

Using LabView to Collect and Export PSI5 Data

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Using LabView to Collect and Export PSI5 Data

Using LabView to Collect and Export PSI5 Data into CSV

This example will help you understand the basics of collecting data from the PSI5-Simulyzer, storing the collected data and finally convert it into a CSV-File.

To check for errors, we start our logging (**StartLogging**) with setting a path for our logging file and some default logging parameters.

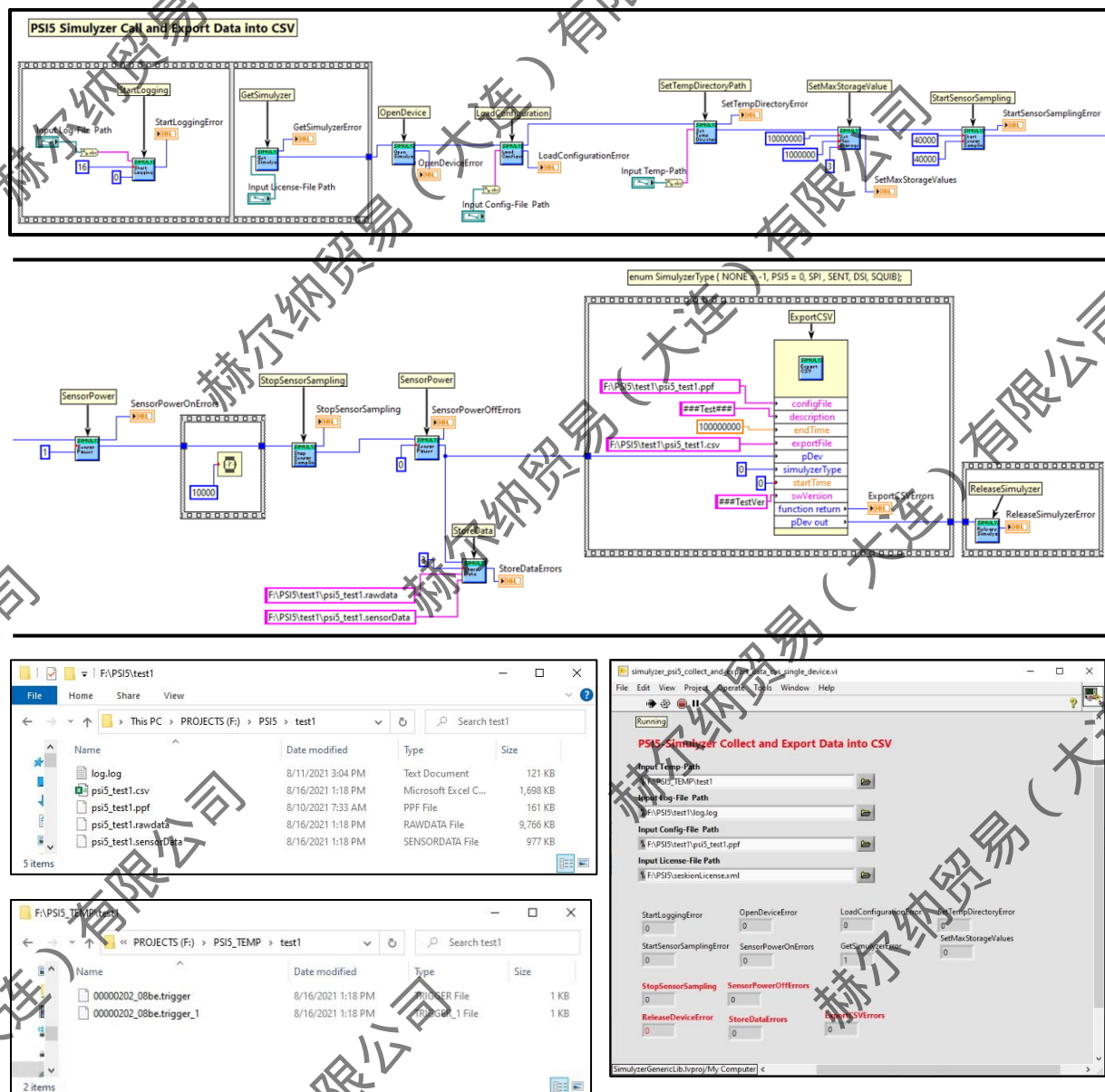
Then we try to get a device handle for the PSI5-Simulyzer device we want to communicate with (**GetSimulyzer**) – we only have one device connected so we don't have to give an Index Number – and open it (**OpenDevice**).

We load our configuration data (**LoadConfiguration**), choose a folder for our temporary data (**SetTempDirectoryPath**) and define the maximum size of the storage value for your collected measure data (**SetMaxStorageValue**).

Now we start with the sensor sampling (**StartSensorSampling**), switch on the sensor power (**SensorPower**) and wait a specific time to collect our measure data. With the end of the waiting time, we stop our sensor sampling (**StopSensorSampling**), switch off the sensor power (**SensorPower**) and start with moving the temporarily stored data into a location on disc (**StoreData**) and export the temporarily stored data into a CSV-File (**ExportCSV**).

Finally, we release the PSI5-Simulyzer device (**ReleaseSimulyzer**).

For more information about the PSI5-Simulyzer API, please check the documentation located in the API-Directory of your installed PSI5-Simulyzer Software.



The image displays a LabView block diagram and three screenshots illustrating the data collection and export process.

Block Diagram: The diagram shows the sequence of operations: **StartLogging** (with file path and parameters), **GetSimulyzer** (with license file path), **OpenDevice**, **LoadConfiguration** (with config file path), **SetTempDirectoryPath**, **SetMaxStorageValue**, **StartSensorSampling**, **SensorPower**, **StopSensorSampling**, **SensorPowerOffErrors**, **StoreData**, **ExportCSV** (with file path, config file, and export file), and **ReleaseSimulyzer**. Error handling is implemented throughout the process.

Screenshots:

- File Explorer (F:\PSI5\test1):** Shows the directory structure with files: log.log, psi5_test1.csv, psi5_test1.ppf, psi5_test1.rawdata, and psi5_test1.sensorData.
- File Explorer (F:\PSI5_TEMP\test1):** Shows the temporary storage directory with files: 00000202_08be.trigger and 00000202_08be.trigger_1.
- Simulyzer GUI:** A window titled "simulyzer_psi5_collect_and_export_data_for_single_device.vi" showing the "PSI5-Simulyzer Collect and Export Data into CSV" interface. It includes input fields for Temp Path, Log File Path, Config File Path, and License File Path, and a status area for errors.

Using LabView to Collect and Export PSI5 Data

Using LabView to Collect and Export PSI5 Data into CSV and TDMS

This example will help you understand the basics of collecting data from the PSI5-Simulyzer, storing the collected data and finally convert it into a TDMS-File.

To check for errors, we start our logging (**StartLogging**) with setting a path for our logging file and some default logging parameters.

Then we try to get a device handle for the PSI5-Simulyzer device we want to communicate with (**GetSimulyzer**) – we only have one device connected so we don't have to give an Index Number – and open it (**OpenDevice**).

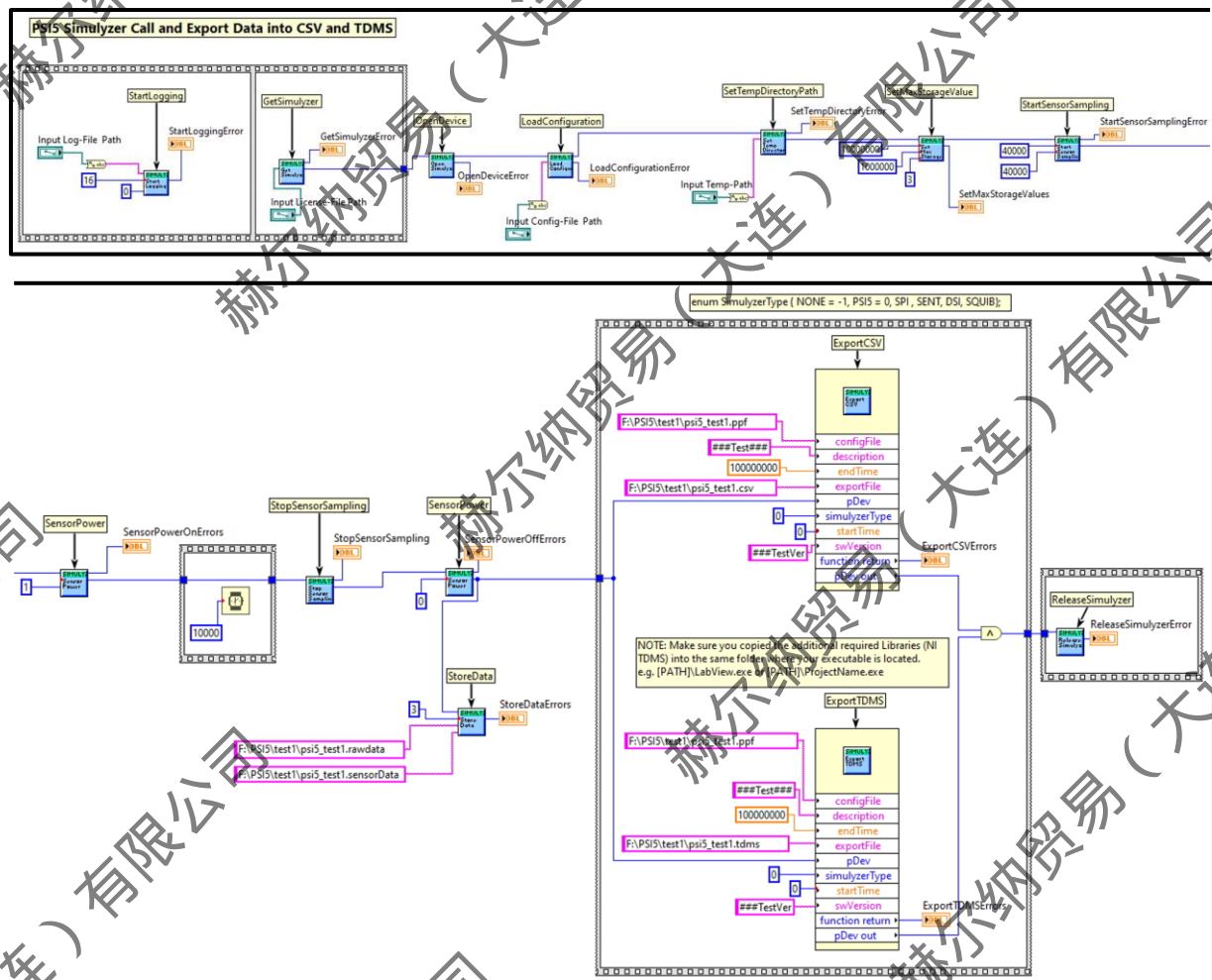
We load our configuration data (**LoadConfiguration**) choose a folder for our temporary data (**SetTempDirectoryPath**) and define the maximum size of the storage value for your collected measure data (**SetMaxStorageValue**).

Now we start with the sensor sampling (**StartSensorSampling**), switch on the sensor power (**SensorPower**) and wait a specific time to collect our measure data. With the end of the waiting time, we stop our sensor sampling (**StopSensorSampling**), switch off the sensor power (**SensorPower**) and start with moving the temporarily stored data into a location on disc (**StoreData**) and export the temporarily stored data into a CSV-File (**ExportCSV**) and TDM-File (**ExportTDMS**).

Finally, we release the PSI5-Simulyzer device (**ReleaseSimulyzer**).

NOTE: For using our PSI5-Simulyzer library to get TDMS-Data please copy the additional required libraries into the folder where your executable is located. E.g. [PATH]\LabView.exe or [PATH]\YourProjectName.exe The libraries must be copied into the [PATH]

For more information about the PSI5-Simulyzer API, please check the documentation located in the API-Directory of your installed PSI5-Simulyzer Software.



Using LabView to Collect and Export PS15 Data

