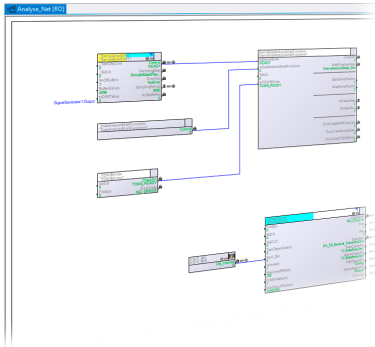


# DataAnalysis



The DataAnalysis package provides functions for recording and evaluating data. Recordings can be made, data exported and evaluated with numerous mathematical functions, such as “Fast Fourier Transformation” for example.

In addition, the package contains the Add-Ons DataAnalyzer and DataLogger for graphically displaying and evaluating measurement data.

## FEATURES

- Recording measurement data
- Mathematical functions for analysis of the recorded data
- Storage of measurement data in NI-TDMS file format
- Starting recordings for the LASAL CLASS DataAnalyzer
- Graphic display of measurement data
- Data evaluation via the cursor
- Starting or stopping recording with triggers

## SOFTWARE VERSIONS

Design environment	LASAL CLASS 2, LASAL SCREEN
Operating system	RTOS, Salamander

## SYSTEM REQUIREMENTS

Performance Index	A > B > C > D > E				
Visualization Memory Requirements (Application Demo)					
Code Size [KB]	282				
User Heap [KB]	43				
LSE Project Size [KB]	0				
SRAM [bytes]	188				

## COMPONENTS

### Library DataAnalysis

- Contains all classes of the package for importing or updating existing applications

### Add-On

- \_DataAnalyzer
- DataLogger

### Application Demo

- Shows the use of package classes on an example

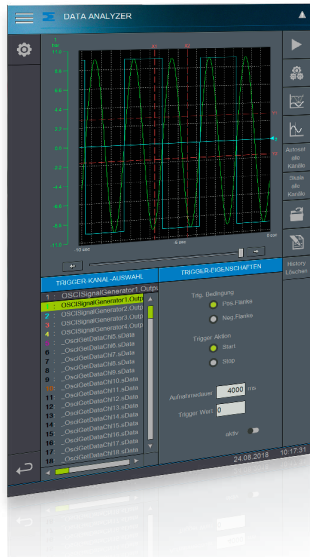
### Documentation

- All class documentation, as well as user and program manual where required

# DataAnalyzer

The DataAnalyzer Add-On may be used for recording and graphically displaying data and metrics of all types. Additionally the recorded data can be exported in different formats for further processing and evaluation.

The Add-On is based on a 2-CPU solution. This Add-On contains the program elements for the LASAL CLASS project, as well as the LASAL SCREEN projects for multiple resolutions.



## FEATURES

- Recording and graphic display of data
- Export data in CSV or LDS file format
- Basic functions of an oscilloscope (cursor, trigger electrode etc.)
- Communication between two CPUs

## SOFTWARE VERSIONS

Design environment	LASAL CLASS 2, LASAL SCREEN, LASAL Machine Manager
Operating system	RTOS, Salamander

## SYSTEM REQUIREMENTS

Performance Index



Memory requirements vary depending on configuration!

### Visualization Memory Requirements

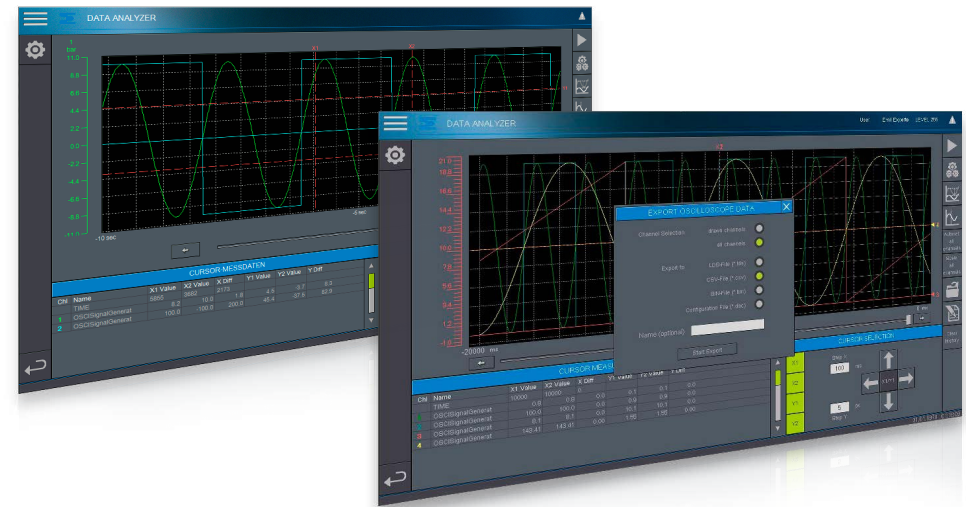
Code Size [KB]	367
User Heap [KB]	3293
LSE Project Size [KB]	190
SRAM [bytes]	452

### Process Memory Requirements

Code Size [KB]	189
SRAM [bytes]	100

## AVAILABLE RESOLUTIONS [px]

800x480, 800x600, 800x1280, 1024x768, 1280x800, 1366x768



# DataLogger



The DataLogger Add-On serves for the recording and graphical display of data and measurement values of longer processes. To prevent data loss during power failures, data is safely buffered in the SRAM and kept in the file system of the control (RamFile). For analysis in other systems, the recorded data can be exported in different file formats. The Add-On is designed as a two-CPU solution, however, it can also be used as a single-CPU solution. This Add-On contains the program elements for the LASAL CLASS project, as well as the LASAL SCREEN projects for multiple resolutions.

## FEATURES

- Recording and graphic display of data
- Null voltage proof data buffer
- Export data in CSV and LDS file format (LDS = LASAL CLASS 2 DataAnalyzer)
- Export data in .bin format for later reimport into a different control
- Basic functionality of an oscilloscope (measuring, triggering, settings for the single channels)
- Communication between two CPUs

## SOFTWARE VERSIONS

Design environment	LASAL CLASS 2, LASAL SCREEN, LASAL Machine Manager
Operating system	RTOS, Salamander

## SYSTEM REQUIREMENTS

Performance Index



### Visualization Memory Requirements

Code Size [KB]	1266
User Heap [KB]	458
LSE Project Size [KB]	207
SRAM [bytes]	configurable, see programming handbook

### Process Control Memory Requirements

Code Size [KB]	95
User Heap [KB]	90
SRAM [bytes]	120

## AVAILABLE RESOLUTIONS [px]

800x480, 800x600, 800x1280, 1024x768, 1280x800, 1366x768

