AVOIDING "AUTOMATICALLY START" PROBLEMS WHEN USING "HYPER-V" TO RUN VIRTUAL MACHINES IN "WINDOWS 8.."

by Francis Chao
fchao2@yahoo.com
Web location for this presentation:

http://aztcs.org

Click on “Meeting Notes”
SUMMARY

When using "Hyper-V" to run virtual machines in "Windows 8..", you might inadvertently "automatically start" a bunch of virtual machines when you power up your computer. Here is how you can prevent this catastrophe.
What happened?

• We installed "Window 8 Release Preview 64-bit" into a HP laptop.
• Next, we installed the bundled "Hyper-V" program.
• Next, we installed a stack of "Windows.." and "GNU/Linux" virtual machines.
• We took this computer to a meeting of the Tucson Computer Society and we were unable to start any of the virtual machines that we had installed:
The application encountered an error while attempting to change the state of 'Windows 7 Enterprise Trial 64-bit 2012-06-04'.

'Windows 7 Enterprise Trial 64-bit 2012-06-04' could not initialize.

Not enough memory in the system to start the virtual machine Windows 7 Enterprise Trial 64-bit 2012-06-04.
Initial Diagnosis

• We pressed Ctrl + Shift + Escape to bring up the Windows "Task Manager" and we discovered that we had two virtual machines running in the background that we did not start up:
More Diagnosis

- We discovered that we had created a "comedy of errors" as follows: When you create a new virtual machine in "Hyper-V" it defaults to restarting itself if you shut down your (real) host computer without first shutting down the guest operating system of the virtual machine.
More Diagnosis (continued)

• We apparently had shut down our (real) host computer a number of times without shutting the guest operating system inside various virtual machines.

• Whenever we did this to a virtual machine, it would then automatically start up (forever) whenever we powered up our (real) host computer.
Pretty soon we had several virtual machines running in the background each time we powered up our (real) host computer. Each virtual machine used up a significant portion of the RAM of the (real) host computer. After we had two virtual machines running in the background, we were unable to start or create new virtual machines, in our RAM-starved computer!
Avoid Making Our Mistake!

- In the "Settings.." screen of each virtual machine, set "Automatic Start Action" to "Nothing".

- Configure your taskbar buttons so that they are not stacked up, so you can see each running virtual machine as an individual "Task button".

- Set the height of the "Hyper-V Manager" window as tall as possible so that it displays as many virtual machines in the virtual machine list as possible.\(^{11}\)
Set "Automatic Start Action"
Do the following for each virtual machine that you create:

- Click on the virtual machine in the virtual machine list in the "Hyper-V Manager" Window
- Click on "Settings.."
- A "Settings" window will be displayed.
Set "Automatic Start Action" (continued)

• Click on "Automatic Start Action" to highlight it

• Click on the "Nothing" radio button to select it.

• Click on the "Apply" button of the "Settings.." window.

• Click on the "OK" button of the "Settings.." window.
Settings for Windows 8 Release Preview 64-bit 01 2012-06-06 on E9280T

Hardware

- Add Hardware
- BOS
  - Boot from CD
- Memory
  - 2512 MB
- Processors
  - 4 Virtual processors
- IDE Controller 0
  - Hard Drive
    - Windows 8 Release Preview
- IDE Controller 1
  - DVD Drive
    - None
- SCSI Controller
- Network Adapter
  - External Virtual Switch 01
  - COM 1
    - None
  - COM 2
    - None
  - Diskette Drive
    - None
- Management
  - Name
    - Windows 8 Release Preview 5...
  - Integration Services
    - All services offered
  - Snapshot File Location
    - C:\ProgramData\Microsoft\Windows\...
  - Smart Paging File Location
    - C:\ProgramData\Microsoft\Windows\...
  - Automatic Start Action
    - Restart if previously running

Add Hardware

You can use this setting to add devices to your virtual machine. Select the devices you want to add and click the Add button.

- SCSI Controller
- Network Adapter
- Legacy Network Adapter
- Fibre Channel Adapter

You can increase the storage available to a virtual machine by adding a SCSI controller and attaching virtual hard disks to it. A SCSI controller requires integration services in the guest operating system. Do not attach a system disk to a SCSI controller. System disks must be attached to an IDE controller.
Management

Name
Windows 8 Release Preview 6...

Integration Services
All services offered

Snapshot File Location
C:\ProgramData\Microsoft\Wi...

Smart Paging File Location
C:\ProgramData\Microsoft\Wi...

Automatic Start Action
Restart if previously running
Automatic Start Action

What do you want this virtual machine to do when the physical computer starts?

- [ ] Nothing
- [x] Automatically start if it was running when the service stopped
- [ ] Always start this virtual machine automatically

Automatic start delay

Specify a startup delay to reduce resource contention between virtual machines.

Startup delay: 0 seconds
Automatic Start Action

What do you want this virtual machine to do when the physical computer starts?

- [ ] Nothing
- [ ] Automatically start if it was running when the service stopped
- [ ] Always start this virtual machine automatically

Automatic start delay

Specify a startup delay to reduce resource contention between virtual machines.

Startup delay: 0 seconds
Configuring Taskbar Buttons

• Use the RIGHT mouse button to click once in an unused area of the task bar.
• A pop-up context menu will be displayed.
• Click on "Properties" in the pop-up context menu.
• A "Taskbar Properties" window will be displayed.
• For "Taskbar button", use the drop-down list arrow button to select "Never combine".
Configuring Taskbar Buttons (continued)

• Click on the "OK" button of the "Taskbar Properties" window.
Taskbar Properties

- **Taskbar**
  - Lock the taskbar
  - Auto-hide the taskbar
  - Use small taskbar buttons

- **Taskbar location on screen:**
  - Bottom

- **Taskbar buttons:**
  - Always combine, hide labels

- **Notification area:**
  - Customize...

- Use Peek to preview the desktop when you move your mouse to the Show desktop button at the end of the taskbar.

**How do I customize taskbars?**
Taskbar Properties

- Lock the taskbar
- Auto-hide the taskbar
- Use small taskbar buttons

Taskbar location on screen: Bottom
Taskbar buttons: Never combine
Notification area: Customize...

Use Peek to preview the desktop when you move your mouse to the Show desktop button at the end of the taskbar

How do I customize taskbars?

OK  Cancel  Apply
Set the Height of the "Hyper-V Manager" Window:

- If you have created more than four virtual machines, the "Virtual Machines" list in the "Hyper-V Manager" windows will only show a subset of the entire set of virtual machines:
  In order to see the entire list, you have to click on one and then use the up and down arrow keys to move through the list of virtual machines.
### Virtual Machines

<table>
<thead>
<tr>
<th>Name</th>
<th>State</th>
<th>CPU Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE7 Vista VHD Trial 2012-06-05</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>Linux Mint 13 32-bit with Cinnamon Deskt...</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td><strong>Linux Mint 13 64-bit with Mate Desktop E...</strong></td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>MS-DOS 6.0 01 2012-06-05</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>Parted Magic 2012-06-26</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>Puppy Linux 2012-06-18</td>
<td>Off</td>
<td></td>
</tr>
</tbody>
</table>

### Actions

- New
- Import Virtual Machine...
- Hyper-V Settings...
- Virtual Switch Manager...
- Virtual SAN Manager...
- Edit Disk...
- Inspect Disk...
Set the Height of the "Hyper-V Manager" Window (continued):

• Use the left mouse button to click and drag the top edge of the "Hyper-V Manager" window as high up in the monitor screen as possible.

• Use the left mouse button to click and drag the bottom edge of the "Hyper-V Manager" window as low in the monitor screen as possible.
### Virtual Machines

<table>
<thead>
<tr>
<th>Name</th>
<th>State</th>
<th>CPU Usage</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE7 Vista Y-ID Trial 2012-06-05</td>
<td>Off</td>
<td></td>
<td>Import Virtual Machine, Hyper-V Settings, Virtual Switch Manager, Virtual SAN Manager, Edit Disk, Inspect Disk, Stop Service, Remove Server, Refresh, Help</td>
</tr>
<tr>
<td>Linux Mint 13 32-bit with Cinnamon Desktop</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linux Mint 13 64-bit with Mate Desktop Envior</td>
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<tr>
<td>MS-DOS 6.0 01 2012-06-05</td>
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<tr>
<td>Pentium Magic 2012-06-26</td>
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<tr>
<td>Puppy Linux 2012-06-18</td>
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</tr>
<tr>
<td>T2012_Plus_Pack_Rescue_media</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ubuntu 12.04 32-bit 2012-06-05</td>
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<td></td>
<td></td>
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<tr>
<td>Ubuntu 12.04 64-bit 2012-06-19</td>
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<tr>
<td>VM-801 Windows 7 Enterprise Trial 64-bit</td>
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<tr>
<td>Windows 7 Enterprise Trial 64-bit 2012-06-05</td>
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<tr>
<td>Windows 8 Release Preview 32-bit 01 2012-06-19</td>
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<td>Windows 8 Release Preview 64-bit 01 2012-06-19</td>
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<tr>
<td>Windows Vista Business FC</td>
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<td>251</td>
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<td>z_felled to install Ubuntu 11.04 32-bit</td>
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<td></td>
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<tr>
<td>z_felled to install Ubuntu 11.04 64-bit</td>
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<td></td>
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<tr>
<td>z_felled to install Windows 7 2012-06-05</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Snapshots

**Linux Mint 13 64-bit with Mate Desktop Envior**

- Created: 6/23/2012 1:17:53 AM
- Notes: None

**Summary** | **Memory** | **Networking**
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