

## Energy Diagnostic Software Startup

### S-AB-P-056 Rev A

The EP Energy Diagnostic (EP-ED) software consists of three components:

- 1) The Server runs on a Windows® PC named *tarvos*, (located in Laser Sources) reads-and-interprets the actual spot data from the EP Energy Diagnostic hardware, and delivers per-spot “counts” to connected clients.
- 2) The Display Client “EPED-GUI.” Runs on any Solaris® workstation (*tierra* in the EP Control Room), receives “counts” data from the Server, converts “counts” to energy, and displays the energy for each channel.
- 3) The OIP Client runs on Solaris® workstation *tierra* in the EP Control Room, when shots are to be taken. This client relays OIP messages from the EP Laser Sources Executive (ep-lse) to the Server, and performs data logging at shot time.

Prior to activation, only the Server (1) and the Display Client (2) need to be run. A future update of this document will add instructions on how to start the OIP Client as well.

**Server Startup Procedure:**

- 
- 1 Starting the Server requires access to, and logging in on, Windows PC *tarvos*. This can be done at *tarvos*, or by connecting to *tarvos* with the VNC remote-operation client (see Appendix A).
- To start the Server on *tarvos*:
- 
- 2 If no one is presently logged in on *tarvos*, log in as user **epls**.
- On the desktop is an icon labeled “**StreakFrame 1.5**,” appearing as a gray box with several black “scope traces” in it. Double-click this icon.
- 3 The ED Server window should shortly appear, entitled “EP\_ED [Untitled.hdf\*]” and displaying the raster image taken from the Energy Diagnostic hardware’s CCD.
- 
- 4 You can confirm that the Server is running and is delivering channel data, by launching a **HyperTerminal** session to connect to the Server and observe its output:
- On the desktop is an icon labeled “**StreakFrame**,” appearing as a big red telephone next to a small yellow telephone. Double-click this icon.
- 5 *If* a dialog box appears asking whether you “want to make **HyperTerminal** your default telnet program,” click *No*. A splash panel appears, advertising **HyperTerminal**, then after a brief delay the **HyperTerminal** window itself appears.
- 
- 6 At this point, **HyperTerminal** is *already connected* to the EP-ED Server, and you need do *nothing further*. If all is operating properly, you should see a series of data values appearing in the **HyperTerminal** window at brief intervals.
- Note: If you do not see any data, contact SDG.**

---

(End of procedure)

**Display Client Startup Procedure:**

---

Log into any EP-network Solaris® host as (EP Laser Sources Operator) **epls**

- Click on the icon labeled “EP-ED” to start the EP Energy Diagnostic Display Client
- Click on the icon labeled “EPED\_OIP” to connect it to the laser sources executive.

1

**Note: You may have to wait 30 to 60 seconds if the system is busy.**

If the EP\_ED GUI does not appear on the screen within 30 to 60 seconds after double-clicking the icon, the following procedure can be used:

- 
- Find an existing Terminal window on the desktop, *or* bring up a new Terminal window. (Right-click on the desktop, and select “Open Terminal” from the popup menu that appears.)
- 2 Wait until a new terminal window appears.

**Note: this can take up to two minutes.**

---

In the Terminal window there will be a command prompt. At that prompt, issue the following command, *exactly as shown here, including capitalization and punctuation*:

```
DATABASE=ep_exp eped -h tarvos -p 31415 >/u/epl/eped.log 2>&1 </dev/null
```

If this, too, fails to bring up the Display Client GUI, contact SDG.

3

If the system is to be used in shot operations, issue the following command to connect it to the laser sources executive:

```
EPED_DEBUG=1 DATABASE=ep_exp eped_oip -h tierra -C tarvos -c 31415 /u/epl/eped_oip.log
```

---

(End of procedure)

Appendix A: using VNC to connect to *tarvos*

VNC stands for “Virtual Network Computing.” It is a networked client-server program available on many different computing platforms. The client, running on a local computer, connects to a server, running on a remote computer, and provides a *local window* which “becomes,” in effect, the *remote computer’s desktop*. The local user can fully operate the remote computer exactly as though he/she were sitting at the remote computer.

To connect to *tarvos* via VNC:

- 
- 1 Find a computer on which the VNC client (named **vncviewer**) is installed. Start **vncviewer** by whatever means are appropriate on the platform where you find it (on Windows®, double-click an icon, or find-and-select **vncviewer** in the start menu; on a Solaris machine, the procedure may be different; if you need help, contact CSG “for assistance running the VNC client.”)

---

  - 2 When successfully launched, **vncviewer** first puts up a small dialog box prompting you for the “VNC server,” i.e. the name (or address) of the remote computer to which you wish to connect. Enter the name *tarvos* and either press RETURN, press ENTER, or click “OK” if such a button is offered.

---

  - 3 **vncviewer** then prompts you for a password. For *tarvos* the password is *omegaops*. Enter this and either press RETURN, press ENTER, or click “OK” if such a button is offered.

---

  - 4 **vncviewer** then opens a window in which you will see a representation of the *tarvos* desktop. All actions you perform inside this window will take place on *tarvos* just as though you were sitting at *tarvos* in person.

---

  - 5 Proceed from *Step 2* of “**Server Startup**,” in this document.
- 

(End of procedure)

**S-AB-P-056 Energy Diagnostic Software Startup**

**Document Release:**

This document is a component of Vol. IX OMEGA EP System Startup and Shut Down, Chapter 2, Laser Sources Operating Procedures, S-AB-P-011.

Approval for release of this document into the PDM system was granted by:

- S. Loucks; Director, LLE Engineering Division
- S. Morse; OMEGA EP Project Manager
- J. Edwards; OMEGA EP System Engineer
- R. Kidder; OMEGA EP Controls Subsystem Engineer
- J. Puth; OMEGA EP Laser Sources Subsystem Engineer