



NVIDIA DOCA FlexIO Build

User Guide

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Chapter 1. Introduction

The FlexIO Build tool is used to build and compile FlexIO device code into a static library.

Chapter 2. Description

The DOCA FlexIO driver exposes the API for managing and running code over the data path accelerator. The DPA is an embedded user-programmable processor in the NVIDIA® BlueField®-3 DPU.

Writing the FlexIO application requires compiling both host and device stubs into single binary file.

The FlexIO Build tool is a wrapper for the DPACC compiler to compile device code.

Refer to [NVIDIA DOCA DPA Subsystem Programming Guide](#) for more information.

Refer to [NVIDIA DOCA DPACC Compiler User Guide](#) for more information.

Chapter 3. Execution

```
build_flexio_device.sh <app-name> <source-file> <build-dir>
```

Please refer to section [Tool Flags](#) for more information.

For example:

```
build_flexio_device.sh l2_reflector_device /opt/mellanox/doca/applications/  
l2_reflector/device/l2_reflector_device.c /tmp/dpacc-output/
```

This command builds and compiles the `l2_reflector_device.a` static library which is then placed under `/tmp/dpacc-output`.

Chapter 4. Tool Flags

Flag	Description
<app-name>	Application name. This flag is important as it determines how the <code>flexio_app</code> struct is exposed. DPACC defines the following: <pre>struct flexio_app <app-name>;</pre> This is used from the host application.
<source-file>	DPA device source code. This code is cross-compiled and bundled in the output library.
<build-dir>	Directory where the library will be placed.

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