



NVIDIA DIGITS

Troubleshooting and Support

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Chapter 1. Overview Of DIGITS

DIGITS (the Deep Learning GPU Training System) is a webapp for training deep learning models. DIGITS currently supports the TensorFlow framework. DIGITS puts the power of deep learning into the hands of engineers and data scientists.

DIGITS is not a framework. DIGITS is a wrapper for TensorFlow; which provides a graphical web interface to those frameworks rather than dealing with them directly on the command-line.

DIGITS can be used to rapidly train highly accurate deep neural network (DNNs) for image classification, segmentation, object detection tasks, and more. DIGITS simplifies common deep learning tasks such as managing data, designing and training neural networks on multi-GPU systems, monitoring performance in real time with advanced visualizations, and selecting the best performing model from the results browser for deployment. DIGITS is completely interactive so that data scientists can focus on designing and training networks rather than programming and debugging.

DIGITS is available through multiple channels such as:

- ▶ GitHub download
- ▶ NVIDIA's Docker repository, `nvcr.io`

Chapter 2. Configuration

DIGITS uses environment variables for configuration.



Note: Prior to [#1091](#) (up to DIGITS 4.0), DIGITS used configuration files instead of environment variables.



Note: DIGITS is not designed to be run as an exposed external web service.

2.1. Environment variables

This table defines the environment variables DIGITS uses for configuration.

Variable	Example value	Description
DIGITS_JOBS_DIR	~/digits-jobs	Location where job files are stored. Default is \$DIGITS_ROOT/digits/jobs.
DIGITS_LOGFILE_FILENAME	~/digits.log	File for saving log messages. Default is \$DIGITS_ROOT/digits/digits.log.
DIGITS_LOGFILE_LEVEL	DEBUG	Minimum log message level to be saved (DEBUG/INFO/WARNING/ERROR/CRITICAL). Default is INFO.
DIGITS_SERVER_NAME	The Big One	The name of the server (accessible in the UI under "Info"). Default is the system hostname.
DIGITS_MODEL_STORE_URL	http://localhost/modelstore	A list of URL's, separated by comma. Default is the official NVIDIA store.
DIGITS_URL_PREFIX	/custom-prefix	A path to prepend before every URL. Sets the home-

Variable	Example value	Description
		page to be at " http://localhost/custom-prefix " instead of " http://localhost/ "

Chapter 3. Installation and Usage Issues

For questions involving the installation or usage of DIGITS see:

- ▶ Nvidia DIGITS Installation Guide
- ▶ Installing CUDA and the NVIDIA Driver for DIGITS
- ▶ Nvidia DIGITS Container Getting Started Guide
- ▶ Consult the User Group forum: <https://groups.google.com/forum/#!forum/digits-users>

3.1. Configuration

If you have another server running on port 80 already, you may need to reconfigure DIGITS to use a different port.

```
sudo dpkg-reconfigure digits
```

All other configuration is done with environment variables. See [Configuration.md](#) for detailed information about which variables you can change.

- ▶ Ubuntu 14.04
 - ▶ Edit `/etc/init/digits.conf`
 - ▶ Add/remove/edit lines that start with `env`
 - ▶ Restart with `sudo service digits restart`
- ▶ Ubuntu 16.04
 - ▶ Edit `/lib/systemd/system/digits.service`
 - ▶ Add/remove/edit lines that start with `Environment=` in the `[Service]` section
 - ▶ Restart with `sudo systemctl daemon-reload && sudo systemctl restart digits`

3.2. Driver installations

If you try to install a new driver while the DIGITS server is running, you'll get an error about CUDA being in use. Shut down the server before installing a driver, and then restart it afterwards.

▶ Ubuntu 14.04:

```
sudo service digits stop
# (install driver)
sudo service digits start
```

▶ Ubuntu 16.04:

```
sudo systemctl stop digits
# (install driver)
sudo systemctl start digits
```

3.3. Permissions

The DIGITS server runs as `www-data`, so keep in mind that prebuilt LMDB datasets used for generic models need to be readable by the `www-data` user. In particular, the entire chain of directories from `/` to your data must be readable by `www-data`.

3.4. Other

If you run into an issue not addressed here, try searching through the [GitHub issues](#) and/or the [user group](#).

Chapter 4. Bug and feature requests

To file a new issue go to: https://github.com/login?return_to=https%3A%2F%2Fgithub.com%2FNVIDIA%2FDIGITS%2Fissues%2Fnew

To contribute by opening a pull request: <https://help.github.com/articles/about-pull-requests/>



Note:

You will need to send a signed copy of the [Contributor License Agreement](#) to digits@nvidia.com before your change can be accepted.

Chapter 5. Support

For the latest Release Notes, see the DIGITS Release Notes Documentation website (<http://docs.nvidia.com/deeplearning/digits/digits-release-notes/index.html>).

For more information about DIGITS, see:

- ▶ DIGITS website (<https://developer.nvidia.com/digits>)
- ▶ DIGITS project (<https://github.com/NVIDIA/DIGITS/blob/digits-5.0/README.md>)
- ▶ GitHub documentation (<https://github.com/NVIDIA/nvidia-docker/wiki/DIGITS>)



Note: There may be slight variations between the NVIDIA-docker images and this image.

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