

- `HOST_HOME_XFER` [dir name] – Identifies the host directory via which to transfer student artifacts, relative to the home directory. For students, this is where the zip files of their results end up. For instructors, this is where zip files should be gathered for assessment.
 - `LAB_MASTER_SEED` [seed] – The master seed string for this lab. It is combined with the student email address to create an instance seed that controls parameterization of individual student labs.
 - `REGISTRY` [registry] – The id of the Docker Hub registry that is to contain the lab images. This defaults to the registry value defined in the `labtainers.config` file.
 - `BASE_REGISTRY` [base_registry] – The id of the Docker Hub registry that contains the base image for the container. This defaults to the default registry per the `labtainer.config` file. See 9 for details on the use of this keyword.
 - `COLLECT_DOCS` [yes/no] – Optional directive to collect lab/docs content as part of student artifacts. These are then available to the instructor in the `labtainer_xfer/[lab]/docs` directory. Also see 4.6.
 - `CHECKWORK` [yes/no] – Optional directive to disable (set to “no”) ability of student to check their own work from the `labtainer-student` directory.
- `NETWORK` [network name] – One of these sections is required for each network within the lab. The name is used within the `start.config` file to refer to the network. It is suggested that this name NOT be used in lab guides since it is not visible to students⁷. Where possible, name networks with their subnet mask, e.g., `10.1.0.0/24`. In addition to providing a name for the network, the following values are defined for the `NETWORK`:
 - `MASK` [network address mask] – The network mask, e.g., `172.25.0.0/24`
 - `GATEWAY` [gateway address] – The IP address of the network gateway used by Docker to communicate with the host. Please note that to define a different network gateway for the component, you should use the `LAB_GATEWAY` parameter for containers. This `GATEWAY` field should not name the IP of any of your other components.
 - `MACVLAN_EXT` [N] – Optional, causes the Docker network driver to create and use a macvlan tied to the given Nth ethernet interface (in alphabetical order) that lacks an assigned IP address. The network device is expected to be on a “host-only” VM network. The VMM should disable the DHCP server on this network. The network adaptor itself needs to be placed in promiscuous mode on the Linux VM, e.g., using “`sudo ifconfig enp0s8 promisc.`” These types of interfaces can be used to communicate with external hosts, e.g., other VMs as described in 8.3
 - `MACVLAN` – Similar to `MACVALN_EXT`, except a macvlan will not be created unless the Labtainer lab is started as a multi-user lab as described in 12.
 - `IP_RANGE` [range] – Optional, allocates an ip range to the network, e.g., `192.168.1.4/30`
 - `CONTAINER` [container name] – One of these sections is required for each container in the lab. Default values for container sections are automatically created by the `new_lab_setup.py` script. In addition to naming the container, the following values are defined:

⁷You may note several Labtainers labs failed to heed this advise.