

# System Requirements for Demo Server Usage

**Date:** 01/22/2007

**Summary:** This document describes the system requirements for using the SYSGO demo server.

## 1 Introduction

To access the SYSGO demo server, the connection could be established either using Web-Browser with Java or VNC remote desktop viewer. Using one of the alternatives, you're able to get remote access to a fully installed cross development workstation.

## 2 Common requirements

- PC with internet access
- PDF viewer
- (optional) VNC viewer
- (optional) Java in Browser

## 3 Connecting to Demoserver

We provide the following connection types:

- Browser: <http://demo.elinos.com:5800> using insecure http connection
- Browser: <https://demo.elinos.com> using secure http connection
- VNC: demo.elinos.com Port 5900

## 4 Getting started

When using the Browser-Variant, simply enter the URL and press Enter. The VNC connection is established this way:

- Start the previously installed VNC viewer
- Enter "demo.elinos.com" in the "Server" input field
- Select "let Server choose (Default)" from the "Encryption" list
- Press "ok"

**The required password is provided by your Sales-Representative.**  
(Please refer to <http://demo.elinos.com> for password details.)

## 5 VNC installation on Windows PC

- Open a web browser (e. g. Firefox/Internet-Explorer)
- Connect to URL: <http://www.realvnc.com/>
- Choose on the left side "VNC Download it now"
- Choose the button "Download & Try" by "Personal edition"
- Complete the detail fields and press the button "Proceed to download"
- Press the button "download" by "VNC Personal Edition Viewer for Windows (x86, x64 & ia64); Version 4.2.6; Stand-alone Viewer"
- Press the button "Download"
- Choose "Save"
- Execute "vnc-P4\_2\_6-x86\_win32\_viewer.exe" from the directory, where you have saved the file
- To grant demo server access even through a firewall, we provide access over port 443 as well.
- Please specify server name "demo.elinos.com::443" in case of trouble using the default port (5900).

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## 6 VNC installation on Linux PC

Depending on the Linux distribution you installed, various ways are available. Preferably use the package management tools like

- SuSE YaST
- Debian apt-get
- Ubuntu synaptic

Recommended version is "VNC viewer version 3.3.7". The according package name is "xvncviewer" for Debian based distributions and "tightvnc", when using SuSE.

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**Summary:** This document describes the usage of ELinOS on the demo server.

## 1 Introduction

The demo server provides a fully installed ELinOS ApplicationSuite Workstation, as well as a real embedded target connected. All the work you will do in the future, can be tested life. To get the most efficient impression, please follow the suggestions and examples and after that, feel free to make your own experiences.

## 2 Common issues

A fully installed development seat/cross development host means, that all tools provided by the ApplicationSuite are installed and a PPC target is connected. Host and target are connected by network, and a connection by serial line for monitoring console activities is available.

## 3 Key features/handling issues

- Image transfer to target by network boot mechanism (using bootp)
- Automatic cleanup after session expired
- Provided sample images: Web-server, CODEO, COGNITO
- By default, an image named target.img is booted. Name the images you create accordingly.
- A serial console is provided to monitor target activities and standard output.
- Optionally you can invite guests, to observe your activities by logging in with the "RO"-Read-only password

## 4 Objective Target

The intention of the demo server is to provide you with a "ready to use" workstation, where you can use the tools and test the results in conjunction with a real target board. You can create Embedded Linux ELinOS images, download them to the target, modify them, recreate and test again your modifications without limitations. You can create C/C++ projects within CODEO IDE, test deployment, use cross-debugging. Furthermore there is a sample provided to test the analysis features, COGNITO System Viewer and Trace tool.

## 5 Desktop Icons

- elk -> Starts the Configuration Tool ELK
- CODEO -> Starts the Eclipse Framework for Application Development/Debug and Analysis
- Target Output -> Opens a read-only console to the embedded target
- Reset Target -> Here you can perform a hard reset to the embedded target
- Firefox -> The browser where you can e. g. connect to the target provided web server
- ELinOS Manual -> Opens the ELinOS Manual PDF document
- Quickstart -> Opens this brief guideline PDF Document
- home -> Opens the file browser
- xterm -> Console to local development host

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## 6 Create your first ELinOS project

To get an impression how quick and easy a Linux image for the connected embedded target could be created, simply follow the instructions in this section.

### 6.1 Clone project

1. Double-Click the elk icon
2. Click "Clone an existing project"
3. Click once on the "Webserver" folder and press OK
4. Leave project-name as is and click OK
5. Wait – the project is being prepared
6. Press OK (Warning Pop-Up)
7. Expand "Board selection" tree
8. Scroll down and select "MEN EM4"
9. Press CTRL-S or select "Project" "Save" from the top menu
10. Wait until the project is set up completely

### 6.2 Feature settings

1. Click on the "Features" button to open up the "FeatureAssembler"
2. Expand "Networking"
3. Expand "TCP/IP settings"
4. Expand "Choose your setup method"
5. Select "Fixed values"
6. Expand "Fixed values"
7. Click "IP address" and enter "10.100.100.5"
8. Click "Netmask" and enter "255.255.0.0"
9. Do not modify anything else

### 6.3 Create boot image

1. Click on "Bootfiles" in the top navigation buttons
2. Click "Save" in the pop-up window
3. After the image builder view opened, click "Create Files"
4. Wait – the kernel, root file-system and image is being created now (takes 1 – 2 min.)
5. Image creation is finished when pop-up window "Building the project succeeded" appears

### 6.4 Deploy image

How to copy the created image to the network boot server:

1. Use file-browser: open the "Home" labelled file browser icon, click "WebServer-Clone" folder, click "boot"
2. Open another file browser window, click "tftpboot"
3. Use "Drag and Drop" to copy the "webserv.img" to "tftpboot", select "Copy" in the pop-up window and click "Yes"
4. Or by command-line: Double click the xterm console icon, enter "cp WebServer-Clone/boot/webserv.img /tftpboot/"
5. Open up the "Target output" by double clicking the icon
6. Double click "Reset Target" and observe the target booting
7. After the banner appears, target is up and you can test the web server

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## 6.5 Test your first ELinOS project

1. Open up "Firefox" and enter the IP Address "10.100.100.5"
2. You are now connected to the target web server you recently build

## 6.6 Next steps

1. Step back to "ELK FeatureAssembler" and modify the target features
2. For example, set a "hostname" or add "telnet"
3. Create image
4. Deploy image
5. Reset target
6. Check results of your modifications

Feel free to clone other projects, using the template projects provided. Simply follow the previously stated instructions.

## 7 Application Cross-Development and Cross-Debugging

For testing the CODEO cross-development and cross-debug IDE simply provide the prepared CODEO image to the boot server. Open the xterm console, enter "cd /tftpboot ; cp codeo.img target.img" and click the "Reset target" icon on the desktop. The target boots the CODEO image we created by "Cloning CODEO Template" using the ELK. For further information about working with CODEO or cloning projects, please refer to the online documentation, available on the desktop by clicking "ELinOS Manual" and within the Eclipse based CODEO in the help menu.

## 8 Target Analysis

For testing the COGNITO analysis simply provide the prepared COGNITO image to the boot-server. Open the xterm console, enter "cd /tftpboot; cp cognito.img target.img" and click the "Reset target" icon on the desktop. The target boots the COGNITO image we created by "Cloning COGNITO Template" using the ELK. For further information about working with COGNITO, please refer to the online documentation, available on the desktop by clicking "ELinOS Manual" and within the Eclipse based COGNITO in the help menu.