Modular Automation – Terminology

Terms used by ABB	Definition
Modular Automation terms	
Modular Automation	Modular Automation is an enabling technology for a Plug & Produce concept, where a production cell is designed in modules. Such modules have local automation and can in some cases run fully autonomous. The process automation is based on several intelligent modules being orchestrated by a modular enabled process control system (DCS). Intelligent modules can easily be added to existing automation due to modular enabled DCS. The module services are described in a standardized way via so called Module Type Package (MTP).
Module / Intelligent Module	A process unit; a set of equipment that implements a contained process functions. A module can be a package unit or a part of it.
Modular enabled	Property of DCS systems and intelligent module automation systems allowing easy integration of modules utilizing MTP descriptions.
Module-based plants	Process plants using Modular Automation in the whole or parts of the process.
Module services	The services that the module provides e.g. starting the filtering, cleaning, self-maintenance…
Skid (modular process) / Package unit	A process system contained within a frame that allows the process system to be easily transported. Individual skids or package units can contain complete process systems and multiple process skids can be combined to create larger process systems or entire portable plants. Pre-designed (in most cases autonomous system) that can be brought into the production process.
Technology and products	
Architecture network	Communication backbone integrating intelligent modules into orchestration systems.
Modular Type Package (MTP)	A standardized description of the XML file describing the module in its automation aspects to the orchestration, such as the services provided by

	the module, the communication, a human machine interface (HMI) description and maintenance information. The format has been agreed to be extended markup language (XML), as it is a common generic data format.
Process orchestration system	Process control system that triggers the production process, collects all feedback of the services, handles the information and returns the commands for each process module. All the information on the current state of the plant is available on the HMI of the process orchestration system.
Supervisory control	Automation orchestrating the production flow between the modules by controlling the service in the Intelligent Modules and interlocking module services against each other.
Tools	
Module Designer	Tool that allows to design automation for Intelligent Modules. Definition of the piping and instrumentation as well as module services can be done. The final configuration can generate a target configuration for ABB automation systems like Freelance as well as an MTP File for the integration into an orchestration systems.
Orchestration Designer	The Orchestration Designer helps maintain a library of MTPs, which can then be configured using a drag and drop approach and connecting the necessary pipes between each of the modules. The Orchestration Designer is configuring how the user sees the modules and defines how the services within the modules are then orchestrated.
Actors	
OEM / Module vendor	Original Equipment Manufacturer designs and manufacture package units or skids.
NAMUR	NAMUR is an international user association of automation technology in process industries. The association represents the interests of, and supports the experience exchange among over 140 member companies and with other associations and organizations. Work results are published in the form of NAMUR recommendations and submitted to national and international standardization bodies as proposed standards.
System integrator	Process automation group that focuses on integrating Intelligent Modules into orchestration systems.