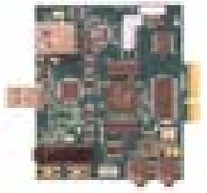
TMS320C5502 eZdsp Quick Start Guide


C5502 eZdsp


USB Cable


DVD


Quick Start Guide

1.0 SYSTEM REQUIREMENTS

To operate the Spectrum Digital XDS100 JTAG Emulator with your system it needs to meet the following requirements:

- 2 GB of free hard disk space
- Microsoft Windows™ XP/Vista/Win 7
- Min 1 GB ram, 2 GB recommended
- Min 1.5 GHz., dual core recommended
- Color Display
- Internet access
- USB port
- DVD reader

2.0 WHAT'S INCLUDED

The TMS320C5502 eZdsp kit includes:

- TMS320C5502 eZdsp
- USB extension cable
- TMS320C5502 eZdsp DVD with Code Composer Studio (CCS)
- This Quick Start Guide

3.0 C5502 eZdsp Installation

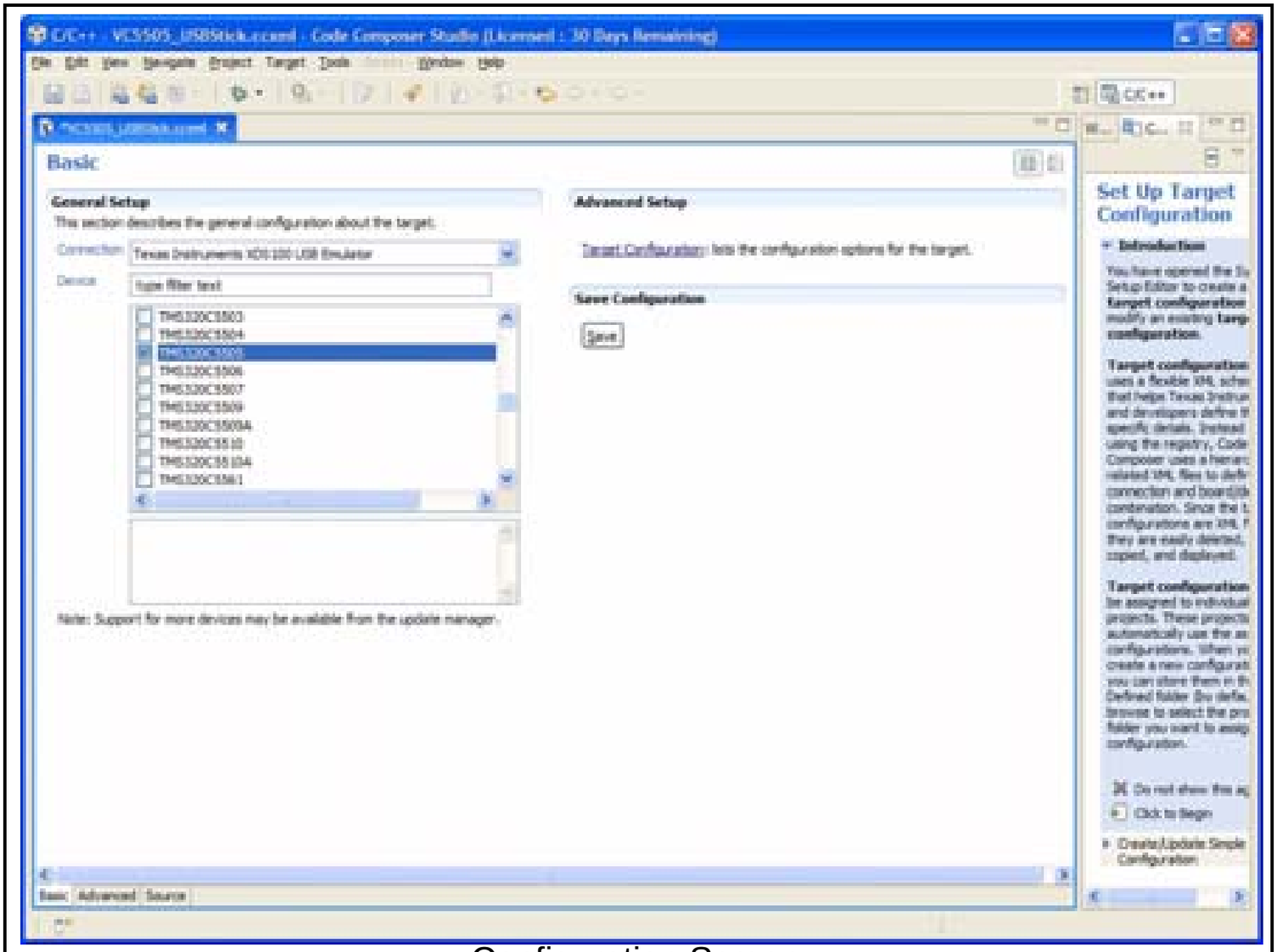
Note: *Install **ALL** software prior to connecting the C5502 eZdsp to the computer !*
Note: *The user **MUST** be logged onto windows with "Administrative Rights" and any anti-virus software must be disabled during installations. Please contact your system administrator if help is needed in this area.*

1. If you wish to install the eZdsp5502 target content into your existing CCS then install then you can skip to step 7. For a new complete install continue with step 2.
2. Insert the Code Composer Studio (CCS) v4 DVD into the computer's DVD drive and wait for the auto-run application to start. If the auto-run application does not start then launch the install via the "Run" icon on the "Start" button.The user prompts will step the user through the rest of the CCS installation. This installation may take several minutes. The installation will place a CCS icon on your desktop.
3. At this time plug the C5502 eZdsp J1 connector into a USB port (directly or via the USB extension cable) on your laptop or PC. Windows will recognize the new hardware connection and complete the hardware installation automatically.
4. Launch CCS v4 from the shortcut icon on the desktop.
5. A prompt will appear asking for a workspace location. Each time CCS starts up the main workspace is the main working folder for CCS. The default location will be (on Windows XP) "C:\Documents and Settings\<user name>\My Documents\workspace". To have CCS automatically default to the specified workspace location, select the "Use this as the default and do not ask again" option.
6. Create a user license. After launching CCS, the user may be prompted to create a user license to activate the CCS software. Select the "Activate a License" option. Then click "Use Free Limited License". This will re-direct you to the Texas Instruments website to complete the License creation process. Alternatively, the "Activate a License" step may be bypassed temporarily and completed at a later date by clicking "Evaluate Code Composer Studio for 30 days".
7. If you did NOT install the full CCS and just want the eZdsp5502 target content then it can be installed from the DVD. Run <CDROM>\install_images\emulation\sd_targets\SetupEZDSP5502.exe, and follow the setup instructions. When the "Location to Save Files" dialog appears change to your top level CCSv4 directory or a location of your choice. Typically CCSv4 is installed in "C\Program files\Texas Instruments\ccsv4".

License Screen

4.0 CCS Configuration Instructions

1. Launch CCS v4 from the shortcut on the desktop. (This was created when CCS v4 was installed).
2. The CCS v4 window will appear. Click the “Target” menu, then select “New Target Configuration File”.
3. The “New Target Configuration” window will appear. Enter a file name that describes the emulator connection and/or Texas Instruments device being used and click “Finish”. For example: “C5502_eZdsp”.
4. The “Basic” configuration setup window will open in the CCS v4. Select “Texas Instruments XDS100v2 USB Emulator” from the “Connection” menu. Type “5502” in the “Device” field and select “eZdsp5502”, from the list.



Configuration Screen

5. Click the “Save” button to save the configuration.
6. Click the “View” menu and select “Target Configurations” to expose the configuration(s) that have been built or imported. A new tab labeled “Target Configurations” will become available in the CCS window.
7. Expand the “User Defined” folder. Right-click on the new configuration that has been created and click “Launch Selected Configuration”.
8. Click “View->Debug” then click “Target->Connect Target”. CCS will attempt to connect to the C5502 eZdsp and run the GEL file. Once the connection is successful and the GEL file has finished, the console window will print a message stating “Target Connection Complete”.

5.0 Running the C5502 eZdsp LED Blink Demonstration

1. The C5502 eZdsp must be connected in CCS before proceeding. If the board is not connected, please refer to section 4.0 of this guide.
2. Click “File->Import”.
3. When the new window appears, expand “CCS” and select “Existing CCS/CCE Eclipse Project”. Click “Next”.
4. Select “Select Root Directory” and click the “Browse” button. Browse to directory path “<Install_Dir>\ccsv4\emulation\boards\ezdsp5502_v1\tests\led”.
   The default <Install_Dir> is “C:\Program Files\Texas Instruments”
5. Highlight the “LED” folder and click “OK”. Then click “finish”
6. Click “View->C/C++Projects”. A new tab will appear in the CCS v4 window and there should be a LED project visible.
7. Click “Project->Build Active Project”.
8. When the build is complete, a message will print in the Console Window.
9. Click “Target->Debug Active Project”
10. Click “Target->Run”. The C5502 eZdsp LEDs should now blink.

5.1 Boot Demo Documentation

The factory demo that blinks the LEDs and plays an audio tone when power is first applied to the eZdsp C5502 is documented here:
<Install_Dir>\ccsv4\emulation\boards\ezdsp5502_v1\demo_boot\ezdsp_demo\
Demo_guide.txt

6.0 Running the C5502 eZdsp Ethernet Demonstration

The C5502 eZdsp Ethernet demo uses a TCP/IP stack written by D.SignT. It can be found in the following directory:

<Install_Dir>\emulation\boards\ezdsp5502_v1\demo_enet

Instructions for running the demo and more demonstration about the TCP/IP stack can be found in the PDF file “demo5502.pdf” found in that directory.

7.0 SUPPORT RESOURCES

1. For additional information regarding the TMS320C5502 family of DSPs please refer to the following page on the TI web site:
   http://tiexpressdsp.com/index.php/C5000
2. If you have problems or need additional information regarding the embedded emulation please refer to the XDS100 USB wiki on the TI web site. The URL for this site is: **http://tiexpressdsp.com/index.php?title=XDS100**
3. Code Composer Studio support is available via a forum at:
   http://community.ti.com/forums/138.aspx
4. More information about other Spectrum Digital emulators can be found at:
   www.spectrumdigital.com
5. Additional development support is available via the online community:
   www.ti.com/ezdsp5000

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