LAB 3

MCF5441X
Linux®—Web server
using Linux OS

freescale
semiconductor

Get to know the TWR-MCF5441x

Primary Connector

RS232 Header (UART0)

RCON Boot Setting Switches

RS232 Header (UART4)

Boot Setting Switches

Mini-B USB Connector (OSBDM)

MCF5441X MPU

Potentiometer

LEDs

Switches

Interrupt Push Buttons

Reset Button

26-pin BDM

Secondary Connector

TWR-MCF5441X-KIT
Freescale Tower System

The TWR-MCF5441X module is part of the Freescale Tower System, a modular development platform that enables rapid prototyping and tool re-use through reconfigurable hardware. Take your design to the next level and begin constructing your Tower System today.

LAB 3

Linux—Web Server Using Linux OS

This document explains the out-of-box demo of the Freescale TWR-MCF55441X system. The TWR-MCF5441X system is a Freescale Tower-compatible system based on the MCF5441X ColdFire MCU. This document presumes that the reader has reviewed the Quick Start Guide and followed the steps to setup the hardware system.

How to start Linux

The TWR-MCF5441X module will start the Linux demo when the user powers up the Tower System. The U-boot loader will automatically count down from 5 to bring up the Linux Kernel. If any key is pressed during the countdown, it will stop and return to U-boot prompt. Enter the following command on the U-boot command line to start the Linux kernel.

U-boot command: "-> run linuxjffsboot"

How to run a Web page from TWR-MCF5441X Linux target

There is a simple example Web page installed in the system. Once you have opened your preferred browser, type the target IP address of TWR-MCF5441X into the URL line to display the pre-installed example Web page.

URL: http://<target IP address>

Replace <target IP address> with the IP address assigned to the TWR-MCF5441X

Use the following command to display the IP address of the TWR-MCF5441X:
ifconfig

Default Example Web Page

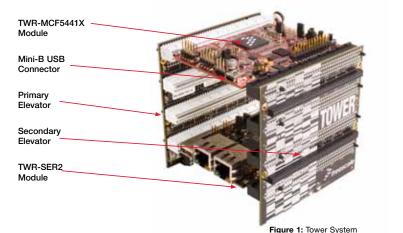## How to copy the Web page to TWR-MCF5441X Linux target

Option 1: TFTP

1. Copy the modified html file to TFTP server from Host PC folder.
2. In the Linux target, change directory to:
   # cd /dev/shm
3. Download the new Web page from TFTP server.
   # tftp –r index.html –g <tftp server IP address>
4. Copy the new Web page file to Linux Target Web folder.
   # cp index.html /var/www/html/index.html
5. Refresh the Web browser from the Host PC. The new Web page will be loaded and displayed.

Option 2: USB

1. Copy modified "index.html" to USB stick.
2. Insert the USB stick into the high-speed mini-AB dual-role USB port
3. Type the following commands to enable the USB port:
   # modprobe fsl_usb2_otg
   # modprobe ehci-hcd
4. Browse to the location of the new index. html file on the USB stick
   # cd /mnt/sda1/
5. Copy the new Web page to the Linux Target Web folder
   # cp index.html /var/www/html/index/html
6. Refresh the Web browser from the Host PC. The new Web page will be loaded and displayed.

About the Tower System

TWR-MCF5441X
Module

Mini-B USB
Connector

Primary
Elevator

Secondary
Elevator

TWR-SER2
Module

Figure 1: Tower System

Learn more at freescale.com/tower.

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