

Remote Access: vnc

CIS 2230 Linux System Administration
Lecture 15b
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Review

- What makes `ssh` so popular?
- What is the protocol to connect remotely using `ssh`?
- What does `scp` do?
- What is the filename protocol when using `scp`?
- What is the default `ssh` port?

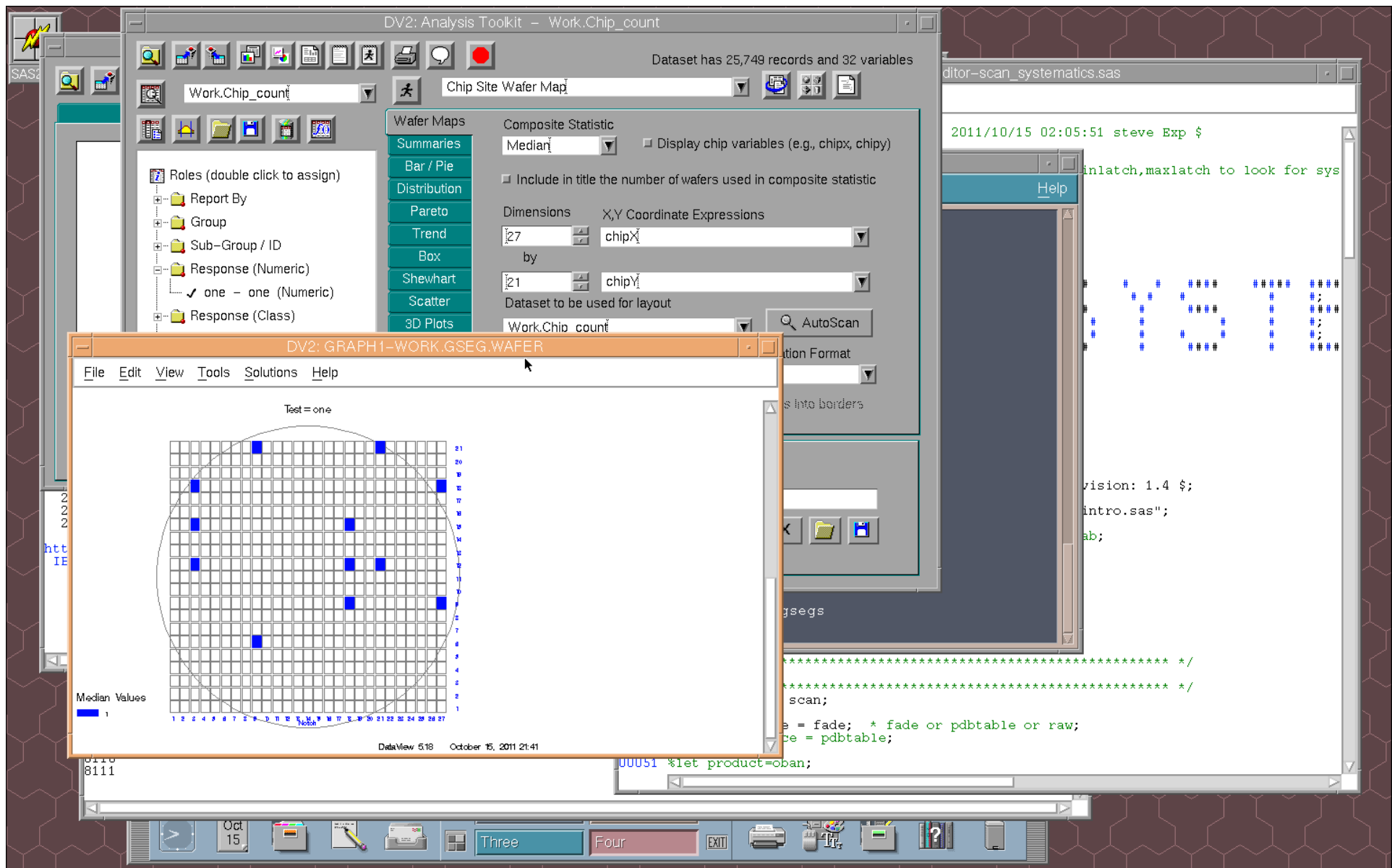
vnc

- <https://help.ubuntu.com/community/VNC>
- Developed in '50s (?) by AT&T -- open source
- A vnc server runs on the host which shares the screen
A vnc viewer runs on the guests to view that screen
- What's *beautiful* about VNC?
 - The (X/gui) session remains on the host and is retained even if you log off. You can re-login later to the exact same point you left it!
 - Only "pixels" are sent to the VNC Viewer. Not X11 commands to interpret/emulate.
- Also OS independent.
The most popular Windows app called "RealVNC"

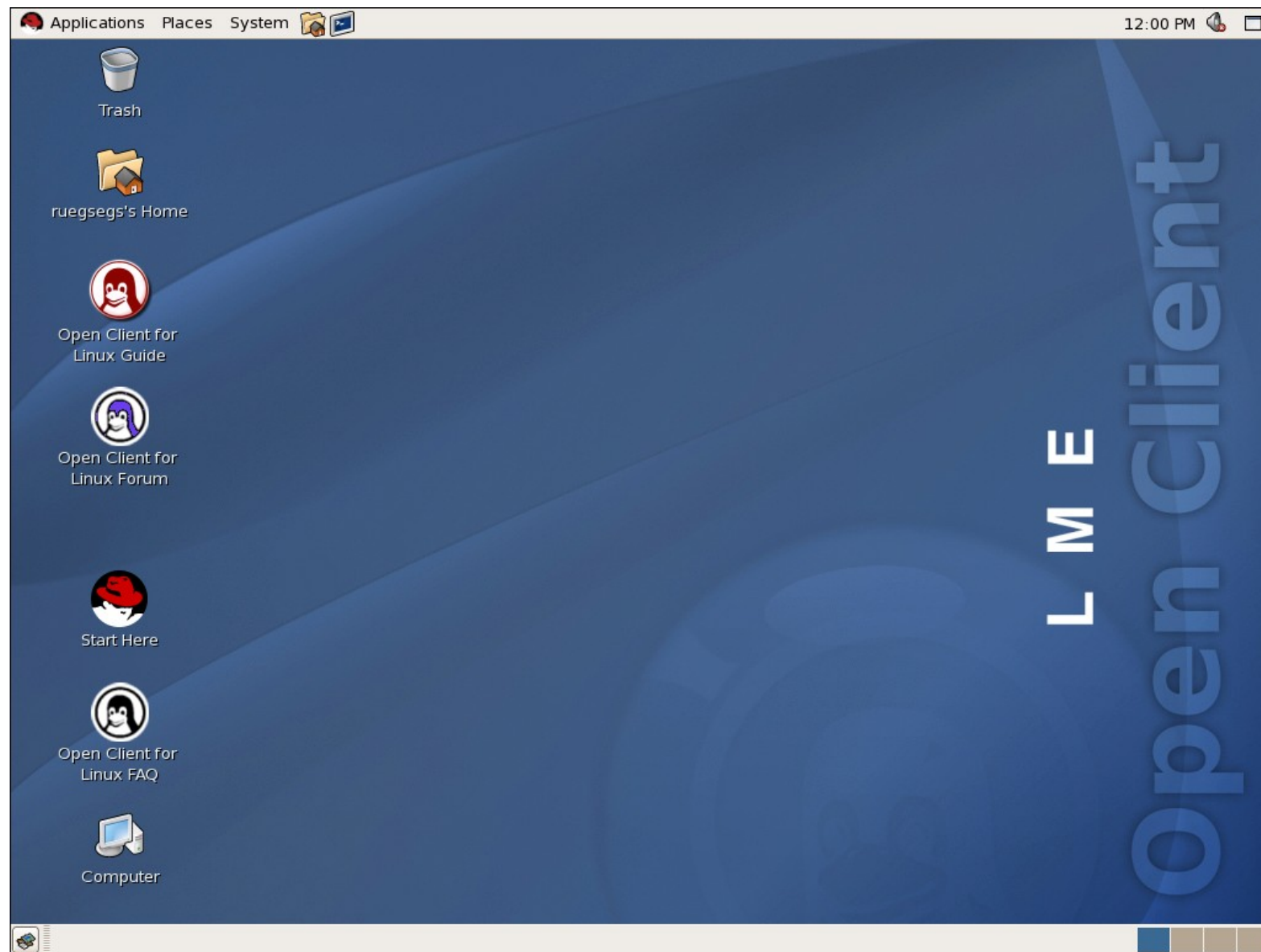
vnc install

- vnc is not installed by default
 - There are several different linux packages. You can chose any of these:
 - server: x11vnc, [vnc4server](#), xtightvncserver
 - viewer: [xvnc4viewer](#), vinagre, xtightvncviewer
- ```
$ sudo apt-get install xvnc4viewer
```

## vnc to AIX



## vnc to Red Hat Fedora



## vnc ports

- standard VNC ports are 5900 - 5999
- these correspond to :0 - :99 "vnc ports"
  - just subtract 5900
  - i.e. vnc “adds” 5900 to a vnc port (starts with colon)
- Each vnc session needs its own port

## How does vnc work?

- Understand the 2 components:
  - 1) vncserver – (host / remote)
  - 2) vncviewer – (local)

## How does vnc work?

### vncserver

- A) Started by a user on the host machine
- B) the user has to ssh to the host and start vncserver
- C) *That* vnc session reports a vnc port (1-99 = 5901-5999)
- D) Then, the above ssh session can end (vncserver is in background)

```
bob@remote:~$ vncserver
```

```
New 'remote:5 (bob)' desktop is remote:5
```

```
Starting applications specified in /home/bob/.vnc/xstartup
Log file is /home/bob/.vnc/srueg:1.log
```

vncport :5=5905

## How does vnc work?

### vncviewer

- A) The user starts the vnc viewer app from the client computer
- B) The user requests the above vncserver host and vnc port
- C) The server sends the X screen from the host to the client

## vncserver setup on remote server

- Two things to setup:
  - 1) vnc password
  - 2) xstartup file
- vncserver has a vnc password
  - It never expires.
  - Encrypted in ~/.vnc/passwd
  - Set with `$ vncpasswd`
  - If you forget it, just reset with command above

## Sad to say...

- `~/ .vnc/xstart up` is the start up script for vnc
- Problem: Sadly, there is a bug with Unity-3D and vnc.
  - Unity 3-D is the default GUI for Ubuntu
- Solution
  - You can use Unity 2-D
  - Kubuntu (KDE) and Lubuntu (LXDE) work fine
  - We edit the xstartup file to start the GUI we want.
  - The example servers for this class use LXDE