

Flash Bootloader Course

Agenda VectorAcademy

Delivery Format:	This Course is offered in Classroom, Remote or Blended Learning Format. In the case of Blended Learning the content will be learned via E-Learning in a period of two months and there will be one accompanying remote Q&A session per month.
Duration:	Classroom: 2 x 6hours Remote: 3 x 4hours Blended Learning: 16 hours (aprox. needed time for self-study)
Target Group:	ECU developers
Prerequisites:	Knowledge about software development for automotive systems
Goal:	Obtain an overview on the the basics of Flash Bootloaders and detailed information about Vector's Flash Bootloader product.

1. Introduction

- > General Purpose of a Flash Bootloader
- > Advantages of Flashing over Bus Systems

2. System Overview

- > System Overview
- > Simple Memory Layout

3. Basic FBL Procedure

- > System Overview
- > FBL in Use (without BM)
- > FBL in Use (with BM)
- > Download Sequence

4. Basic FBL Features

- > Flash Bootloader Architecture
- > Interrupt Handling
- > Boot Manager
- > Transition FBL <> Application
- > Forced Bootloader Startup
- > Flash Driver | Terms and Segmentation | Partitioning
- > Validation
- > Security Features

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5. Additional Features

- > Data Compression and Decompression
- > Pipelined Programming
- > Pipelined Verification
- > Bootloader Updater
- > Secure Boot