**Steps to take care when creating a New device - “PEXXXXX-R0x” folder in DeviceFiles Folder (14 STEPS)**

Please find the things to take care when a new device requirement arrives:

**1) Confirm whether the new device is an updation of existing devices or not.** (This will help you which existing plugin/ device file to reuse or whether you want to create a new plugin).

2**) Get the data sheet of the device in excel format along with the pdf. (Ex of how excel data sheet looks can be located at:**("………...muratastudio\Docs\Client Shared Docs\R2D2 - [PE24103]\16 Bit Addressing\R2D2\_Register\_Map\_latest.xlsx")

**3) Convert the excel file in to .csv file by saving it in .csv.**

**4) Use the CsvToXml.sln in Github to convert the .csv file to device file in .xml format.**

**("...muratastudio\Tools\CsvToXml\CsvToXml.sln").**

(Modify the **CsvToXml.sln** code for each device to handle the .csv so that new xml can be generated )

5) Duplicate any of the existing devices and paste that in to Device File folder with the new device name. (Eg: "…….\muratastudio\DeviceFiles\PEXXXXX-R01").

6) Update all the sections in PEXXXXX-R01.xml based on the given information from client.

**7) <FileInformation> section:**

Update the <FileInformation> in the newly created device folder PEXXXXX-R01 with the date and version. (Version should be 1 for newly creating device and it should be incremented based on updation and date should be the date in which we have started developing this version).

**8) <DeviceId> section:**

Update the <DeviceId> section in the newly created device folder PEXXXXX-R01 with Name, Version, Base Name and I2CBaseName.

1. **<Name>** - Name of the newly creating device , ie PEXXXX (**Dont mention R01)**
2. **<Version> -** Version of the device.
3. **<BaseName> -** Name of the plugin which is being used for loading the GUI.
4. <I2CBaseName> - This is optional. This tag is used if the device contains both plmbus and i2c registers. And this tag is specific for i2c 16 bit registers

9) **<UI> section:**

Update the <UI> section of the device based on the requirement. (Check with client about whether the device have any configuration selector. )

Check whether the GUI elements in Device Tab is loaded from the device file or from the VS code.

* If it is loaded from device file, you have to describe the elements in <UI> section.
* If it is loaded from VS code, you have to describe the elements in correspondig plugin code.

<ParentControl> - This is the place where we will keep the elements which is common in all the configurations.

<ConfigXPanels> - If the device contain configuration selector, GUI has to be updated based on that selected configuration. This is the place where we keep the elements based on the selected configuration, where X is the number of the configuration..

For eg, if you have 2 configurations in configuration selector, then you will have <Config1Panels> and <Config2Panels> in the .xml.

<Config1Panels> - This is used for loading the GUI when Config 1 is selected.

<Config2Panels> - This is used for loading the GUI when Config 2 is selected.

10) **<Registers> section:**

Copy and replace the section of **<Registers>** in the newly created device folder PEXXXXX-R01 from the PEXXXXX-R01.xml file created with the help of **CsvToXml** project**.**

**11) <I2CRegisters> section:**

This is optional. This tag is used if the device contains both PMBus and i2c registers. And this tag is specific for i2c 16 bit registers. Similar to <Registers> section, Copy and replace the section of **<I2CRegisters>** in the newly created device folder PEXXXXX-R01 from the PEXXXXX-R01.xml file created with the help of **CsvToXml** project**.**

12) Once the device file PEXXXXX-R01.xml is updated with all the relevant information, save it and close. PEXXXXX-R01.xml is ready

13) Another step is to update the Application.xml in PEXXXXX-R01 folder. For updating that file, open it and update the <Plugins> sections.

1. Add the relevant plugins in the <Plugins> section with <Plugin> tag (No ‘s’ is present in the tag of <Plugin>
2. If the device contains 2 plugins, 2 <Plugin> attribute will be there, normally for all the device the <Plugin> attribute will have only 2 , in which one is for device plugin and other is for Registers tab of GUI , but for PE24103, as it contain both 8 bit pmbus and 16 bit i2c registers, it has 3 <Plugin> attributes.

14 ) Once the modifications are done in Application.xml in PEXXXXX-R01 folder , save and close it.

15) Once all the changes are done, convert the folder in to .adz file with the help of DeviceFileCreator by following the steps (What to do after device file is modified.docx present at location : "…..\muratastudio\Docs\KT Guides\What to do after device file is modified.docx" )