Bridging the gap with Portable Apps

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Agenda

- What is a Portable Apps
- Brief demo of our portable HPCC USB drive
- What we needed to do to make our portable HPC drive.
Bridging the gap

• **Problem:** many turnkey, domain specific software packages are available to help users take advantage of HPC. However, novice users of cyber-infrastructure are often overwhelmed by the complexities of using cyber-infrastructure.
What is a Portable App?

• Software that runs on a portable (USB) drive
  – Doesn’t require any kind of formal installation on the host machine
  – Settings are stored with the portable drive
  – Ideally leaves a zero (or near-zero) “footprint” on any PC it is run on after being used.

Source: wikipedia.org
Apps that I included

• Connecting
  – Putty
  – SCP
  – X11 (tricky)
• Documentation / News
  – Firefox
• Help
  – Firefox
  – IRC
• Common
  – Java
  – Portable Apps Menu

All worked, “out of the box”
Custom settings

• All of the programs are set up to use all of our facilities including:
  – iCER home page
  – iCER Chat room
  – iCER RSS news feed
  – default ssh connection
Education and Outreach

- HPC training seminars
- One-on-one consulting
- Giveaways at events
Cons

- Windows only
- License Agreements and Distribution
- Possible Security Holes
- Adding unsupported software can be a little tricky.
Unsupported Software

• Needs to be able to run in its own directory.
  – An easy test is to copy the running directory to another computer and see if the software works
  – ./Porta bleApps/ProgramFolder

• The PortableApps menu is populated by searching for exe files in the top level directory.
  – You don’t want extra exe files
  – You can’t use custom batch files (directly)
Xming How-to

• Copy entire working x11 directory
• I wrote a batch file that starts X11 and then uses the portable apps version of putty

```bash
start ./Xming/xming.exe :0 -multiwindow
start ../PuTTYPortable/PuTTYPortable.exe
```

• However, this doesn’t quite work because the Portable Apps menu is populated by searching for exe files
Bat-to-Exe Converter v1.4

- These converters exist to make exe files out of MSDOS batch files.
- Be careful, there are converters that add bad stuff to the code. I used http://www.f2ko.de/
  - Select the Batch File
  - Select the .ico file
  - Type in name to save
  - Hit compile button
Java Apps

- Install portable java
- Downloaded a copy of the jar file
- Batch files (use relative paths):

```bash
start ..\CommonFiles\Java\bin\javaws teragrid.jnlp

start ..\CommonFiles\Java\bin\java -jar .\TeraGridFileManager.jar
```

Note: I got this working over the weekend and not on your usb keys.
Next Steps

• Get all fonts working in Xming
• Add support for Linux and Macs
• New applications
  – Portable Eclipse PTP
  – Portable GenesisII?
QUESTIONS?