

# Quick start guide

## Custom Recipe - iX Developer script module

### SER0005 - Editing Recipes via DataGrid



## 1 Function and area of use

This document explains how to enable editing of customer recipe in runtime mode, for X2 series HMI devices and iX PC RT (iX runtime) utilizing a Microsoft DataGrid control instead of placing an AnalogNumeric control for every single recipe parameter Tag.

## 2 About this document

This quick start document should not be considered as a complete manual. It is an aid to be able to startup a normal application quickly and easily.

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Use the following hardware, software, drivers and utilities in order to obtain a stable application:

### **In this document we have used following software and hardware**

- iX Developer 2.40 SP4 / SP5
- X2 series devices and iX PC RT (iX runtime)

### **For further information refer to**

- iX Developer Reference Manual (MAxx831)
- iX Developer User's Guide (MAxx832)
- [Beijer Electronics knowledge database, HelpOnline](#)

This document and other quick start documents can be obtained from our homepage. Please use the address [support.europe@beijerelectronics.com](mailto:support.europe@beijerelectronics.com) for feedback.

### 3 Table of Contents

- 1 Function and area of use.....2
- 2 About this document.....2
- 3 Table of Contents.....3
- 4 Editing customer recipe in runtime.....4
- 5 Adding the CustomRecipe to the iX application .....5
  - 5.1 Add the DataGrid Control in iX Developer .....5
  - 5.2 Import the script module and the example screen .....6
  - 5.3 Import the Tags .....7
- 6 Description of script module .....8
  - 6.1 StorageScripts.....8
- 7 Appendix .....9
  - 7.1 Troubleshooting.....9
- 8 About Beijer Electronics ..... 10
  - 8.1 Contact us ..... 10
  - Global offices and distributors ..... 10

## 4 Editing customer recipe in runtime

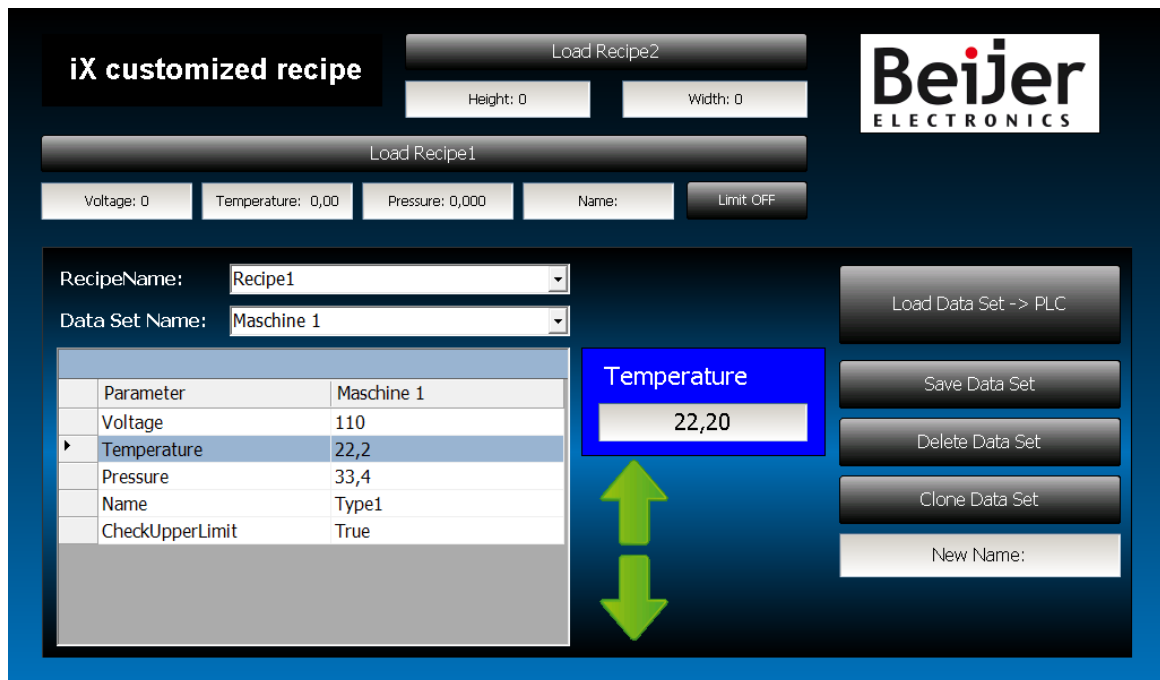
The script module and attached example screen uses the DataGrid control of Microsoft .NET Framework \*\* to allow editing of customer recipe in runtime mode.

Can be adapted for any number of items in the table, and includes:

- Load Data Set to PLC
- Save Data Set
- Delete Data Set
- Clone Data Set

This example works well for X2 series devices and iX PC RT.

Please follow below guidelines how to install into your application.



\*\* The .NET Framework is an application development platform from Microsoft that provides many services and class libraries for application development. Because your computer is using Windows operating system the .NET Framework is most likely already installed. Though, when installing an application that requires the .NET Framework, the application's setup program may install a specific version of the .NET Framework. In order to work with script modules and 3 party controls you need knowledge about the .NET Framework or its operation, but for the most part .NET Framework is completely transparent to the user.

## 5 Adding the CustomRecipe to the iX application

### Implementation

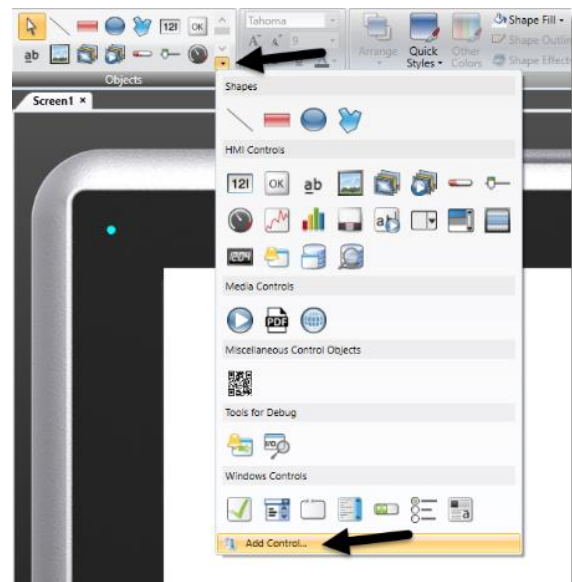
1. Start to add the DataGrid Control to an empty iX Developer project. \*
  - Save and close this temp project.
2. Import the script module (StorageScript) to your present iX application.
  - Open your iX application (or make a working copy) and import.
3. Import the screen, see example project (iX\_CustomRecipe).
4. Import/Overwrite the Tags from Tags.xls.
5. Adapt the screen and the script module to your needs.
6. Optionally import both recipes.
7. Run the application.

\* Note! The DataGrid seems to be visually in the example project - but the component isn't. If you would not start to install the DataGrid into iX Developer before opening the example project including this object, you will get build errors.

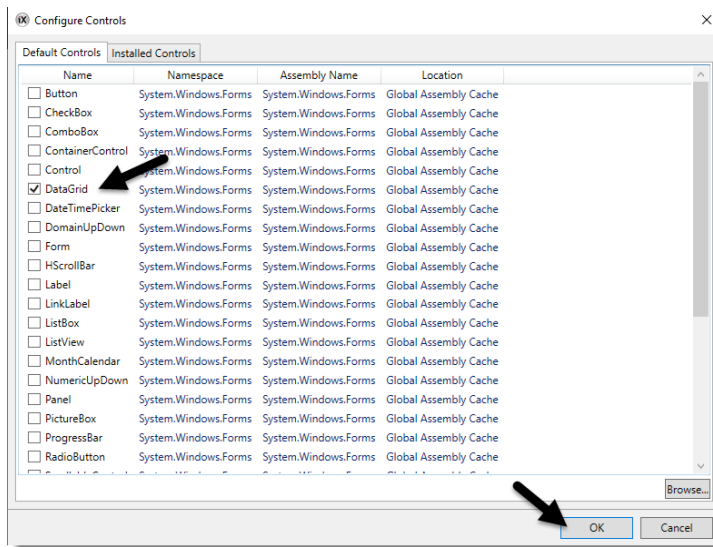
### 5.1 Add the DataGrid Control in iX Developer

The DataGrid control, of Microsoft .NET Framework \*\* and System.Windows.Forms namespace, need to be added to the iX Toolbox of iX Developer, follow these steps:

1. Unpack the enclosed example ZIP-file to a temporary folder.
2. Open the Objects menu and select Add Control.



- Browse the DataGrid control and tick the checkbox, OK.



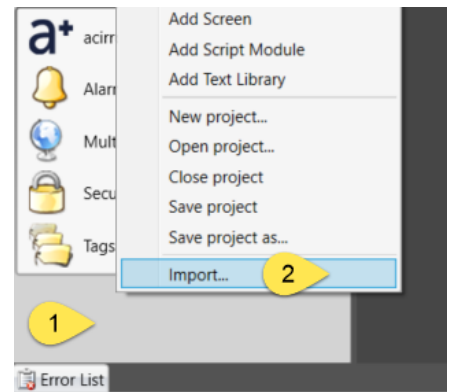
## 5.2 Import the script module and the example screen

If you want to import this script module in iX Developer you need both the StorageScripts.neo and StorageScripts.Script.cs. Browse the example to find it.

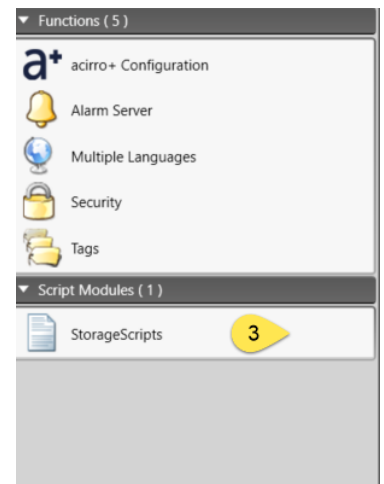
Then selects the .neo file and the import takes both the \*.neo and the \*.Script.cs file.

Follow the steps to add the enclosed script module to your iX project:

- Unpack the enclosed example ZIP-file to a temporary folder.
- Start iX Developer and load your project.
- In the Project Explorer, right-click in the lower left corner (1. in the picture)
- In the list, select Import... (2. in the picture)

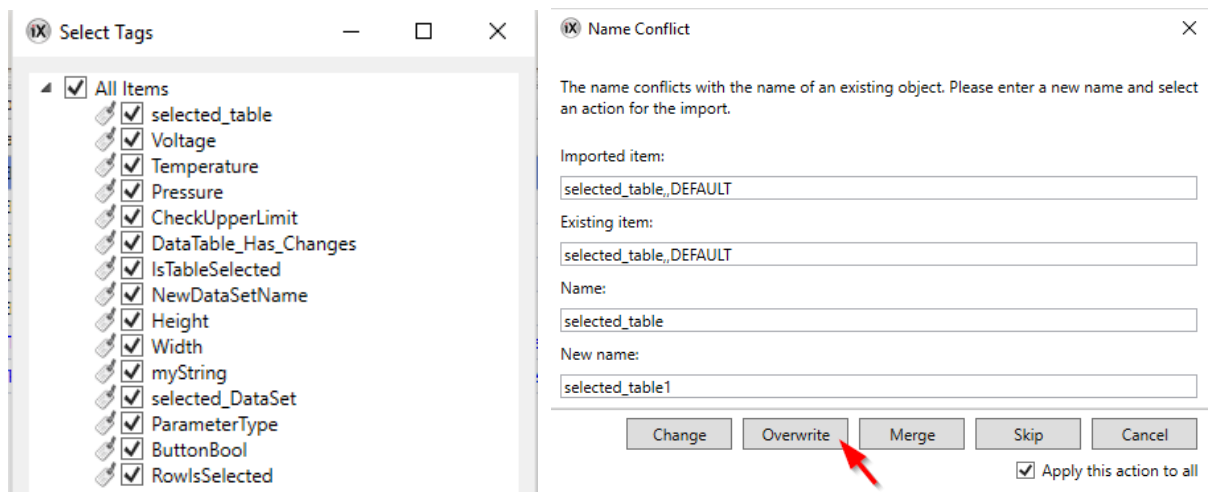
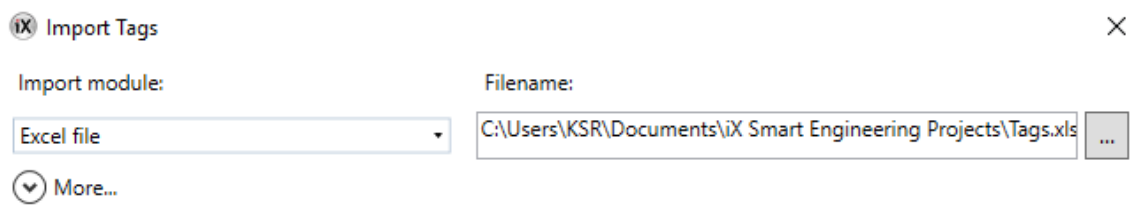
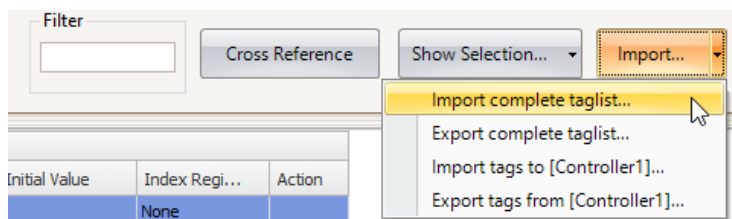


- Navigate to the temporary folder, where you unpacked the ZIP-file and select StorageScripts.neo, click [Open].
- Select RecipeEditor.neoxaml, click [Open].
- Answer Yes to the following questions.
- Done!
  - If everything went as planned, you'll see that a script module has been added (3. in the picture)



### 5.3 Import the Tags

1. Inside your project goto to the Tags editor and select “Import”.
2. Selct type “Excel file” inside the Import module.
3. Navigate to the temporary folder, where you unpacked the ZIP-file and select Tags.xls, click [Open].
4. Select all Tags.
5. If a “Name conflict” dialog appears, select “apply this action to all and “Overwrite” already existing Tags.
6. Done!



## 6 Description of script module

### 6.1 StorageScripts

The **StorageScripts** provides the iX Storage API to access the iX SQLite Database.

The most important methods of the script module are:

- GetDefaultStorage – basic access to the iX database
- GetDataTableForTable – to read out a “Runtime Recipe Title - e.g.

	Runtime Recipe Title	CheckUpperLimit	Name	Pressure	Temperature	Voltage
>	Maschine 1	<input checked="" type="checkbox"/>	Type1	33,4	22,2	110

- GetAllDataTables – to read out all available DataTables from the Database
- DeleteDataSet – to delete a DataSet
- InsertRowsIntoDataTable – to add a DataSet
- Update – to update changes of the DataGrid to the DataTable
- GetRecipeFieldNames – to read out all existing DataSets of a recipe



## 7 Appendix

### 7.1 Troubleshooting

If you are facing build errors when opening the example project, the root-cause is most probably that you haven't installed the Microsoft DataGrid control to your iX Developer before opening the example.

To get rid of the build errors install the DataGrid like described in 5.1, add a DataGrid control anywhere to your project, save the project and delete the recently added DataGrid control.

## 8 About Beijer Electronics

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