



Process Automation 

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## Fast and Flexible

Standardization and modularization of process hardware creates the foundation for quickly organizing multiple processes to the required business needs and the type of products to be produced. To make this also truly fast and minimize the required programming efforts when changing processes, the recipe creation has to be user-friendly as well.

For the ContiUnity® platform an automation suite is developed that specifically meets the requirements of continuous flow chemistry in high demanding industries such as pharmaceutical production. For the process automation the ANSI-ISA-88 standard forms the basis for the ContiUnity® control libraries which are verified using the principles of the GAMP5 guideline.

The ContiUnity® software is developed to allow several modules (also known as Process Equipment Assemblies (PEAs)) work together in a process train. Specifically for continuous flow and the modular concept this provides enhanced functionality such as opening flow paths, intermodular quality control, automated startup and error handling and recovery.

## Alternative strategies

Alternatively, Zeton can also offer the ContiUnity® hardware with other control strategy options like remote I/O control with centralised control or control of modules through MTP (Module Type Package) together with a Process Orchestration Layer (POL). These are suitable options for modular plants with e.g. potential less stringent validation conditions, lower product change-over frequencies or limited up-time requirements.

In this leaflet the various options for process automation within ContiUnity® are explained.

## How fast do you need to be?

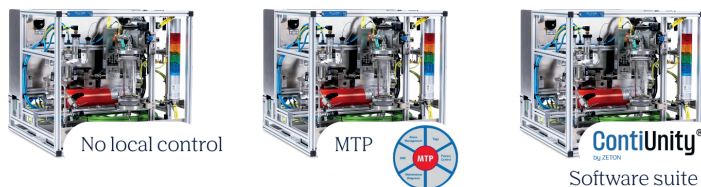
The preferred process automation solution for your modular platform is determined by the number of various processes you run on the platform, the frequency of changing these and the maximum allowed time loss for reorganizing to another process. The ContiUnity® platform is designed to minimize custom design work using a proven modular design in both physical hardware and process automation. The pre-validated modules can be integrated almost instantly with only a few mouse-clicks, therewith reducing process changeover efforts to a minimum.



## Module/PEA interface

The software libraries for the PEAs allow fast integration with any process control system or POL. OPC UA as an industrially accepted protocol is used delivering a standardized interface with for

example Emerson DeltaV and Siemens PCS7. This includes automated work processes generating the POL software. In this way integration of new PEAs is standardized, easy and fast.



Process Hardware	Modular hardware without local control	ContiUnity® hardware	ContiUnity® hardware
Automation solution	Central control system	MTP	ContiUnity®
Process changeover time	**	****	*****
Smart modules	-	✓	✓
Recipe manager	-	✓ (batch engine required)	✓
Minimizing process changeover work efforts	**	****	*****
Automation competence level for process change over	Software engineers	Software engineers and plant operations	Plant operations
Integration of 3rd party PEA with MTP	Requires a suitable POL	✓	✓
Integration of 3rd party PEA without MTP	Custom design	✓ Through MTP gateway	✓ Through ContiUnity® gateway

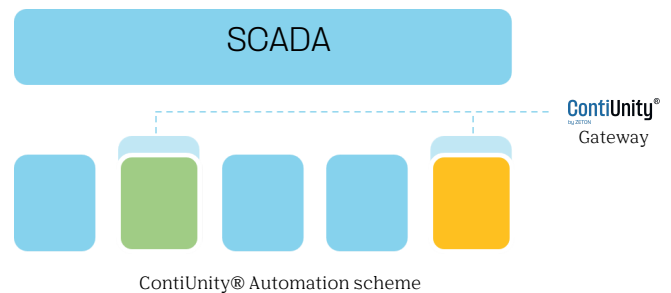
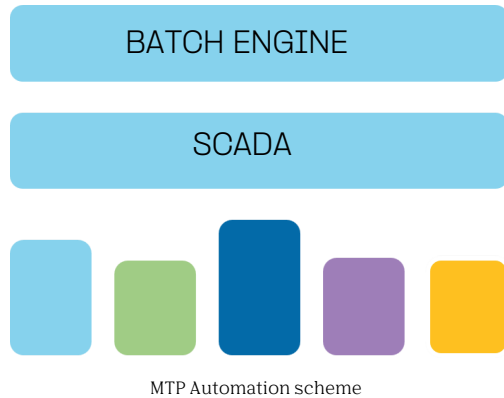
## How fast is your process?

To maximize uptime, ensure stable continuous process control and minimize off spec product sent to waste a fast-acting control system is a necessity. A modular and segmented process plant requires additional features to achieve this. Within the ContiUnity® automation suite **true real time** module-to-module communication is applied which makes it possible to respond faster to changes in your continuous process.

## Process Orchestration Layer for overall control and integration

The POL is a typical DCS or SCADA system that is the orchestrator layered on top of all processing modules. Since all logic is executed in the PEAs, the function of the POL focuses on centralized control and monitoring, alarm & event management, data historian and recipe management. To control a modular process plant

for continuous processes, typically a batch engine is required. Within ContiUnity® the recipe manager is used to avoid software coding per process changeover. In this way the batch engine is not required, and process setup and parameterization can simply be done by plant operations without software coding and only limited verification.



## Fit for purpose automation solution provider

Each project is unique and requires a fit for purpose solution. Together with your experts, our team will thoroughly evaluate your requirements and jointly determine the best approach. This could range from a full ContiUnity® system, MTP based platform or custom design. Overall, we will

ensure a smooth integration of your new hardware system in your existing environment. Please reach out for a more in-depth discussion on your journey to continuous manufacturing to provide you a fit for purpose solution!



**ContiUnity®**  
by ZETON

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