Quick start guide

Power BI template for analysing process data

SER0027 – Basic analysis of the process data export from acirro+

Beijer
E L E C T R O N I C S

1 Function and area of use

This document explains the process for how to easily view the process data exported from acirro+ using Power BI.

2 About this document

This quick start document should not be considered as a complete manual. It is an aid to be able to start analysing process data from exported csv files from acirro+.

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

In this document we have used the following software
- Power BI Desktop
- acirro+, https://acirroplus.com

For further information refer to
- acirro+ Getting Started PIEN353 (available at Help Online)
- Beijer Electronics knowledge database, Help Online

This document and other quick start documents can be obtained from our homepage. Please use the address *support.europe@beijerelectronics.com* for feedback.

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4 Power BI Template for analysing process data from acirro+

The following chapter describes important procedures and settings needed for a well-functioning process.

4.1 Installation of Power BI Desktop

Go to https://powerbi.microsoft.com/desktop/ and download the proper version of Power BI Desktop application that suits your language preferences. The instructions below are referring the English version of the application.

After download, open up the installation file and follow the instructions for installing Power BI Desktop.

4.2 Export process data files from acirro+

Make sure to have your devices set up properly in acirro+ to collect process data for them before going through this chapter.

Note: There is a file named *ExportDataFolderExample.zip* included in this package. It contains example data from two devices. If you want to use this file just to try out what the Power BI report looks like you can proceed directly to step 5 below.

1. Select the **Devices** tab from the top menu, find the device you want to export data for in the list, and click **Export process data** in the context menu.

2. Select for which time period that data should be fetched, either by typing in start and end date, or by selecting in the calendar.

3. Press the Export button. A new row containing information about the export appears in the Download Files list. When the export is ready for download it will get status Ready and a download icon will be enabled.

4. Press Download to download the zip file. The filename will contain the name of the device. Special characters in the filename will be replaced with underscore and if the filename is too long it will be shortened.

5. Create a folder on your local computer where you want to store all exported data for the Power BI report. This folder will be referred to *ExportDataFolder* below.

6. Unzip the zip file to a sub folder of *ExportDataFolder*. Keep the suggested name of the folder which will be the same as the name of the zip file except for the extension name. It will contain one process data file in csv format per day and one metadata file with information about namespace names and cloud tag names.

7. Whenever you want to export more process data for the same device or for other devices, just complete the steps above again.

8. The raw process data is now available in the csv files and can be imported Power BI.

Example: If you have exported data for Device1 two times and for Device2 two times, the folder structure should look like this on your local computer:

ExportDataFolder
> Device1-20210201-20210228-exported20210301142732
> Device1-20210301-20210331-exported20210401142031
> Device2-20210201-20210228-exported20210301142837
> Device2-20210301-20210331-exported20210401142135

Note! It is important to keep the exact name of the sub folders, otherwise the report will fail on finding the device names!

4.3 Import process data files in Power BI

1. Double-click on the template file for acirro+ import process data *(*.pbit)* to open it up in Power BI.

2. Type in the absolute path to the *ExportDataFolder* where the sub folders with the unzipped files are located. Ensure that the length of the absolute path is shorter than 248 characters, otherwise the import will fail.

3. If time should be expressed in local time instead of UTC, type in how many hours before or after UTC time that is wanted.
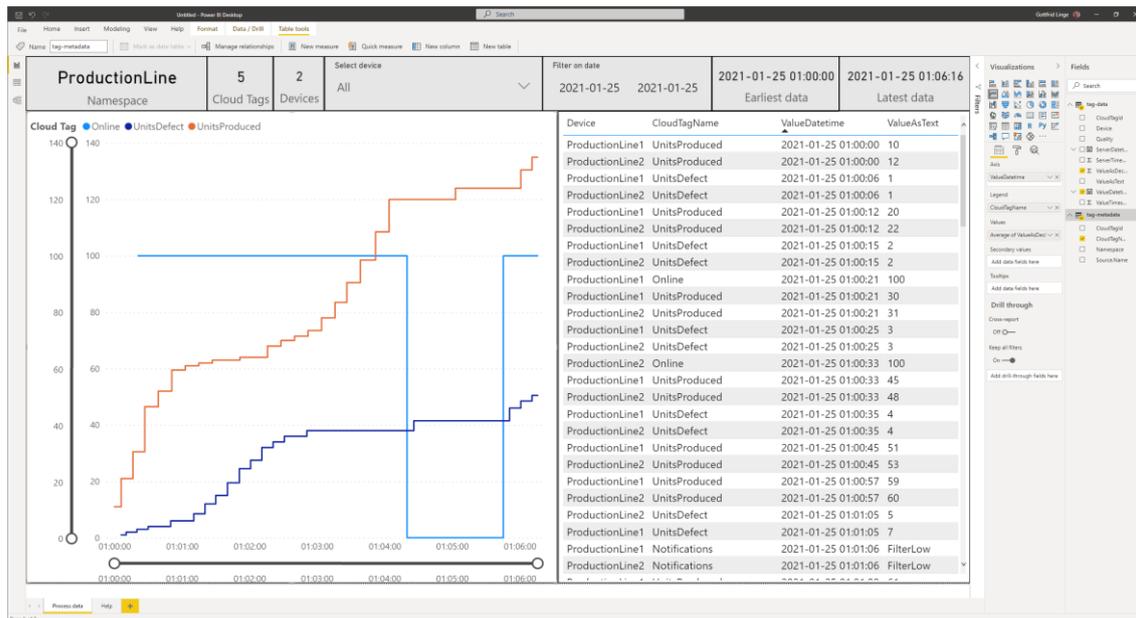

4. Press *Load*. If there is a lot of data, it might take some time to import.

5. In the Process data tab, the line chart should now visualize the historical process data, and there should be a table on the side to view the data in table format.

Example of what it can look like in Power BI after import of process data files from acirro+

Select which devices to view data for in the dropdown for "Select device" and select a specific timespan, either by changing the time interval in the chart or by changing it in the dropdown "Filter on Date".

The report created in Power BI can be reused if more data files are downloaded and unzipped to sub folders.

Please note that this template is prepared for decimal values and the chart is drawing lines between the value points, which might not reflect the real-world values correctly. If multiple devices are selected using the same cloud tags, the average for the cloud tag on all devices will be calculated for the chart. Any such setting can be changed within Power BI to fulfill your needs. The document can then be saved as a report for the specific data in the folder selected, or as a new template with your changes by selecting *Power BI template files* as type when saving.

5 About Beijer Electronics

Beijer Electronics is a multinational, cross-industry innovator that connects people and technologies to optimize processes for business-critical applications. Our offer includes operator communication, automation solutions, digitalization, display solutions and support. As experts in user-friendly software, hardware

and services for the Industrial Internet of Things, we empower you to meet your challenges through leading-edge solutions.

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