download utility.

ipconfig - Display IP addresses assigned to LAN port
arp - Display IP addresses in use

Please note that you can't pass arguments to these command line tools from the code download tool prompt. For Example ipconfig /all is not supported.