

– LPI 101 –

Setup a Display Manager

(Linux Professional Institute Certification)

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```
.~.      by: Andrew Eager  
/V\      andy@linuxivr.com.au  
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```

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Setup a Display Manager

Objective

Candidate should be able setup and customise a Display manager. This objective includes turning the display manager on or off and changing the display manager greeting. This objective includes changing default bitplanes for the display manager. It also includes configuring display managers for use by X-stations. This objective covers the display managers XDM (X Display Manger), GDM (Gnome Display Manager) and KDM (KDE Display Manager).

Setup a Display Manager

Key files, terms, and utilities

`/etc/inittab`

`/etc/X11/xdm/*`

`/etc/X11/kdm/*`

`/etc/X11/gdm/*`

Setup a Display Manager

Resources of interest

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Display Managers

- Manages connection to local or remote X sessions
- Similar function to getty & login
- Different types are:
 - KDM - KDE Display Manager
 - GDM - Gnome Display Manager
 - XDM - X Display Manager (base X system)

Life Cycle of a DM

- When a display manager is started, it:
 - Starts up X servers on each display configured
 - Displays a GUI login window
 - Authenticates user / password
 - Starts selected X-session (KDE, Gnome, Xterm..)
- When the X-session ends it:
 - Resets the X server
 - Repeats the process above (optional)

Local & Remote X sessions

- A user logging in through XDM can:
 - Log into their local system
 - Log into another system running XDM
- For remote logins, XDMCP (X Display Manager Control Protocol) is used
- A remote X login can be established to:
 - A specific host
 - Any available host (broadcast)
 - A host chosen from a list

Direct Remote X login - Client Side

- To log into a specific host:

```
$ X [display] -query <server-name> ↵
```

Example:

```
$ X :1 -query node10.c222 ↵
```

This will startup an X server on the second display of your local machine. The X session established will run on the host node10.c222

- This assumes that node10.c222 has allowed access to the client in its xdm-config.

Broadcast Remote X login - Client Side

- To log into any host running xdm:

```
$ X [display] -broadcast ↵
```

Example:

```
$ X :1 -broadcast ↵
```

This will startup an X server on the second display of your local machine. The X session established will run on any host that responds to the broadcast request.

- This assumes that xdm on the server machines have been configured to listen to broadcast requests.

Chooser Remote X login - Client Side

- To log into a host by selecting it from a chooser list:

```
$ X [display] -indirect <server-name> ↵
```

Example:

```
$ X :1 -indirect foozle.c222 ↵
```

This will startup an X server on the second display of your local machine. A list of hosts available for logon will be generated by foozle.c222. An X session will then be established on the host selected from the list.

- This assumes that xdm on foozle.c222 has been configured to provide clients with a chooser

Configuring XDM

- XDM has its configuration files in `/etc/X11/xdm`
- `xdm-config` controls xdm functionality
- `Xaccess` controls which clients can access XDM
- `man xdm` gives full documentation to both files

Configuring Xaccess

- Xaccess has 4 different syntaxes:
 - `pattern` - Controls direct & broadcast access
 - `pattern <host-list>` - Forwarding of indirect access
 - `pattern CHOOSER BROADCAST` - To use a chooser
 - `pattern CHOOSER <host-list>` - To use a chooser with a specific list

Xaccess - Direct & Broadcast

- To control direct and broadcast access to XDM simply specify a list of hosts that are allowed to connect:

Example `/etc/X11/xdm/Xaccess`:

```
!badguy.c222
```

```
*.c222
```

This says allow all hosts in the c222 domain except for the host badguy.c222 to connect to XDM.

Xaccess - Providing a chooser

- To have XDM provide a predefined list of available hosts for all indirect requests:

Example `/etc/X11/xdm/Xaccess`:

```
admin.c222    CHOOSER    BROADCAST
*.c222       CHOOSER    node1.c222 node2.c222
```

This says that `admin.c222` will get a list of hosts discovered on the network by using a broadcast to choose from. Anyone else in the `c222` domain will get a list with only `node1` and `node2` in the list.

xdm-config - Enabling chooser requests

- In order to use the chooser, the following line needs to be removed from `/etc/X11/xdm/xdm-config`:

```
! SECURITY: do not listen for XDMCP or Chooser requests  
! Comment out this line if you want to manage X terminals with  
DisplayManager.requestPort: 0
```

- Note that a comment in this file starts with a '!'.