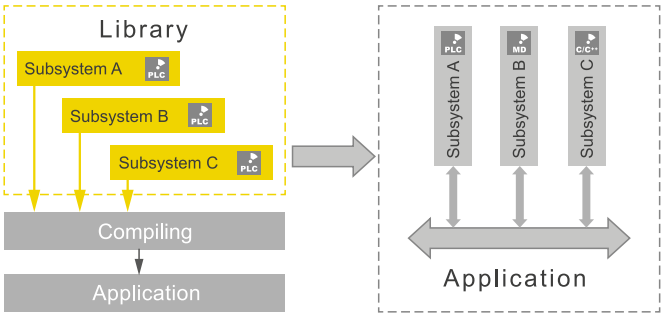
bachmann.
SolutionCenter

Part type designation	Part number
Component Manager	Part of M-Base



Component Manager

With the Component Manager machines and systems can be structured modularly, so that customized differences (other software module combinations, additional modules, etc.) can be created without modification and thus without test of the existing software. The component orientation thus enables creation of the overall function of the technically automated system at the time of instantiation by interconnecting autonomous software modules.

Real machines or systems consist of a variety of subsystems that can be structured according to different criteria (e.g. affiliation with a trade, function). Through the structuring in subsystems it is possible to disregard the complexity of the overall system and only deal with the (reduced) complexity of the subsystem and its interface.

The M200 controller makes the concept of software modules available for software-side organization of these subsystems. Software modules communicate via a uniform interface and can be created in every programming language available on the M200 controller.

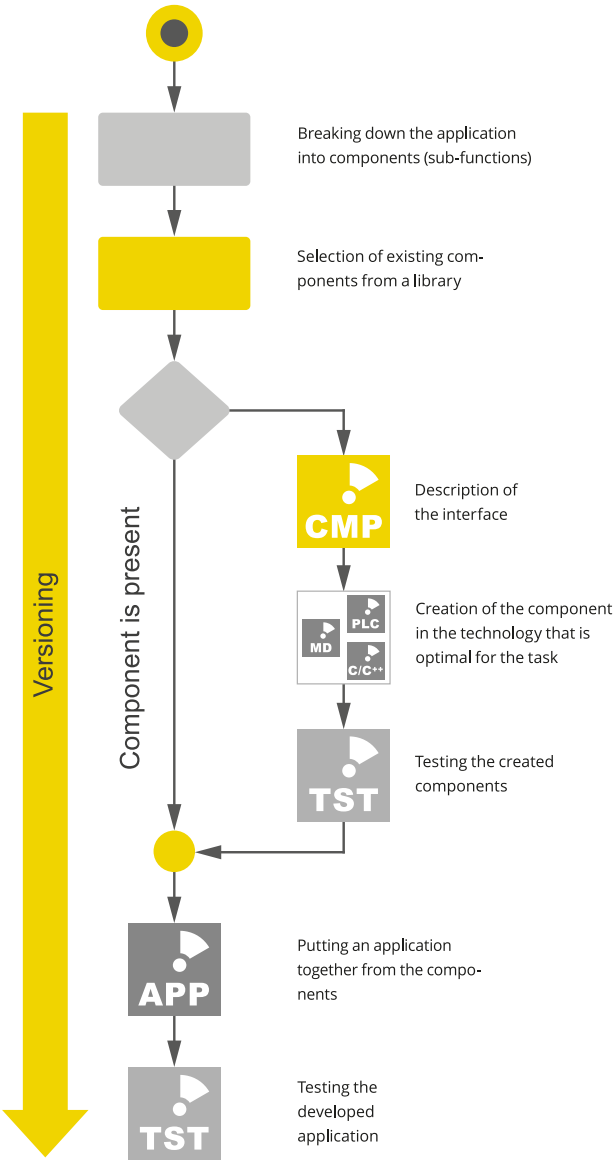
A component abstracts its internal structure or implementation details and describes itself fully by the defined interfaces and properties.

Components are individually compiled, versioned and tested as well as documented if necessary. They can be interconnected among each other and with the I/O system in order to create the overall function of a technically automated system. The implementation of the functionality and the application of the functionality is decoupled.

This procedure enables a multilevel work process:

- Describe component regardless of a target programming language (interface description)
- Program component based on the interface definition
- Create application program by interconnecting components (and possibly I/O system)

The Component Manager provides the corresponding tools for all phases.



Features

- The technical process is in the foreground
- Complete abstraction of the internal structure of the components
- Separation of definition and implementation
- Convenient description language for the interface
- Code generation for low-level areas
- Graphic application development
- Clear application presentation in the SolutionCenter
- Support of functionality on the application level

Component Manager modules

APP **Graphic application development**
Interconnect graphically

TST Component **test**

CMP **Component Designer**
Technology-independent description of the component interface

PLC MD C/C++ **Developer**
for C/C++, PLC, MATLAB®/Simulink®