RapidSE Desktop ESP Release Notes

v1.6.1

New Features, Bug Fixes and Known Issues

July 7th, 2010

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Revision History

Version	Date	Modified By	Comments
1	**July 7, 2010**	Alireza Motamed	

1 Introduction

1.1 Overview

This document outlines new features, bug fixes and known issues associated with **RapidSE Desktop ESP v1.6.1**.

2 New Features and Functionality

2.1 Descriptors

The **Descriptors** sub-tab, located under the **ZigBee Network** tab, provides facilities for requesting the **Descriptor** of a given end device.

The **Device Descriptor** group box contains a list for monitoring incoming **Device Descriptor Responses**. A **Device Descriptor Response** contains the detailed addressing and configuration information of the given device, as well as lists of the device's supported **Server** and **Client Clusters**. Highlighting a device descriptor in the list displays lists of the device's supported **Server** and **Client Clusters** in the **Device Descriptor Server and Client Cluster IDs** group box, with each supported cluster represented by its two-byte **Cluster ID**. Clicking **Clear** removes all entries from the **Device Descriptor Responses** list.

The **Descriptor Request** group box provides facilities for requesting the descriptor of a device with a given **Node ID** or **EUI64** address. If the **Enable** checkbox next to the **Node ID** entry field is set, it indicates that the **Node ID** will be used when making the descriptor request; otherwise, the **EUI64** address is used, with the **Node ID** set to the default value of **0xFFFF**. Clicking **Request** issues the **Device Descriptor Request** to the **Module**.

2.2 ZCL General

The **ZCL General** tab has been added to the application and contains functionality for querying and writing to attributes of discovered devices on the network, as well as tools for prompting an end device to **Identify** itself.

2.2.1 Attribute Read and Write

The **Attributes** sub-tab, located under the **ZCL General** tab, provides facilities for querying and writing to the **Attributes** of end devices, including those of the **Module** itself.

The **Device Address & Cluster** group box provides facilities for specifying the **Node ID** and **EUI64** address pair of the target end device, as well as the **Endpoint** and the **Cluster ID** on which the desired **Attribute** resides.

Once a device has been selected, the **Attribute ID** to be queried is entered. Clicking **Request Attribute** executes the query. If the **Status** field indicates that the queried attribute is supported, the **Attribute Value** and **ZCL Data Type** of the attribute will appear in their respective entry fields. Otherwise, the **Status** field will indicate that the attribute is not supported by the **Target Device**.

Concurrently, once a device has been selected, a given **Attribute ID** to be written to may be entered. Currently, the **Attribute Value** may be entered as a numeric string, with provisions for more complex data entry forthcoming. The selected **Data Type** should correspond to that of the **Attribute ID** being written to. Clicking **Write Attribute** writes the given attribute to the **Target Device**. The **Status** field indicates whether the write attempt was successful.

2.2.2 Identify

The **Identify** sub-tab, located under the **ZCL General** tab, provides facilities for prompting a target end device to **Identify** itself.

The **Device Address** group box provides facilities for specifying the specifying the **Node ID** and **EUI64** address pair of the target end device, as well as the **Duration** in seconds of the identify action.

Clicking **Identify** executes the **Identify** command.

2.3 Upload Application

The **Upload Application** interface, accessed via the **Upload Application** menu item under the **Tools** menu, provides facilities for flashing a connected **MMB Device** (**USB Stick**, **Development Board** or serially connected **Module**) with the **RapidSE ESP v1.6.x** application firmware.

Though featured in previous versions, the **Upload Application v1.6** interface offers multiple download options based for standard and custom configurations of **RapidSE ESP**.

Prior to downloading a given configuration and flashing a connected device, the **Current Application** radio group is utilized to select the type of application the connected device is currently running; that is, either **RapidSE Devices** or **RapidSE ESP**. This is because these applications recognize distinct **Serial Bootload** frames.

The **Upload Application** tab provides facilities for selecting a standard configuration of **RapidSE ESP** to download. Clicking **Retrieve Builds** queries the download server for available build numbers of the **RapidSE Devices v1.6** application and displays them in the corresponding dropdown menu. The ESP radio groups, consisting of **Communications** (**UART** or **SPI**), **Device Type** (**Router** or **End Device**) and **Security** (**Non-ECC** or **ECC**) determine the firmware configuration selected for download.

The **Upload Custom Application** tab provides facilities for downloading a custom build of **RapidSE ESP** or **Devices** to download. An **8-character alphanumeric Download Code**, provided to the customer by **MMB Research**, is entered in the **Download Code** entry field to retrieve the custom build.

Clicking **Begin Upload** downloads the specified **RapidSE ESP** or **Devices** firmware image from the download server and then uploads the application to the connected **MMB Device**. Clicking **OK** exits the **Upload Application** interface.

3 Bugs Fixed

There were no bugs fixed in this release.

4 Known Issues

There are no outstanding known issues associated with this release.