

ibaPDA-PLC-Xplorer

Interfaces to various PLC systems

Ideally suited for system suppliers, service technicians and control programmers

Fields of application

- › Troubleshooting
- › Locating sporadic errors
- › Commissioning support
- › Mobile use

Measuring from the beginning

ibaPDA-PLC-Xplorer offers the full ibaPDA functionality with access to different PLCs. Without additional hardware, this is an inexpensive way of measuring, displaying and recording signals.



ibaPDA-PLC-Xplorer is the ideal entry-level solution as PC-based acquisition and recording system for various measuring data in automated processes.

ibaPDA-PLC-Xplorer is based on the previously known ibaPDA-S7-Analyzer, which has been designed for acquiring and recording up to 64 signals from SIMATIC S7 systems. ibaPDA-PLC-Xplorer is extended by more interfaces enabling the connection to CODESYS based systems, Allen-Bradley, B&R, Bachmann, Beckhoff, Mitsubishi and SIGMATEK systems. Hence, it is possible to read internal data from the most common PLCs without modifying the PLC itself.

ibaPDA-PLC-Xplorer offers an economical solution for troubleshooting and commissioning and is suitable for long-term analysis and process optimization as well.

Access without additional hardware or programming

The inexpensive software solution ibaPDA-PLC-Xplorer provides the complete functionality of ibaPDA and is able to record 64 signals from up to 16 independent PLCs per PLC-Xplorer interface. The PLC system can be accessed via standard interfaces – usually

via Ethernet – without additional hardware. It is not necessary to modify the PLC configuration nor to program the PLC.

Free operand/symbol selection

The variable list of the PLC can easily be imported in ibaPDA-PLC-Xplorer. All I/O signals and other operands from the PLC programs can be measured.

Most of the ibaPDA-PLC-Xplorer interfaces support a convenient selection of signals based on their symbolic names via address book. Address books are generated in ibaPDA-PLC-Xplorer and contain the available symbols. Depending on the system the address book is generated from the configuration data or loaded directly from the PLC. The signals can easily be selected by mouse click in the integrated symbol browser.

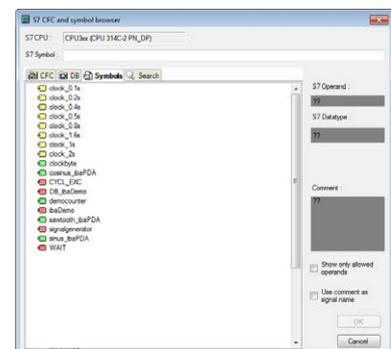
If necessary, the selected signals may flexibly be changed without modifying the PLC program. This flexibility offers many advantages especially for mobile service support.

Variable recording profiles

As known in ibaPDA, various recording profiles can be defined for different applications. Continuous data recording of measurement files in iba format

At a glance

- ▶ Measuring signals directly from a PLC
- ▶ Including interfaces for various PLCs
- ▶ Can be used without additional hardware and without intervention in the PLC
- ▶ Comfortable selection of operands with a symbol browser
- ▶ Up to 64 signals, including full ibaPDA functionality
- ▶ Signals to be measured may be modified or enhanced without programming or restarting the PLC system
- ▶ Including analysis with ibaAnalyzer
- ▶ Data acquisition and analysis simultaneously or independent



Convenient operand selection using a symbol browser

ibaPDA-PLC-Xplorer interfaces

S7-Xplorer

Interface for SIMATIC S7 systems (LOGO1®, S7-200®, S7-300®, S7-400®, S7-400H®, S7-1200®, S7-1500®), WinAC (WinLC RTX), PLCSIM

AB-Xplorer

Interface for Allen Bradley controllers PLC-5 and SLC500 (Rockwell Automation)

B&R-Xplorer

Interface for B&R controllers, e. g. X20 system
Requirements: Installation and licensing of the B&R PVI Manager, which is not included in the ibaPDA-PLC-Xplorer license

Bachmann-Xplorer

Interface for Bachmann M1 controllers

CODESYS-Xplorer

Interface for CODESYS-V2- and CODESYS-V3 based PLC systems
Function tested with control systems of 3S CODESYS, ABB, Danieli, Schneider Electric/Elau and WAGO

Logix-Xplorer

Interface for Allen-Bradley controllers ControlLogix, GuardLogix, CompactLogix, SoftLogix, or FlexLogix (Rockwell Automation)

MELSEC-Xplorer

Interface for Mitsubishi MELSEC controllers

SIGMATEK-Xplorer

Interface for SIGMATEK controllers

TwinCAT-Xplorer

Interface for Beckhoff controllers supports the TwinCATversions 2 and 3

(* .dat) is necessary for long-term analyses or process optimizations, and triggered recordings are useful when errors have to be located. Trigger conditions can be defined time or event related.

Online display

Due to the client server architecture it is possible to online display the timing of all signals on one or more clients - with an individual view for each client. For example PLC programmer or service technicians can have their own view on regions of their specific interest - and of course as mobile user with a laptop. Besides the realtime trend graph, ibaPDA-PLC-Xplorer offers all views known from ibaPDA like oscilloscope, FFT, or digital meter.

Free analysis included

Measurement files generated by ibaPDA-PLC-Xplorer can be analyzed using the ibaAnalyzer* standard tool which is available free of charge. Since data acquisition and analysis are done separately, the files can be analyzed during recording or at a later point in time,

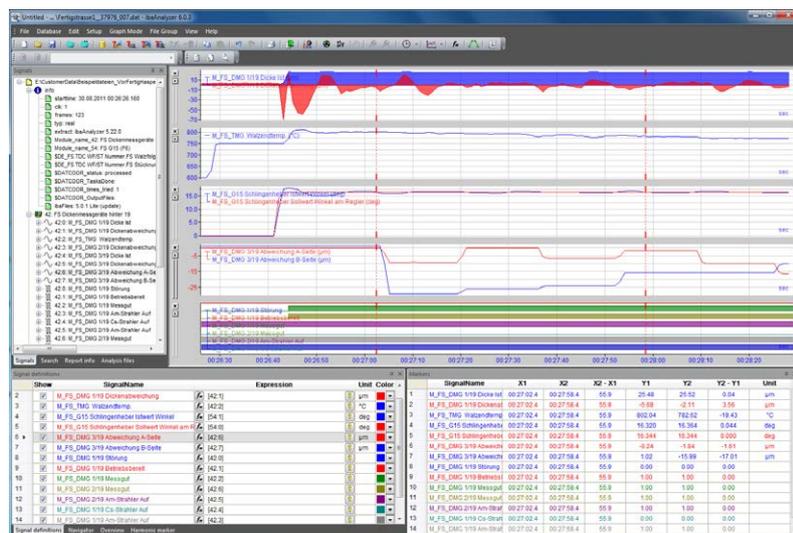
e. g. by experts outside the plant. Since ibaAnalyzer can be used on several computers, several users may individually analyze the data according to their needs. Data can centrally be stored on a server or sent by email.

Automated analysis saves time

Once the evaluation criteria have been defined, analyzing can automatically be done in order to save valuable time. It is possible

to configure ibaPDA-PLC-Xplorer so that the analysis of the last file starts automatically. The applications ibaDatCoordinator and ibaAnalyzer-Reportgenerator provide additional support.

ibaDatCoordinator is a tool for individual data management, e. g. the measurement files can be copied from the acquisition systems to central servers being available for all authorized users.



ibaAnalyzer provides detailed display functions and broad options for analyzing and evaluating.

* ibaAnalyzer with free license when purchasing ibaPDA-PLC-Xplorer

Reports at the push of a button

Using ibaAnalyzer-Reportgenerator, reports can automatically be generated in various formats and individual layouts. Individual job reports, shift reports, or product reports for production, quality management, or controlling can be created in different formats virtually at the push of a button.

Connecting data bases

When the data shall be processed in a database, measuring data can be loaded into a database with ibaAnalyzer-DB. It is also possible to analyze data from a database with this application. The main database formats are supported, like Microsoft SQL-Server, Oracle, IBM DB2-UDB, MySQL, PostgreSQL, Microsoft Access.

Video surveillance with ibaCapture

When launching the version 4 of ibaCapture, it is possible to connect ibaPDA-PLC-Xplorer with

an ibaCapture Server. Thus, measuring data and video data can be recorded synchronously.

An ibaCapture Server license, available in graduated steps depending on the frame rate, and separate camera licenses are needed for video recording. Connecting one camera is an inexpensive entry-level solution to record videos along with measuring data.

Licenses and extensions

The software ibaPDA-PLC-Xplorer includes the interfaces S7-Xplorer, AB-Xplorer, B&R-Xplorer, Bachmann-Xplorer, Codesys-Xplorer, Logix-Xplorer, MELSEC-Xplorer, Sigmatek-Xplorer and TwinCAT-Xplorer, and is designed to record 64 analog or digital signals in total.

If 64 signals are not sufficient or other extensions are required, the system can be upgraded to a complete ibaPDA system.

Training program

The iba training program offers a course „Measurement and data evaluation with the iba system“. During this 2-day training you learn the two-step method for signal configuration, triggering and recording with ibaPDA as well as offline analysis with ibaAnalyzer.

In addition the training gives an overview of the automatic report generation using ibaDatCoordinator and ibaAnalyzer-Reportgenerator.

You find more information regarding the iba training under www.iba-ag.com/training.

System requirements

- ▶ Windows 7 (32/64 Bit), 8 (32/64 Bit), 8.1 (32/64 Bit), 10 (32/64 Bit), Windows Server 2008 (32 Bit), 2008 R2 (64 Bit), 2012 (64 Bit), 2012 R2 (64 Bit), 2016 (64 Bit), 2019 (64 Bit)
- ▶ PC, Multicore CPU 2 GHz, 4 GB RAM, 100 GB HDD

| Order no. | Name | Description |
|-----------|---|---|
| 30.681502 | ibaPDA-V7-PLC-Xplorer | ibaPDA system for 64 signals, 2 clients, 2 data recordings, standard interfaces plus + S7-Xplorer, AB-Xplorer, B&R-Xplorer, Bachmann-Xplorer, Codesys-Xplorer, Logix-Xplorer, MELSEC-Xplorer, Sigmatek-Xplorer, TwinCAT-Xplorer |
| 30.001900 | Upgrade-ibaPDA-PLC-Xplorer-Interfaces | Upgrade of an existing license ibaPDA-PLC-Xplorer with the latest Xplorer interfaces |
| 30.770009 | Upgrade-PLC-Xplorer to PDA-V7-64 | Upgrade to ibaPDA-V7 with 64 signals and PLC-Xplorer interface |
| 31.001042 | ibaPDA-Interface-PLC-Xplorer | Extension license for an ibaPDA system with PLC-Xplorer interfaces |
| 31.000030 | ibaPDA-Interface-SINAMICS-Xplorer ¹ | Xplorer interface for SINAMICS drives |
| 31.000031 | ibaPDA-Interface-SIMOTION-Xplorer ¹ | Xplorer interface for SIMOTION systems |
| 31.000033 | ibaPDA-Interface-SINUMERIK-Xplorer ¹ | Xplorer interface for SINUMERIK CNC controls |
| 31.001044 | ibaPDA-Interface-Drive-Xplorer ¹ | Bundle of SINAMICS and SIMOTION-Xplorer interfaces |
| 61.000200 | Measurement and data evaluation with the iba system | 2-day training |

¹ The interfaces are not included in the ibaPDA-PLC-Xplorer license, but can be licensed additionally.

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