Importing Models into DS-5

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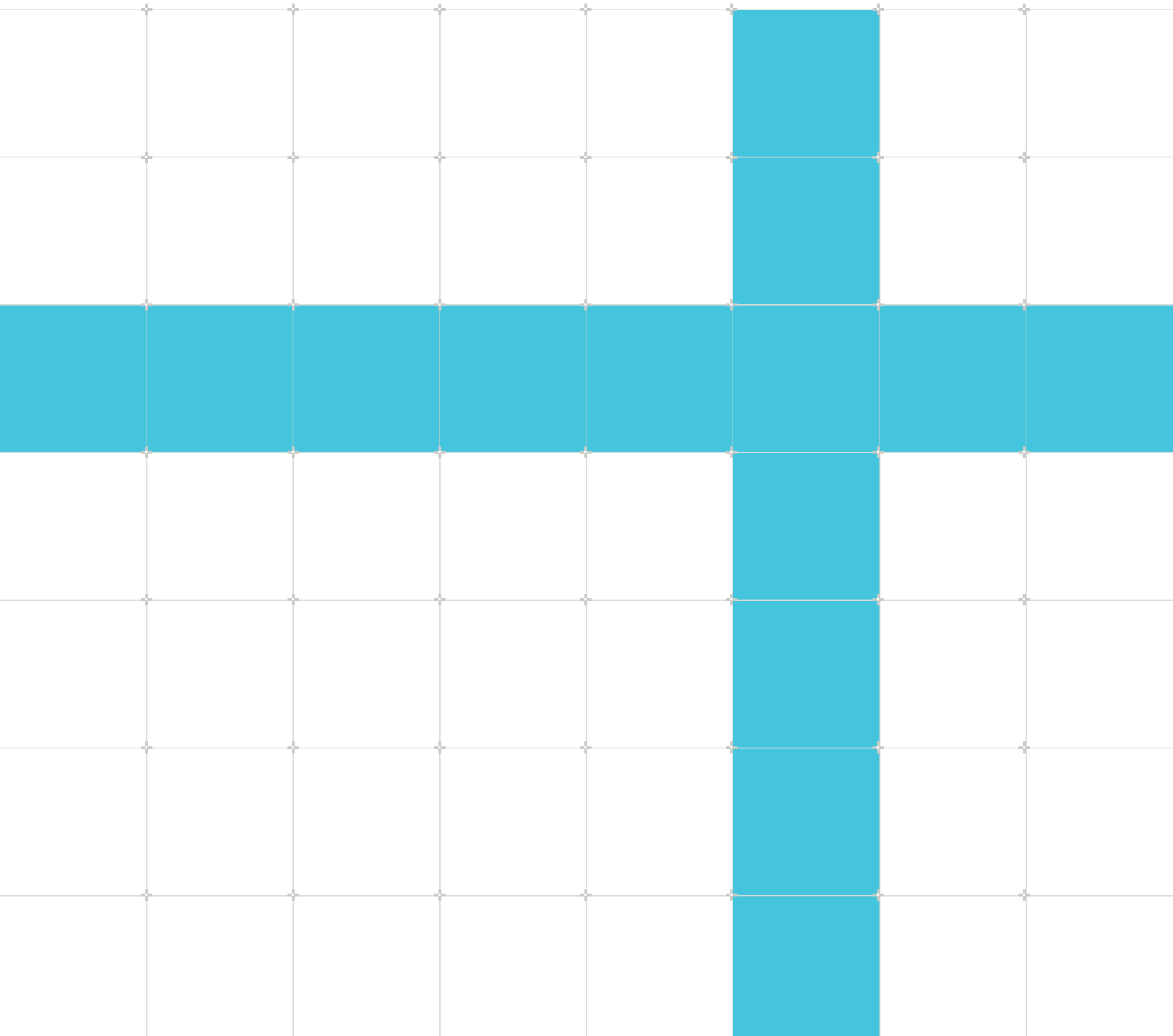

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Release information

Document history

Issue	Date	Confidentiality	Change
0100-01	11 May 2017	Non-Confidential	First release

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Contents

1. Overview

Learn how to add new Fixed Virtual Platforms to Arm DS-5 Development Studio.

Context

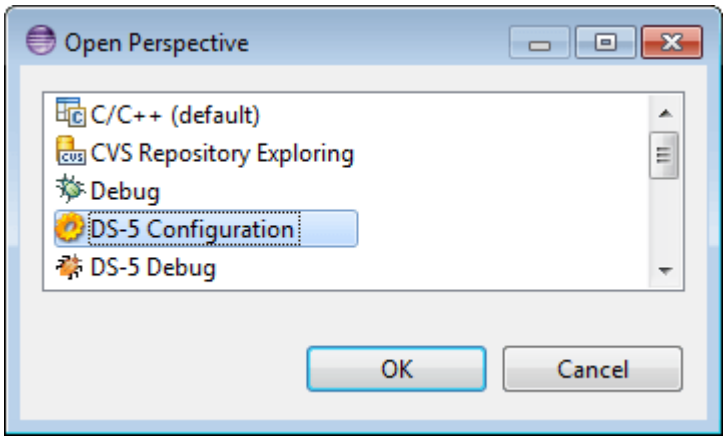
Working with Arm Fixed Virtual Platforms (FVPs) is a great way of cutting months from your project. Models give you a programmer's view of a complete Arm system, allowing you to test and debug software long before you have access to the Silicon. With the Models Platform Configuration Editor, it's easy to import, connect to and debug a model in DS-5.

2. Procedure

This chapter of this tutorial shows you how to import models into DS-5:

1. To open the DS-5 Configuration Perspective, select **Window** > **Perspective** > **Open Perspective** > **Other...** then select **DS-5 Configuration**.

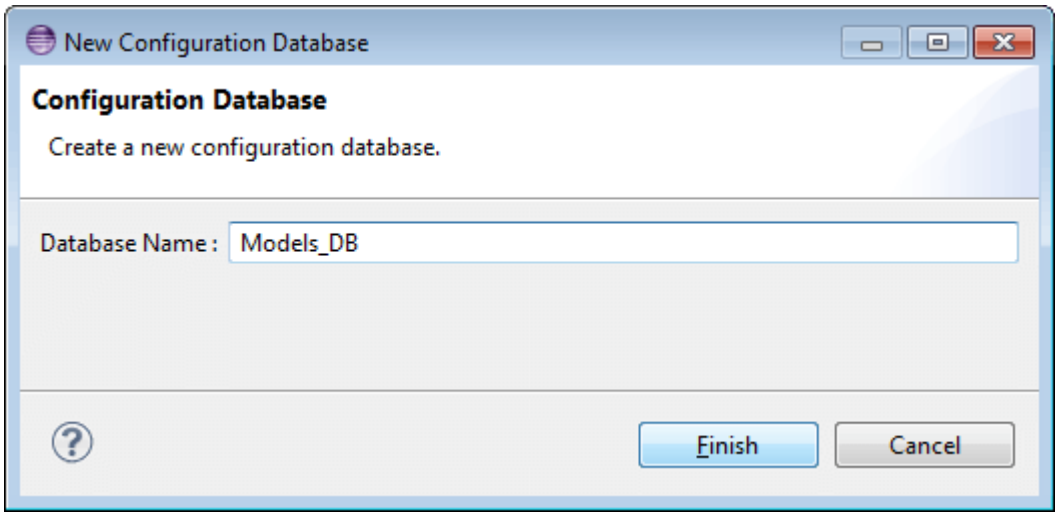
   Figure 2-1: Open perspective window options



2. Select **File** > **New** > **Configuration Database** and enter a name for your database.

   This creates a folder you can see in the **Project Explorer** view.

   Figure 2-2: New configuration window options



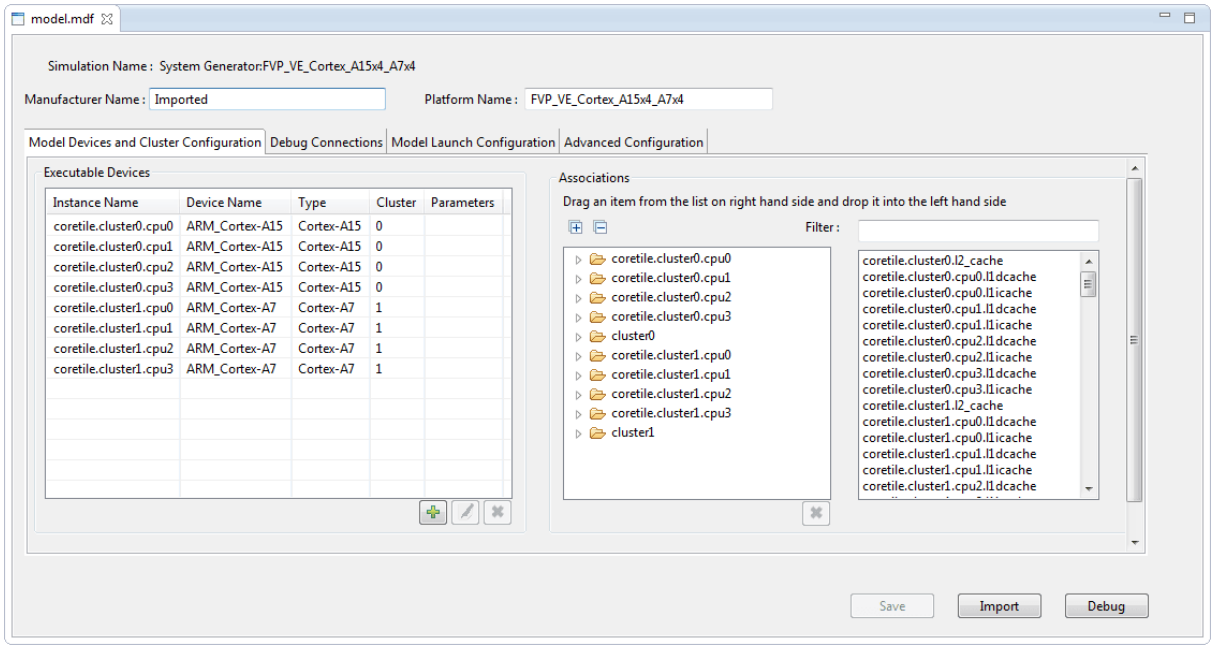
3. Right-click in the **Project Explorer** view and select **New** > **Model Configuration**. Choose the database to create the entry, and click **Next**.
4. Select **Launch and connect to specific model**, and then click **Next**. To browse to the folder where your model is located, click **File** . Select the model executable, for example `FVP_VE_Cortex-A15x4-A7x4.exe`, and then click **Finish**.

Note

You may find that any file dependencies that the model executable might have, such as .dll files need to be in the same folder as the model executable. You should consider this if you decide to copy your executable into the DS-5 /bin directory.

DS-5 launches the model for you and detect its configuration. This is presented as a view in DS-5 with the title **model.mdf**.

Figure 2-3: Options in the model.mdf file



5. To import your configuration, click **Import**.

   This creates a new entry in the DS-5 configuration database, which allows DS-5 to debug the model.

6. To debug your model configuration, click **Debug**.

   The **Debug Configurations** dialog loads and contains your imported model ready to debug.

3. Customize your configuration

You can customize your configuration with the following options:

Model Devices and Cluster Configuration Tab

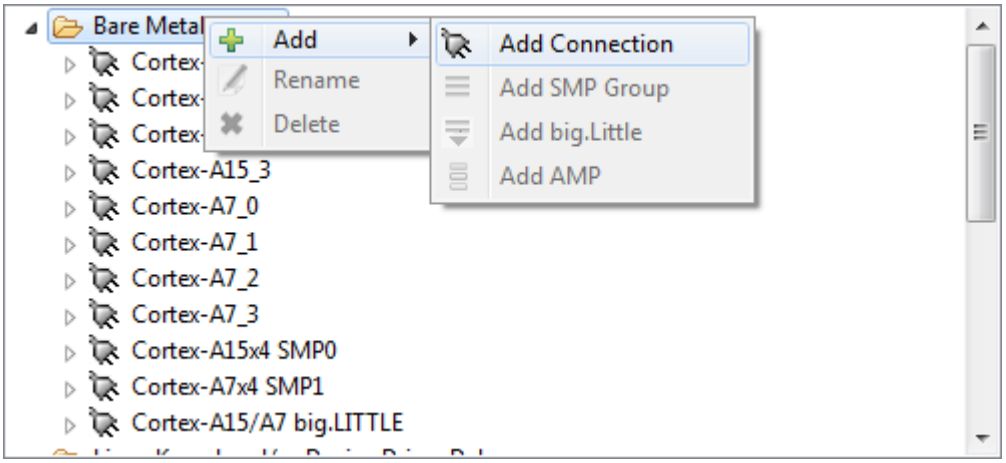
This is the default tab, which allows you to customize the core and cluster configuration, along with associations for peripherals such as flash, mouse and keyboard.

For each CPU, you can view and edit L1 instruction and data cache associations, as well as translation lookaside buffers. Likewise, you can do the same with the L2 cache for each cluster.

Debug Connections Tab

In this tab, you'll see a list of all the available debug connections. To create a new connection, right-click on the top level folder and then define whether it's big.LITTLE, SMP or AMP by right-clicking the **new connection**. To populate the connection, drag and drop cores or clusters from the list in the right hand panel.

Figure 3-1: Available debug connections



Model Launch Configuration

This tab allows you to pass the model launch parameters, which you would normally either add to a batch file or define in the **Debug Configurations** dialog.

Advanced Configuration

The final tab in the configuration enables you to generate a CADI or RDDI log when the model runs.

4. Related information

Here are some resources related to material in this guide:

- Resources
- Tutorials
- DS-5 documentation