

# Virtual Box for CF Developers

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# Your Presenter

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- ColdFusion, Etc. Developer
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# Topics

- What is virtualization?
- How does that help me?
- How do I get started?
- Then what?

# Demos

Install Vbox

Create a new VM

Install Ubuntu 9.10

Create 3 virtual dev setups

"One man shop" "multi-dev" "hey y'all, watch this"

# "VM"? Whaz dat?

Is THIS the real Matrix?



- A computer pretending to be a computer.
- A host operating system contains a guest OS.
- "Cheat" to make the guest almost as fast.

# According to Adobe's CF9 EULA

- 1 Standard license per 2 cpu or 1 VM
- 1 Enterprise license per 2 cpu,  $\infty$  VM

# How Does That Help Me?

- Loose coupling between hardware and software
- Portable
- Swappable
- Expendable
- Simulate your target environment

# Test and Stage servers

- Old way
  - Copy code to testing server
  - QA check for problems
  - QA approves, code is copied again
- VM way
  - Give a copy of your VM to QA
  - QA checks for problems
  - QA approves, VM is now a release candidate

# Preserve Your Environment

- Install CF Builder on top of cfecclipse
- Trying something 'risky' with settings
- Share with the group
- Upgrade to new hardware

# Let's do this!

- Get vbox for your development machine.
  - Mac, Windows, Linux, OpenSolaris
  - <http://www.virtualbox.org/wiki/Downloads>
- Pick out a guest OS.
  - Similar to production environment
  - <http://virtualboximages.com/>
- Grab software
  - CF, a database, apache, whateva.

# Install Vbox

- Demo – Install VirtualBox

# Setup and Install Guest OS

- Follow the wizard to create a VM or load a readymade image.
- Install the OS like normal
- Don't forget the guest additions!!
  - Resize window, fullscreen/seamless
  - share clipboard, mouse, keyboard

# SNAPSHOT!

- Backup, restore previous state
- Snapshots: cheap copy "Difference Image"

# Create A Share Directory

- Add a shared folder to link guest/host OS such as /var/www or c:\htdocs.
- Search the interwebs for instructions specific to your OS.
- Example instructions for Ubuntu can be found at:
- <http://forthedeveloper.com/2009/coldfusion-virtualbox-and-ubuntu/>

# Add A Host Alias

- Use the hosts file on your host OS to give your VM a domain.
  - Linux: /etc/hosts
  - Win: C:\Windows\system32\drivers\etc\  
etc\hosts
  - Mac: /private/etc/hosts

# VirtualBox Networking Modes

- Not Attached – no inter-web-tubes
- Network Address Translation – Port forwarding to/from host OS.
- Bridged Networking – Software based interface on host.
- Internal Networking – VM to VM network only
- Host-only Networking – like bridged, but doesn't leave your physical box

# Networking Cont.

- Machine starts with a NAT interface.
- Add a Host-Only interface. This interface will get a loopback ip on your host operating system but it remains hidden from the rest of the world.
- I added the Host-Only as Adapter 1 and NAT as Adapter 2. Some configuration was needed for the other direction.

# NAT Setup

## DOS/Terminal Commands

```
VBoxManage setextradata "Ubuntu CF" "VBoxInternal/Devices/pcnet/0/LUN#0/Config/guesthttp/Protocol" TCP
VBoxManage setextradata "Ubuntu CF" "VBoxInternal/Devices/pcnet/0/LUN#0/Config/guesthttp/GuestPort" 80
VBoxManage setextradata "Ubuntu CF" "VBoxInternal/Devices/pcnet/0/LUN#0/Config/guesthttp/HostPort" 8580
```

--== OR ==--

Edit {vboxhome}/Machines/MachineName/MachineName.xml

Add this to the <ExtraData></ExtraData> section:

```
<ExtraDataItem name="VBoxInternal/Devices/pcnet/0/LUN#0/Config/http/GuestPort" value="80"/>
<ExtraDataItem name="VBoxInternal/Devices/pcnet/0/LUN#0/Config/http/HostPort" value="8585"/>
<ExtraDataItem name="VBoxInternal/Devices/pcnet/0/LUN#0/Config/http/Protocol" value="TCP"/>
```

# Where is it stored?

- Windows XP
  - `c:\Documents and Settings\username\.VirtualBox\`
- Linux/Unix
  - `/home/username/.VirtualBox/`

Machines/  
HardDisks/  
VirtualBox.xml

# VirtualBox Enterprise

- Personal use and evaluation features
  - USB support
  - RDP for the VM
  - USB over RDP



# References and Links

- <http://www.virtualbox.org/>
- <http://download.virtualbox.org/virtualbox/3.0.12/UserManual.pdf>
- <http://forthedeveloper.com/2009/coldfusion-virtualbox-and-ubuntu/>
- <http://blog.zoobiesoft.com/index.cfm/2009/10/22/CFinNC-more-information-than-u-could-shake-a-stick-at>
  - Yancy Wharton presentation at CfinNC
- [http://httpd.apache.org/docs/2.0/mod/mod\\_alias.html#alias](http://httpd.apache.org/docs/2.0/mod/mod_alias.html#alias)
  - Making the cfide directory map correctly in Apache2.
- [http://help.adobe.com/en\\_US/ColdFusionBuilder/Using/WS0ef8c004658c1089-38317734121cdfd5fd3-7fff.html#WS0ef8c004658c1089-38317734121cdfd5fd3-7ffe](http://help.adobe.com/en_US/ColdFusionBuilder/Using/WS0ef8c004658c1089-38317734121cdfd5fd3-7fff.html#WS0ef8c004658c1089-38317734121cdfd5fd3-7ffe)
  - ColdFusion Builder RDS setup instructions.

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