



M1 ServiceCenter

The constantly growing demand for new technologies makes the further development of customer applications for machinery automated by an M1 controller unavoidable. Productivity can also be increased through expansions with Bachmann's latest hardware products. Carrying out the necessary upgrades on one or several machines can be very expensive, amounting to a considerable share of the costs, which include training required for service personnel. Bachmann has developed the M1 ServiceCenter for designing and implementing automated service operations.

The M1 ServiceCenter focuses on ensuring the transparent and reusable design of process sequences. Besides offering functions, such as the reading and saving of software versions, the M1 ServiceCenter also makes it possible to automate software and hardware updates. Interaction with the user is only requested when absolutely necessary. In this case, the user is assisted with step-by-step instructions in order to prevent any errors.

The configurable and freely combinable process steps in the M1 ServiceCenter make it possible to combine both general as well as customized configuration steps into user-friendly applications. After a short explanation, these can even be carried out by untrained operating personnel with no detailed knowledge of the controller configuration.

Standard technologies

The M1 ServiceCenter is a stand-alone application implemented in standard Java and can thus be run on any PC. The M1 ServiceCenter is supplied on a USB stick, from which the application can be run directly (portable program). Alternatively, the program can also be installed on a computer.

Functions

The M1 ServiceCenter software provides configurable process steps for many typical applications used in practice.

| Item | Item no. |
|------------------|-------------|
| M1 ServiceCenter | 00029604-00 |



Engineering Software

These include applications in the following areas:

- Data backup and recovery
- Software and driver updates
- Hardware and software diagnostics
- Migration to new controller types and generations
- Support and help during configuration and commissioning
- Validation of hardware and software installations

The process steps mentioned are provided in a catalog, which is being continuously expanded by Bachmann. However, if particular functions are not available, these can be implemented on request and loaded into the current program version as an add-on.

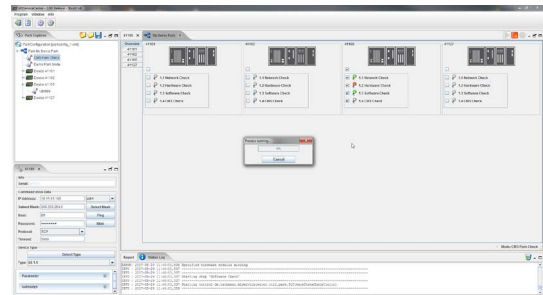
Engineering

Thanks to the ease of completing the engineering tasks offline, work can begin before the hardware is available. The engineering of process operations is carried out by drag and drop in the program using a graphic configurator. For this, the process steps provided in the catalog, such as "Software Backup", are selected and added to groupable list elements. The result of the configuration is a sequence definition that is saved in the program.

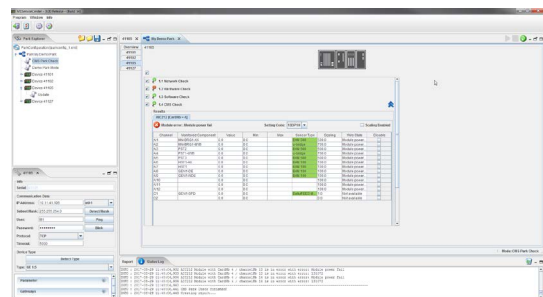
Process sequence and monitoring

Once the sequence definition is created in the configurator perspective, the actual work of the service operation can start in the process view. The controller devices are shown in a tree structure in the actual topology. This configuration can also be configured with the program offline, so that it can be selected and loaded at a later time. Automatic plant type identification can also be configured in order to prevent the possibility of working with the wrong plant or version.

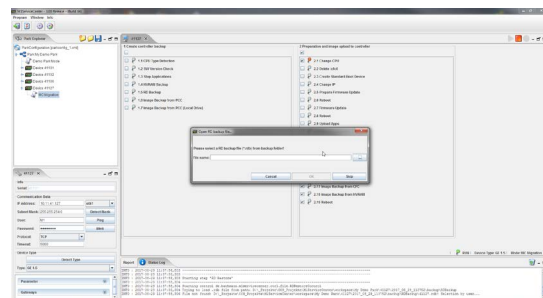
The Monitor view displays the execution and progress of a process sequence, and if necessary, interrupts it or requests interaction with the user. If necessary, user input is carried out by user-friendly dialogs and step-by-step instructions. Process sequences can be used and monitored for both individual as well as multiple plants (park). Both single view and park view of the monitor window indicate the states of the individual steps in different colored LEDs.



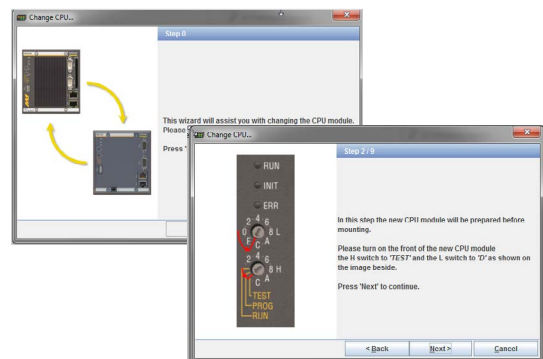
Farm view: Process started



Farm view: Results page for the individual plant



Process sequence for individual plant with user interaction



M1 ServiceCenter – step-by-step instructions

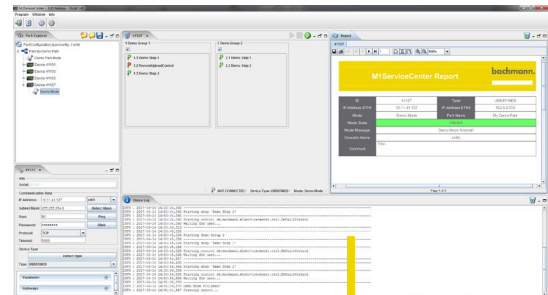
Engineering Software

Reporting

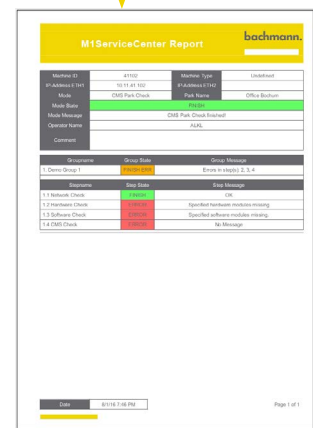
Each process sequence is systematically logged and the results automatically generated and stored in a clear directory structure. A report is also created and archived in PDF format for each process.

Features

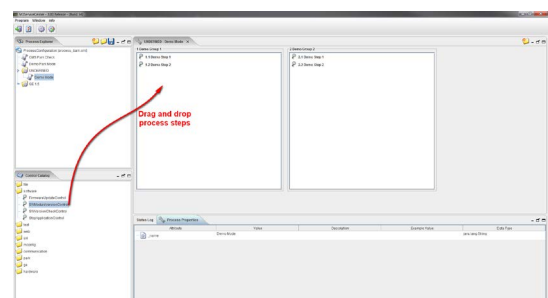
- Offline configurations of parks and process sequences
- Online monitoring of process sequences
- User-defined plant types, process sequences and individual steps
- Automatic plant type detection
- Use of process sequences on individual plants and entire parks
- Several sequences can be defined for one plant type
- All process steps can be carried out independently of each other
- Use of standard Java for communication with M1 controller system (M-JSYS)
- Interaction via user-friendly dialogs
- Expandability through implementation – of custom applications
- Saving of all configurations in readable standard XML files
- Reading and processing of INI files for changing controller configuration automatically
- Entire program language in English
- Reduction of user interactions to a minimum
- Independent from M-Base and SolutionCenter
- No Java installation required since JDK already contained
- Target group: engineering and service personnel



Report preview



Report as a PDF document



Process configurator with catalog function

| M1 ServiceCenter | |
|---|--|
| Process connection / Communication | |
| Technology | Java Swing application with DockingFrames framework |
| Protocol | Bachmann Java M-JSYS library for communicating with the M1 controller |
| Physical interface | Ethernet |
| Parallel operation | Yes, several connections to different M1 controllers with TCP or SSL |
| Hardware | PC, notebook or terminal with Windows OS / Linux OS |
| Installation | USB stick with executable program (and USB license) can also be installed |
| Project design | |
| Development environment | Graphical configurator tools integrated in the program for all necessary operating steps |
| Data retention | All configurations are XML-based and can be read and changed manually |
| Functionality | |
| Single operation | Yes, M1 can be configured and automatically operated with defined customized step sequences |
| Multiple operation | Yes, a machine park can be configured and operated with defined customized step sequences |
| Park configuration | Yes, a machine park can be created and configured offline |
| Step sequence configuration | Yes, freely definable step sequences (if required in subgroups) via graphical editor (drag & drop) |
| Libraries | Yes, many predefined and recurring steps for use/operation with M1 provided as a library catalog for direct use |
| Automation | All configured process steps are run automatically, any manual inputs required are indicated via appropriate dialogs and prompts |
| Reports | Yes, all results of step sequences related to several plants as well as single results of all steps are documented (PDF with preview in the program) |
| Connection | Multiple options to test the connection and function of the M1 |
| Visualization | |
| Framework | Configurable plant layout with movable and dockable windows |