

## Checking and Controlling Production Processes

PLATO Control Plan is an instrument for checking and controlling production processes. In the production control plan, the actions and inspection methods used to monitor product and process features are documented. The goal is to achieve stable and controllable processes, and therefore to guarantee the quality of the product.

Charging cradle STD (Control Plan)													
Process step	No.	Operations Layout				Methods/Probes							
		Machine/Device	No.	Product Characteristics	Process Characteristics	Class	Specifications/Tolerances	Measurement Technique	Sample Size	Measure	Frequency	Control Method	Reaction Plan
Check assembly parts for completeness	10 a		1		Bill of material		= LS STD 1	Visual inspection	100	%	continuously	BOM allocation in assembly record	RP-11
Visual inspection of assembly parts for damage	10 c		2		Reference pattern catalog		= VMK 47 11	Visual inspection	100	%	continuously	Assembly report	RP-11
Tighten PCB with counter sunk screw	30 b	Torque screwdriver TSD 12	5		Tightening torque		= 0.5 Nm (+0.05/-0.05)	Automatically tool inspection	100	%	continuously	Maintenance report	calibration of torque and notification to test medium department
		M3 B8-K-PD	2	Screw length			= 10 mm (+1/-1)	Visual inspection	1	Test	each batch of screws	Batch report	RP-18
		M3 B8-K-PD						Incoming goods inspection	5	Tests	each delivery	Incoming goods report	Compliant and supplier audit (if needed)
Apply soldering flux out of dosing onto the contact	50 c	Soldering station SS1	1		Amount of flux		acc. to DIN 965	Type inspection	1	Test	each charge of screws	Batch report	RP-18
								Manual dosing test	1	Test	each shift	Work equipment report	Calibration and additional visual inspection of all affected joints
								Automatically tool inspection	100	%	each dosage	Maintenance report	Repetitive calibration

Fig. 1: Control plan

## Applications and Use

- Used during the quality planning process and as part of the overall quality process
- Aids in the manufacture of quality products made according to customer requirements
- Provides a logical process organization
- Structured approach to the development and selection of value-creating monitoring methods
- Provides a complete overview of inspection actions and supplies data for inspection plans
- Planning and constant updating of the inspection and monitoring system in HACCP studies

## Branches and Standards

PLATO Control Plan is used in industry for production processes.

IATF 16949 and AIAG demand the creation of a control plan. It is a required document for the Production Part Approval Process (PPAP).

The FAO/WHO HACCP standard (ALINORM 97/13A, Annex II) requires the establishment of a monitoring system for critical control points. This standard is used as the basis for legal regulations and safety standards in the food industry.

## PLATO e1ns Database

The control plan provides data for FMEAs, system analyses, and process flow charts via the central PLATO e1ns database. This integration ensures effective and efficient teamwork throughout all departments – revisions and the need to maintain more than one database are eliminated.

## Checking and Controlling Production Processes

### Primary Focus and Functions

#### Faster configuration using the Process Configurator

- Data from a variety of sources is needed in the control plan. The Process Configurator provides a clear, cross-structure overview of the complex relationships between the process and product structure, machines, and characteristics.
- The matrix graphic is easy to understand and allows users to proceed very quickly and systematically.
- Once the process is configured, the control plan form is already filled in with the essential data. You only need to add the measuring devices, random samples, control methods, and reaction plans.

#### Consistent, up-to-date, and easily available data

- Changes and updates to process data are automatically propagated to all other forms affected (FMEA, process flow chart, etc.). The data in e1ns.flow is also synchronized when processes are created and modeled visually.
- Critical process and product characteristics are consistently indicated and updated.
- PLATO Control Plan is a web application, which means no local installation is necessary. Employees from all corporate divisions have easy access – from anywhere in the world.

#### Individual requirements are taken into account

- PLATO Control Plan benefits from the PLATO toolbox concept.
- Additional columns or data are added to the standard control plan form if necessary – depending on the internal requirements of the company.
- The data output can also be configured individually depending on which documents are needed for projects, customers, or archiving purposes.

## PLATO Control Plan as Part of the PLATO e1ns Family

More PLATO e1ns functions :

- Project Planning
- Requirements Management
- Model-based System Analysis
- Risk Management
- Quality Methods – PLATO FMEA/ DRBFM
- Fault Tree Analysis
- Process Planning
- Test Planning (DVP&R)
- Action Management
- Document Management
- Template Management
- Lessons Learned
- Key Figures
- Generation of product files
- ...



**PLATO e1ns - The Engineering Framework**  
 Here you can find information about the full  
 functionality of PLATO e1ns:  
[www.plato.de/en/e1ns](http://www.plato.de/en/e1ns)