

# ProLUG Automation

## Unit 9 Worksheet

### Instructions

Fill out this sheet as you progress through the lab and discussions. Hold your worksheets until the end to turn them in as a final submission packet.

### Discussion Questions:

**Unit 9 Discussion Post 1:** Read sections “Container Usage” and “Diskless Booting” on pages 8 and 9 of this doc:

<https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-223.ipd.pdf>

1. What are the main security concerns given about using containers in HPC?
2. What is the PXE or IPXE protocol defined for diskless booting?

**Unit 9 Discussion Post 2:** Read about chrooted environments here:

<https://en.wikipedia.org/wiki/Chroot> and the Ansible connector here:

[https://docs.ansible.com/projects/ansible/latest/collections/community/general/chroot\\_connection.html](https://docs.ansible.com/projects/ansible/latest/collections/community/general/chroot_connection.html)

1. What are the uses of a chrooted environment? (there are 5 on Wikipedia)
2. How might using Ansible to build chrooted images help improve your build process?

### Definitions/Terminology

### Notes During Lecture/Class:

Links:

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Terms:

- Warewulf terminology
  - Image repository
  - System Overlays
  - Runtime Overlays
  - Wwctl language

Useful tools:

## Lab and Assignment

Unit 9 Build Modern Linux - [https://killercoda.com/het-tanis/course/Automation-Labs/Unit9\\_Build\\_Modern\\_Linux](https://killercoda.com/het-tanis/course/Automation-Labs/Unit9_Build_Modern_Linux)

## Digging Deeper

1. Read other parts of this doc for more HPC understanding:  
<https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-223.ipd.pdf>
  1. What are the components on the drawing on page 3 of doc (pg. 11 in the web viewer)

## Reflection Questions

1. What questions do you still have about this week?

2. How are you going to use what you've learned in your current role?