Platform Builder OS Design Template

(Windows Embedded CE 6.0)

The following serves as a guide for the Summit supplied OS Design Template. This template is a starting point for the smallest functional Windows Embedded CE run-time image that supports a Summit Data Communications wireless radio.

Note: The OS Design Template can be downloaded from the Summit Software Center: http://www.summitdata.com/software_director.php.

When bringing up new hardware (like a WLAN or BT radio), having a minimal OS Design (image) prepared for use is highly recommended to ensure the process proceeds smoothly and quickly. Once the new hardware is fully functional and tested, you may then add in ***all*** of the required OS components.

An OS Design created with this template will have a minimal set of components and the resulting OS Image should be able to support the Summit radio. As you attempt to bring the Summit radio up on your platform (and eventually integrate the Summit driver into your OS Design), there is much less overhead, or chance of conflict, with this minimalistic approach.

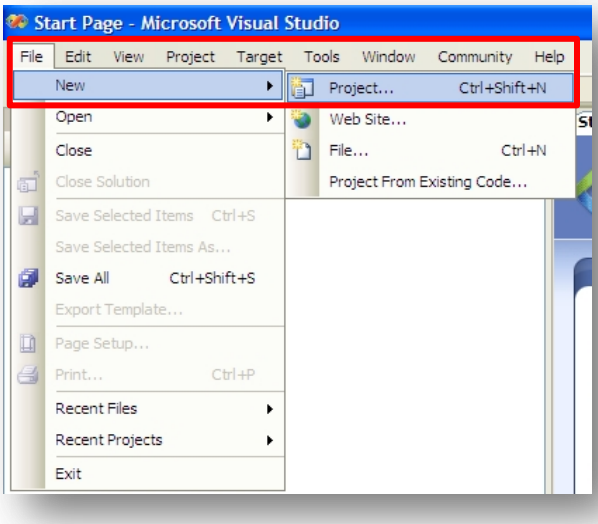
Using the OS Design Template to Create a New OS Design

On the development system, with Platform Builder installed, follow these steps:

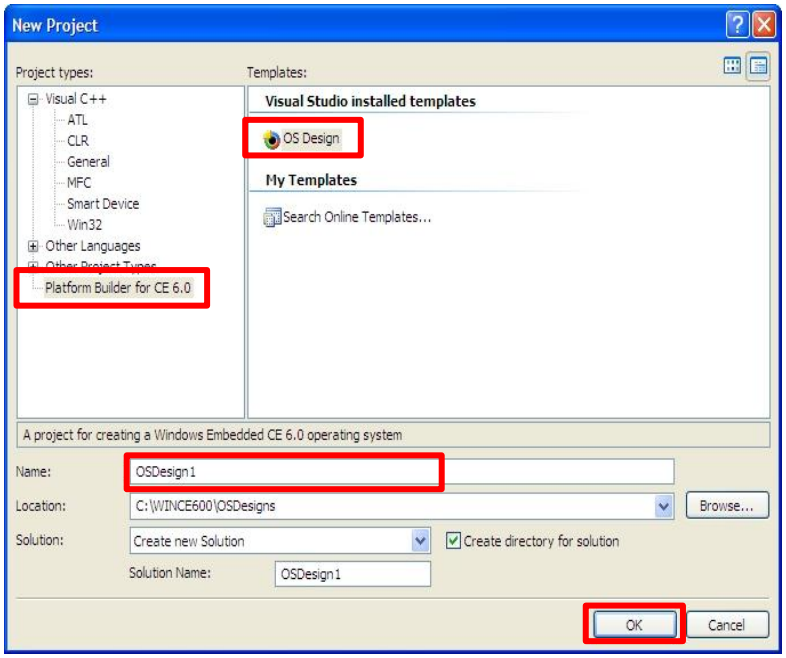
1. Copy the *summit_device.pbcxml* file to **C:\WINCE600\PUBLIC\CEBASE\CATALOG**.
2. Start a *new* **VS2005** session.

Note: You must launch a new VS2005 session ***after*** placing the PBCXML file. The new template will not be available in current VS2005 sessions.

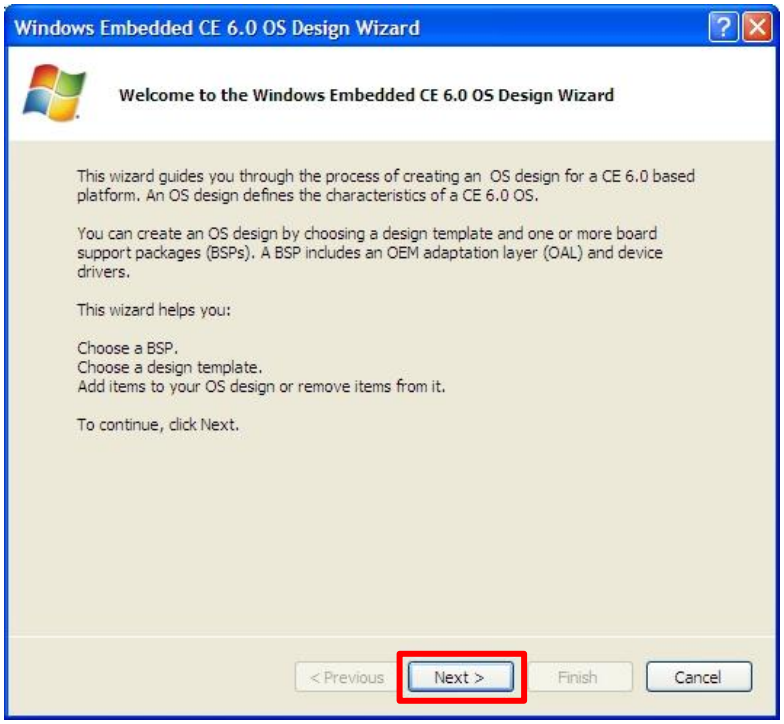
3. Select **File > New > Project**.



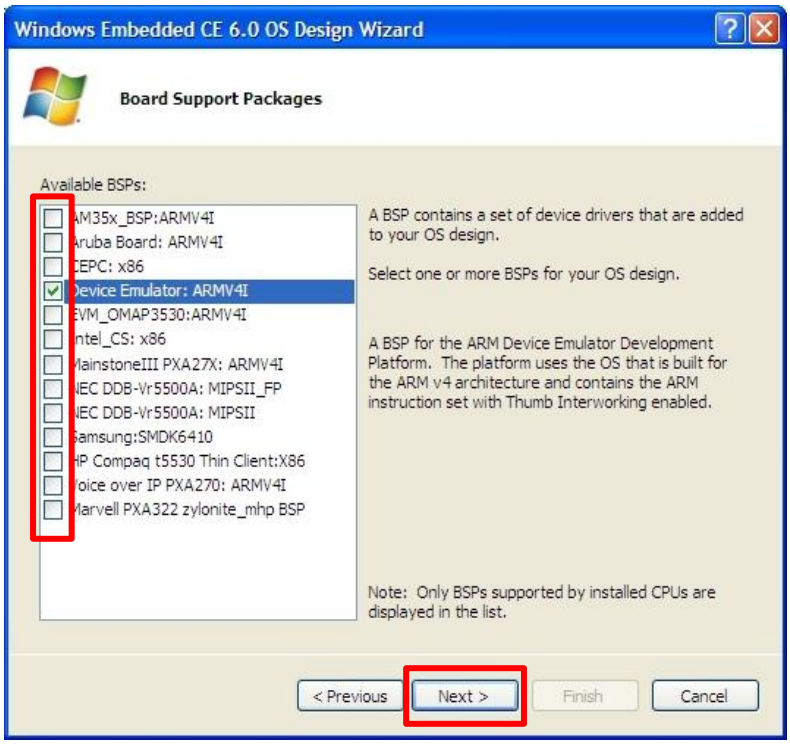
4. Select
   Other Project Types >
   Platform Builder for CE 6.0.
5. Select **OS Design**.
6. Enter the desired OS Design Name.
7. Click **OK**.



8. Click **Next**.



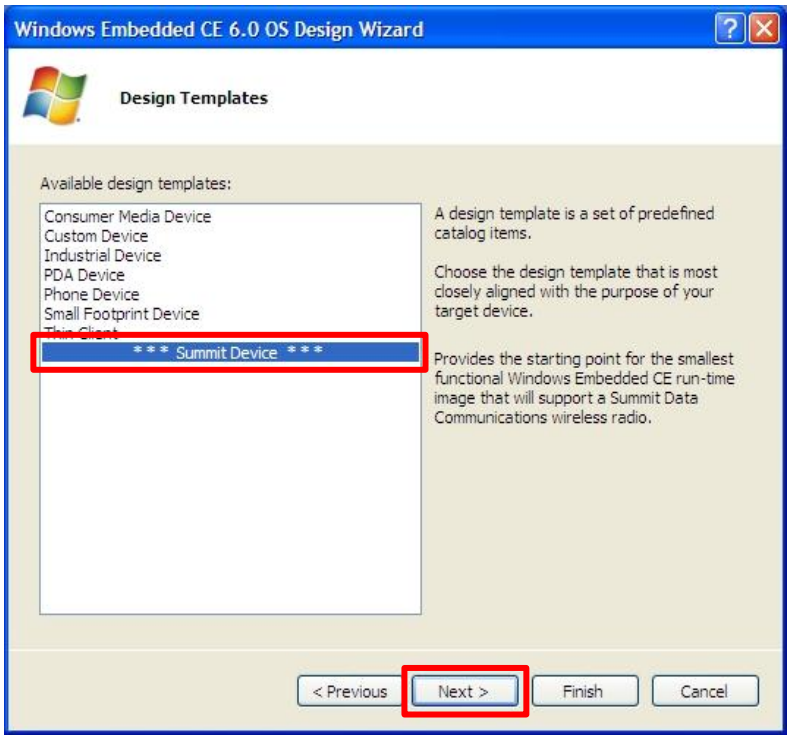
9. Select one or more applicable BSPs for your OS design.
10. Click **Next**.



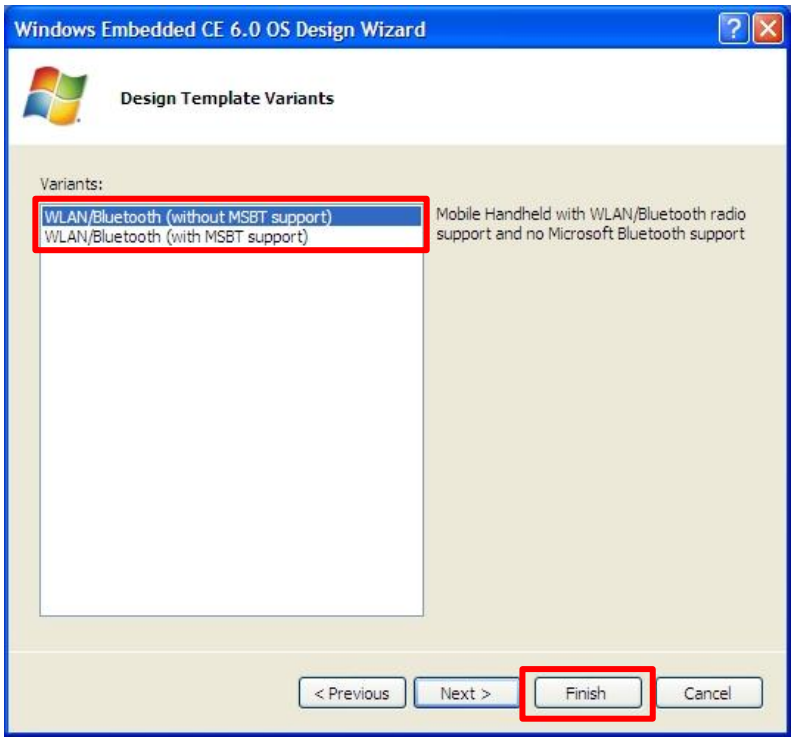
11. Select **Summit Device** from the list of available design templates.

    Note: If ******Summit Device****** is not displayed, close VS2005 and redo the previous steps, beginning with Step 1. Pay attention to the note following Step 1.

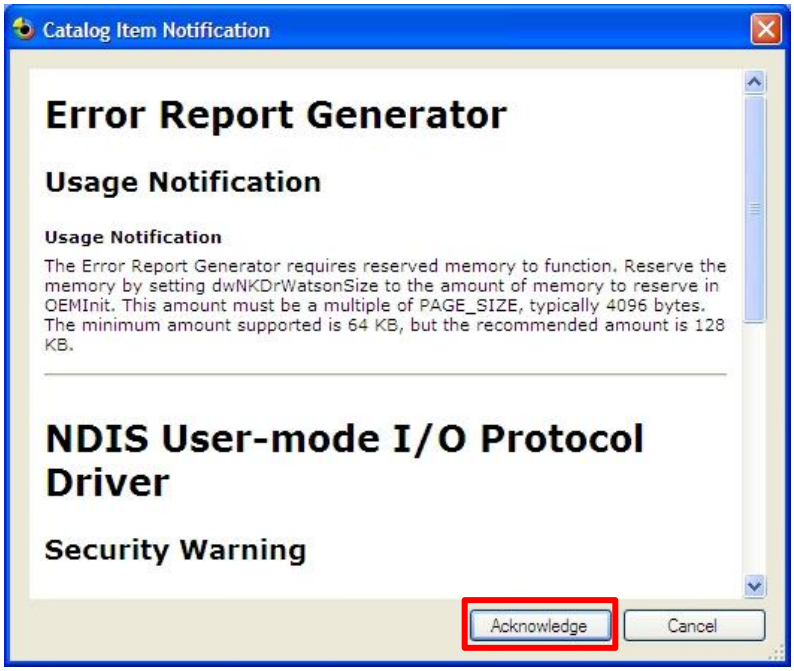
12. Click **Next**.



13. Select the applicable Variant: WLAN/Bluetooth without or WLAN/Bluetooth with MSBT (Microsoft Bluetooth) support.
14. Click **Finish**.



15. On the Catalog Item Notification window, click **Acknowledge**.



Build and Test

At this point, the new OS Design has been successfully created from the Summit Device OS Design Template.

Before your first build, be sure to review the OS Design's Catalog Items *and* the BSP's Catalog Items and configuration to ensure that the necessary hardware interface support is present for the radio that is being integrated with your platform. For example:

- SDIO radios require an SD Bus Driver and SD Host Controller Driver
- CF radios require a CF or PC Card Host Driver

The template is set up for SDIO radios (not CF radios) so if you are integrating one of our CF radios, additional work will be required in these areas.

IMPORTANT: We highly recommend that you ensure there are no other radio drivers being built into this OS Image while attempting to bring the Summit radio up on your platform. It is not uncommon for a BSP to include one or more radio drivers. These radio drivers can cause conflicts with the Summit radio driver.

The BSP's radio drivers are typically excluded by editing the BSP's BAT file; for example, changing:

`set BSP_WIFI_ATHEROS=1` to `set BSP_WIFI_ATHEROS=`

Also be sure there are no Third Party radio drivers being built into this OS Image while attempting to bring the Summit radio up on your platform. These radio drivers may cause conflicts with the Summit radio driver.

When finished, build the OS Design and load and test the resulting image on your target platform.

Conclusion

The recommended "first step" in radio integration is to download and install the latest Summit radio driver on the device by using the appropriate CAB file for your platform which is available at: http://www.summitdatacom.com/software_download.php

The OS Design Template (on which this document is based) is also available from the link above.

Once the Summit radio is working on your platform, we can further assist you on how to integrate the Summit driver with your OS Image via an OS Design subproject, addition to your BSP, or by creating a "Third Party" Catalog Item.