



# Installation Guide

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## Introduction

The DPL Development Container ( `dpl_dev` ) bundles several tools for compiling, controlling and debugging DPL programs.

Pulling the container image can be done using the following command:

```
docker pull nvcr.io/nvidia/doca/dpl_dev:1.0.1-doca2.10.0-host
```

A set of convenience scripts is provided together with `dpl_dev` , one script per tool.

Each script launches each respective tool, requiring fewer command line options to be specified.

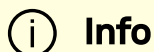
## Installing the launch scripts

The `/install.sh` script provided within the `dpl_dev` container copies the launch scripts to the current working directory.

Below is an example command of how it can be used to copy the launch scripts from within the container to a mounted directory of your choosing (specifically `/${PWD}` in this example).

```
docker run --rm -it -v ${PWD}:${PWD} -u $(id -u):$(id -g) -w  
${PWD} nvcr.io/nvidia/doca/dpl_dev:1.0.1-doca2.10.0-host  
/install.sh
```

Make sure the copied scripts have execute permission with:



```
chmod +x scripts/*.sh
```

The above command copies the following scripts to the local host file system:

- Tool launch scripts
  - `dplp4c.sh`
  - `dpl_admin.sh`
  - `p4runtime_sh.sh`
  - `dpl_nspect.sh`
  - `dpl_debugger.sh`
- Configuration script
  - `scripts_config.sh`
- General purpose script for internal use only
  - `scripts_utils.sh`

For a detailed explanation on each tool, see [DOCA Pipeline Language Developer Tool](#).

## Configuring launch scripts

For your convenience, the `scripts_config.sh` file can be used to avoid specifying commonly used arguments when executing the scripts.

By editing the following file you can avoid passing the `-i <DPL Dev image name:tag>` and `-a <DPL Runtime daemon address:port>` to the various tools.

```
#!/bin/bash

# This configuration file defines various arguments used by the launch scripts.
# These variables are optional, but defining them in advance simplifies the use of the launch scripts.

# Image name and tag that contains the development tools
# Example: nvcv.io/nvidia/doca/dpl_dev:<tag>
```

```
DEV_IMAGE=nvcr.io/nvidia/doca/dpl_dev:1.0.1-doca2.10.0-host
```

```
# IP where the DPL Runtime daemon (RTD) is running
```

```
# Example: 192.168.1.100
```

```
# DPL_RTD_IP=
```

```
# IP where the DPL RTD is running and the port for the P4 Runtime Server
```

```
# Example: ${DPL_RTD_IP}:9559
```

```
# P4RT_ADDRESS=${DPL_RTD_IP}:9559
```

```
# IP where the DPL RTD is running and the port for the DPL Admin
```

```
# Example: ${DPL_RTD_IP}:9600
```

```
# DPL_ADMIN_ADDRESS=${DPL_RTD_IP}:9600
```

```
# IP where the DPL RTD is running and the port for the DPL Nspect
```

```
# Example: ${DPL_RTD_IP}:9560
```

```
# DPL_NSPECT_ADDRESS=${DPL_RTD_IP}:9560
```

## Next steps

1. [Compiling DPL Applications](#) that you wish to examine using the developer tools.
2. [Loading DPL Applications](#) can now be done with the compilation outputs.
3. Use the [DOCA Pipeline Language Developer Tool](#) to further examine the DPL programs correct operation.

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