Getting started with startKIT

Now you've got your startKIT it's time to get an application running on it and then start programming the board. The following steps explain quickly what to do. If you want more information, each step is explained in the following sections.

1. Connect your startKIT board to your computer using a micro-USB cable.

2. Download and install the xTIMEcomposer Community tools (13.0.0 or later).

3. Start xTIMEcomposer Studio and register the tools if prompted.

4. Click the **startKIT** option on the left menu of the Welcome page and then click the **startKIT Tutorial** under *Tutorials*.

   The startKIT Tutorial is loaded in the xTIMEcomposer Developer Column.

5. Follow the tutorial which shows you how to:

   ▶ import an application from the GitHub Community

   ▶ build the application and run it on your startKIT
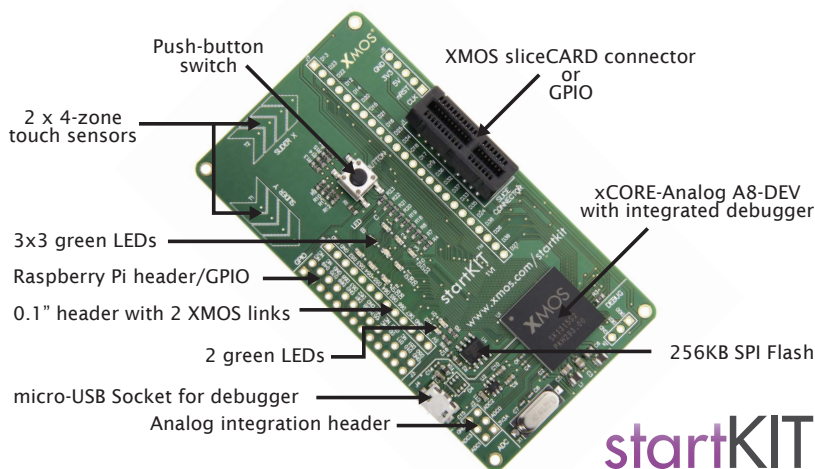
Figure 1:
startKIT
features

1 What do you need?

To use startKIT you need the following:

▶ **startKIT board**

▶ **micro-USB cable** - provides power to startKIT, and connects the kit to the tools so you can load images onto the multicore microcontroller and debug your applications

▶ **xTIMEcomposer** - the xCORE development tools that provide everything you need to program, debug, simulate and debug your applications; download free from http://www.xmos.com/support/downloads/xtimecomposer. Requires 13.0.0 or later.

▶ **XMOS password** - the password you used to register on the xmos.com website

▶ **Internet connection** - required to register the tools before you can use them

2 Let's get started

The following section explains in detail how to load a demo onto your startKIT.

2.1 Download and install the xTIMEcomposer tools

xTIMEcomposer provides everything you need for programming xCORE multicore microcontrollers. Develop all your I/O, DSP and application code in a single development environment based on the industry-standard Eclipse IDE.

The tools are free of charge to users registered on the xmos.com website. Versions are available for Windows, Mac OSX and Linux platforms.

startKIT requires version 13.0.0 or later.

2.2 Start xTIMEcomposer

The first time you start xTIMEcomposer you will be prompted for your XMOS registration details, so you need to be connected to the Internet. Once you've registered the tools you do not need to be connected to the Internet, although it is recommended in order to get the latest software components and documentation.
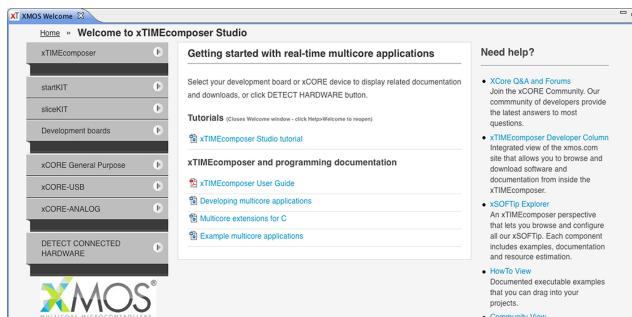

Figure 2:
xTIMEcomposer
password

2.3   Verify your startKIT board

The first time you start xTIMEcomposer, the Welcome screen is displayed. This page displays documentation for your development board and xTIMEcomposer.
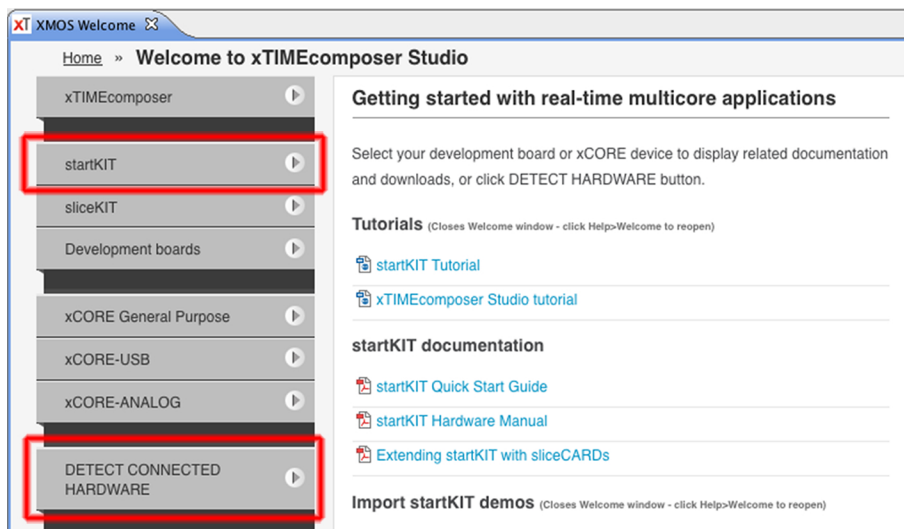

Figure 3:
xTIMEcomposer
Welcome
page

Connect the startKIT board to your host PC using a micro-USB cable, which provides power to the board.

Then click **DETECT CONNECTED HARDWARE** or the **startKIT** option on the Welcome screen.

Figure 4:
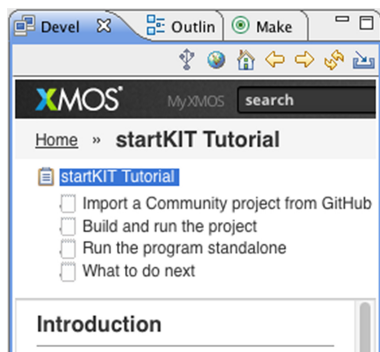xTIMEcomposer
startKIT page

The Welcome page shows resources related to startKIT including the startKIT Tutorial, documentation and software you can run on the board.

2.4   Follow the startKIT tutorial

Click the **startKIT Tutorial** under *Tutorials*.

The *Welcome* window closes and the tutorial is opened in the xTIMEcomposer *Developer Column*.

Figure 5:
xTIMEcomposer
Developer
Column

Follow the tutorial, which shows you how to:

▶ import a Community project from the GitHub community site

▶ build and run the project on your startKIT

3   What to do next

If you want to see what other people are doing with startKIT or events related to startKIT, go to the XMOS website:

▶ http://www.xmos.com/startkit

If your looking for help on writing applications for startKIT or want to share your ideas, join the XCore Community:

▶ http://www.xcore.com/

When your ready to start coding your own applications we recommend that you check out the following resources:

3.1   startKIT

▶ startKIT Hardware Manual[1]

▶ Extending startKIT with sliceCARDs[2]

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[1] http://xmos.com/published/startkit-hardware-manual
[2] http://xmos.com/published/extending-startkit-using-pcie-slot-and-slicecards

3.2   xTIMEcomposer Tools

▶ xTIMEcomposer User Guide[3]

▶ Programming real-time multicore applications[4]

▶ XMOS Multicore extensions for C[5]

▶ XMOS programming examples[6]

▶ xTIMEcomposer Tutorial (xTIMEcomposer -> Help -> Tutorials)

▶ xTIMEcomposer Developer Column

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[3] http://xmos.com/published/xtimecomposer-user-guide
[4] http://xmos.com/published/programming-real-time-multicore-applications
[5] http://xmos.com/published/xmos-multicore-extensions-c
[6] http://xmos.com/published/example-multicore-applications