I2 Virtualization Guide

This guide will show you how to run an I2 Virtual Machine using Microsoft Hyper-V.

Made by TWCDalk. For help/support, please email me at <u>tropidalk@gmail.com</u> or message me on discord at zeds1175.

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Introduction

Before we start, you're going to need a few things.

- Microsoft Hyper-V
- I2 Disk Image (preferably .mrimg format)
- Around 270 GB of disk space
- Windows 10 i2 Installer - <u>https://drive.google.com/file/d/15xaPjU_OpFhqGMnC_CdsZJ1HjBi</u> <u>m9KaZ/view?usp=sharing</u> (Also available on archive.org, search for "Windows 10 LTSC Enterprise 2021 (Windows 7 ES Direct Upgrade)")

You're going to want to use Hyper-V to create a new VM. Don't use "Quick Create", use the New -> Virtual Machine menu. Make sure when creating your VM, Dynamic Memory is off. Your virtual machine also needs to be Generation 1. For the virtual disk, you're going to need a 128GB virtual disk to start. We're going to use this disk to install Windows 10 and Macrium Reflect to image another virtual drive with the I2 image.

Once the virtual machine is made, go into the settings, and disable Checkpoints in the management section. You're also going to want to create another drive, a 1TB VHD on IDE Controller 0 for your i2 drive. My disk layout looks like this, with "i2 Image from Macrium.vhdx"

containing my I2 macrium image. I would use a network share to copy over the I2 disk image.

A Hardware		Processor		
Add Hardware BIOS Boot from CD		You can modify the number of virtual pro- the physical computer. You can also modi	fy other resource control settings.	ors on
Security Key Storage Drive d		Number of virtual processors:	8 🛓	
Memory 16384 MB		You can use resource controls to balan	ce resources among virtual machines	
 Processor 8 Virtual processors 		Virtual machine reserve (percentage):	2	
IDE Controller 0 Hard Drive		Percent of total system resources:	0	
Windows 10.vh	dx	Virtual machine limit (percentage):	100	
Hard Drive i2 Image from M	lacrium.vhdx	Percent of total system resources:	33	
E IDE Controller 1		Relative weight:	100	
SW_DVD5_Win_	_10_IOT_E	Hyper-V is not configured to enab	le processor resource controls.	
 Hard Drive i2 Image Virtual 	Machine vhd	Learn more about Hyper-V processor c		
SCSI Controller		Learn more about Hyper-v processor c	oniiquration options.	
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Management				
Name i2XD Tutorial				
Some services				

I also recommend changing the amount of CPU cores. By default, Hyper-V uses half of your host's processor. I personally have my i2s use a third of it. I would recommend AT THE LEAST 4 virtual processors for an I2Jr and 6 - 8 virtual processors for an i2XD.

When you boot it, you're going to want to make sure to have a Windows ISO mounted. Install windows onto the smaller drive, the 128GB one we created initially. Once installed, make sure to also copy over the I2 disk image, the Windows 10 I2 installer, and make sure to download and install Macrium Reflect (I use Free or Version 8). At the next section of this tutorial, we will assume you have finished imaging the I2 image onto your virtual drive. If you have issues with this, please contact me in the methods at the top of this PDF.

12 Windows 10 & First Boot

Before shutting down our Windows 10 VM, we're going to want to copy the Windows 10 I2 installer to the root of our i2's Windows drive. From here, we're going to want to use Oracle VirtualBox to boot the I2 in Windows 7. I recommend **immediately** disabling the network adapter in VirtualBox before booting.



If you have the images made by me & leaked from my time at Mist Weather Media, congrats! These images don't have Zabbix on them, as I've already removed them myself. For those who still have Zabbix/haven't removed it, sign into I2Admin (message Dalk), and go ahead and go into Task Manager (Services menu), and disable Zabbix. Then, go into File Explorer and find C:/Program Files/Zabbix (this should be the folder) and delete the entire folder.

Then, it's time to install Windows 10! Open the folder containing the Windows 10 installer and run the Setup.exe. This will install Windows 10 LTSC Enterprise 2021. Make sure to choose "Upgrade and keep apps and files". For the product key, use M7XTQ-FN8P6-TTKYV-9D4CC-J462D.

So congratulations! After installing, your I2 should be running Windows 10.

Windows 10 and Beyond

Assuming you have Windows 10 installed (if not, don't fret to ask for help!), you are now ready for honestly, the hardest part of the setup. The Hyper-V drivers. I made this tutorial here for creating these drivers, which should hopefully simplify the process. <u>https://youtu.be/6e43exK0zAl</u>

If you need help, PLEASE contact me. I am more than open to helping people with getting this working.

You can move back to Hyper-V at this point. Sign into I2Dev to copy over the drivers and put them in the right spot. You're going to want to open Windows IIS (Internet Information Services) in order to change some port bindings.





Open it and find the Default Site.

Right click on "Default Web Site" and find "Edit Bindings". Edit the binding for HTTP port 80 to any other port (such as 800).

After this, I recommend restarting your I2. When you open Internet Explorer to localhost 9091, you might get an access denied screen.

A 102 450 0 200		
Access Denied	×	
Access Denied		

If you do, open Internet Options



And from here, go to the Security tab. Then select Local intranet, set it to custom, and modify the settings. Go all the way to the bottom and set User Authentication to Prompt for username and password.

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Once you have done this, feel free to close and reopen Internet Explorer. At this point, if you haven't got a Viz error, you've most likely succeeded! I would also check Device Manager to make sure your GPU is there.

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File Action View Help	General Driver Details Events Resources	
	NVIDIA GeForce RTX 3060	
V 🗄 I2ADMIN-XD-STARGAZER		
> 📢 Audio inputs and outputs		
> 💻 Computer	Device type: Display adapters	
> 🛫 Digital Media Devices	Manufacturer: Microsoft	
> 👝 Disk drives	Location: Virtual PCI Bus Slot 0 Serial 1255057408	
🗸 🦕 Display adapters		
🔤 Microsoft Hyper-V Video	Device status	
NVIDIA GeForce RTX 3060	This device is working properly.	
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Data/Pipeline & running your first Presentation

If it is there, and no Viz errors have appeared, and the web panel is working, you're done! You now need to get data, and video input. For video input, I use this FFmpeg script:

ffmpeg -stream_loop -1 -re -i udp://@224.1.1.99:1234 -c:v copy -c:a copy -f mpegts udp://@224.1.1.100:1234

This will directly copy your video. You can use OBS to custom output to a UDP stream using FFmpeg with the container format set to MPEGTS and the video format set to either mpeg2video or h264 (requires —h264=1 in PipelineDecoder.cfg) and audio set to ac3.

Modify your pipeline files to use this input. If you need help with anything at this point, again, feel free to message me.

I personally use a private data encoder, but I would recommend I2ME by April (<u>https://github.com/mewtek/MistWX-i2ME/</u>) for anyone making their own i2.

I would try using the Load Run Playlist function in the web panel to run a test Azul presentation.

Flavor: "domestic/Azul" (OR "domestic/azul i2 jr" for i2JRs) Duration: 1800 PresentationId: 1

If this works and you can view it on the I2's output feed, congrats, everything is working!

You are now the proud owner of a Hyper-V i2xD!

You are free to use any parts of this guide to provide support to anybody or to create your own guides. If you use this to create a separate tutorial, please give credit.