Getting Started Guide

IAR KickStart Kit™ for Renesas RX62N

This guide briefly describes how to get started using IAR Embedded Workbench® to run an example application on the Renesas YRDKRX62N evaluation board (RDK).

Software installation

1 Insert the IAR KickStart Kit CD. The installation program starts automatically.

2 Click **COPY DOCUMENTS** to copy all the kit documentation to your computer, by default under `\Program Files\IAR Systems\IAR KickStart Kit\`.

3 On **SOFTWARE** page, select the IAR Embedded Workbench for Renesas RX installation of your choice. We recommend the Kickstart edition which has no time limit.

Figure 1 - Choose software

4 You will be directed to an online Product Registration page to get your license number and key, which will be delivered to you via e-mail within a few minutes. After this you will be able to install the software and updates. Note that it may take several minutes for the installation files to unpack.

5 In the end of IAR Embedded Workbench installation, the `Emulator USB Driver Installation Wizard` will be prompt, just click **Next** and **Finish** to install them.

Hardware configuration

6 Connect your computer to the J-Link USB connector on the YRDKRX62N evaluation board using the supplied USB cable. The USB drivers for the J-Link debugger should be already installed automatically with the IAR Embedded Workbench.

Note: If you get some message that the driver has not been installed properly, please navigate to \IAR Systems\Embedded Workbench Kickstart x.x\rx\drivers\JLink\ and start the `InstDrivers` application.

For more details about the evaluation board, please read the YRDKRX62N user manual.

Running example applications

To take the full advantage of the example application, you should have some working knowledge of IAR Embedded Workbench IDE. For a quick introduction, see the **GETTING STARTED** and the **TUTORIALS** in the IAR Information Center (Figure 2).

7 From the **Start** menu, start the IAR Embedded Workbench IDE by choosing **All Programs>IAR Systems>IAR Embedded Workbench for Renesas RX x.xx Kickstart>IAR Embedded Workbench**.

8 Click on **EXAMPLE PROJECTS** in IAR Information Center for Renesas RX.

9 Choose **RDKRX62N** and open project `RDKRX62N board examples` (click [icon] icon beside).
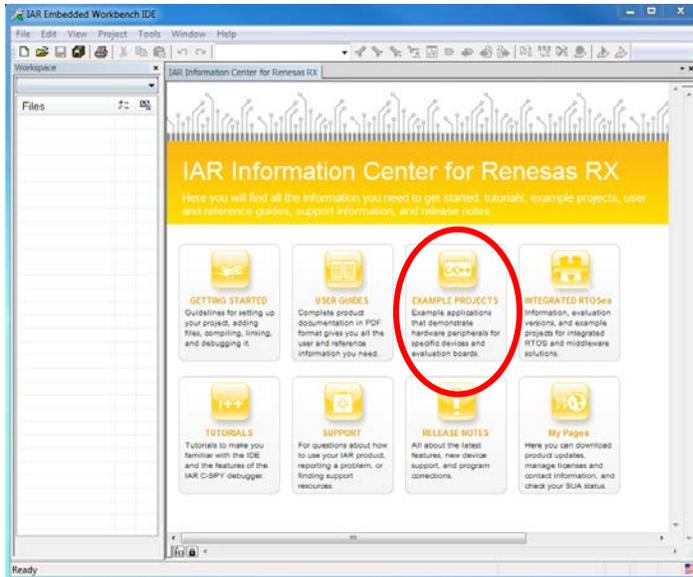
Figure 2 - IAR Information Center

10 Click **Choose** to select a default destination folder to save a copy of this project for testing, so that the original project will not be updated for any changes you made during testing.

11 Read the `Example description`.

12 Choose **Project>Make** or click the **Make** button [icon] on the toolbar, the project will be compiled and linked.
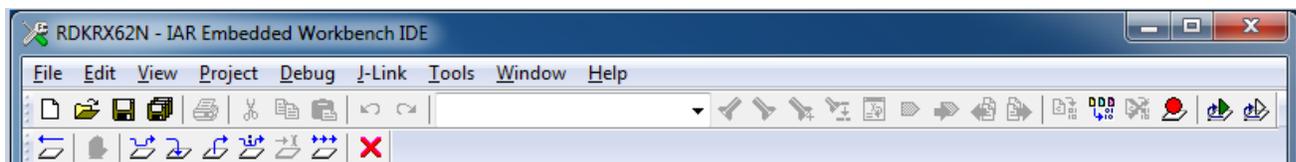
Figure 3 - IAR Embedded Workbench IDE- Menu and Toolbar

13 Choose **Project>Download and Debug** or click the **Download and Debug** button [icon] on the toolbar.

    a. If asked to update the emulator firmware, follow the prompts to complete.

    b. Use the default settings in the hardware setup dialog box that is displayed. Click **OK** TWICE. This will cause your program to be downloaded to the evaluation board.

14 The source file including the `main` function is now displayed in the editor window. The operation details can be found in the source file header.

15 Click **Debug>Go** or click the **Go** button ![go button] on the toolbar to start the application.

16 To stop C-SPY, choose **Debug**>**Break** or click the **Break** button ![break button] on the toolbar.

17 To explore the C-SPY debugging features or change the J-Link settings, choose the **View** and **J-Link** menu (see Figure 3).

18 To exit C-SPY, choose **Debug>Stop Debugging** or click the **Stop Debugging** button ![stop button] on the toolbar.

You can now try other example projects included. Right-click on any other Debug project, click on "Set as Active" and then click **Make** button.

Running RTOS examples

19 Open a RTOS demo project, for example Express Logic's ThreadX Demo from **Example Projects ->RDKRX62N.**

20 Select the corresponding RTOS plug-ins from **Project->Options…->Debugger** category, then click **OK**.
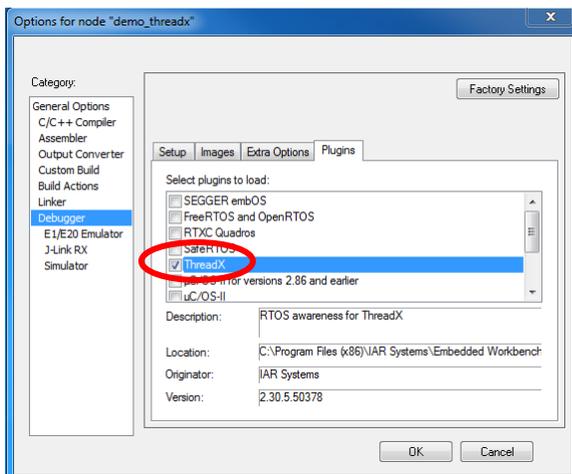
Figure 4 - RTOS plug-ins in C-SPY

21 Repeat the step 11-17 as above (let the application run for a while before clicking ![x button] button).

22 Use the RTOS menu and toolbar, integrated in the IAR Embedded Workbech IDE, to explore the RTOS debugging features.
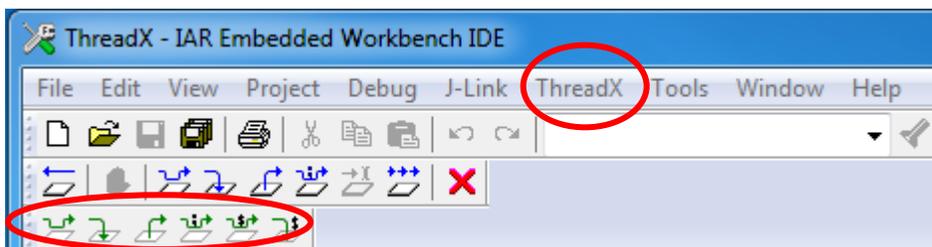
Figure 5 – RTOS menu and toolbar

For more RTOS BSPs, please check **INTEGRATED RTOSes** from IAR Information Center. You probably need to download the BSPs from RTOS partner's website.

To learn more about the IAR Embedded Workbench, RDK evaluation board and get the latest updates, please visit **www.iar.com/resources**, **www.iar.com/kit_updates** and **www.renesas.com/yrdkrx62n.**

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