DigiProces

Traceability

What is it?

Traceability is the essence of factory digitalization. It consists of collecting data on everything that happens to the product during the production process to later analyze them and improve both the efficiency of the process and the quality of the product.

Benefits

Thanks to the implementation of traceability in the factory, it is possible to clarify "when and where was produced what and by whom". Its main benefits are the following:



"We are not satisfied with just a test system in the end of the line. If we realize that something has gone wrong, we want to be able to link the failure with every process that has happened in our factory".

David Batet. CTO

MES: FactoryLogix

DigiProces uses Aegis MES (Manufacturing Execution System), FactoryLogix, as a powerful tool for manufacturing control. FactoryLogix is responsible for collecting data for traceability, from reception of raw materials to the shipment of the product, going through all the manufacturing processes: kitting, SMT, THT, coating, Box Build, test and packaging.

Internal traceability at DigiProces has two main focuses:



Raw materials

The components are identified with unique numbers, against which we have information related to the supplier, order number, batch quantity, Date Code of the component...





Processes

The production process always begins with the identification of the product to be manufactured with a unique identifier (S/N) engraved with laser in DMC (Data Matrix Code) format.



1. We use digital work instructions coming directly from process engineering, which, through the approval chain, releases them as the current ones for production. The version of this digital documentation is registered in the system against the production batch.

The digital work instructions allow interaction with the operator for the introduction of process data if needed.



- 2. The process parameters of each phase are registered against the S/N.
- **3.** The tooling used, also with a unique identifier, is recorded as the one used for the S/N in process.
- **4.** Raw materials with a unique identifier are recorded as consumed in a particular S/N.

Genealogy

Thanks to the traceability system of the factory, DigiProces has the genealogy (provenience) of each one of the products manufactured. FactoryLogix allows to enter a batch number of raw materials and receive as a response all the S/N that have these raw materials assembled. On the other hand, it allows to enter a S/N and receive as a response the entire production process associated with it with dates, process parameters, final test parameters, tools used and the operators involved.

Genealogy #	Include Route Histor	ry Details									E E	xport 🍠 Print
nd Items by Batch	Route History Rou	te Status Defect Hist	ory Test Data Para	ametric Materials N	Asterial History Kitted Mat	erials Tools Appro	vals Historical Gene	alogy NCR History C	locuments			
FA20104001185 🕨.	Operation	Process flow	Workstation	Computer	Started	Finished	Action	Operator	Batch	Quantity	Assembly	Routed To Pathway
Senealogy Tree (RED = Archived)	Laser Marking	Process Flow	A3 FINK	SVRSTGFLXLINK	6/29/2021 10:52:4	6/29/2021 10:52:4	Passed	Laser (xLink)	OFA20104001186	1	1510537WORKLIG	
2127078649000 (D537WORKLIG - 0)	B SMT Print Top	Process Flow	Printer DEK	11010163	6/29/2021 6:06:48	6/29/2021 6:06:52	Passed	AegisAdmin	OFA20104001186	1	1510537WORKLIG	
1 - 2127078645003 (D537WORKLIG - 0)	SMT SPI Top	Process Flow	SPILI	SVRSTGFLXLINK	6/29/2021 6:11:14	6/29/2021 6:11:19	Passed	SV (xLink)	OFA20104001186	1	1510537WORKLIG	
2 - 2127078645002 (D537WORRLIG - 0)	SMT A01 Top	Process Flow	KY AOI ZENITH	SVRSTGFLXLINK	6/29/2021 6:29:59	6/29/2021 6:30:06	Passed	xLinkTransmitter	OFA20104001186	1	151D537WORKLIG	
3 - 2127078645004 (D537WORKLIG - 0)	SMT AOI Top	Process Flow	KY AOI ZENITH	SVRSTGFLXLINK	6/29/2021 6:29:59	6/29/2021 6:30:06	Passed	xLinkTransmitter	OFA20104001186	1	1510537WORKLIG	
+ 1227/944001 (5157/004015 - 0)	SMT AOI Top	Process Flow	KY AOI ZENITH	SVRSTGFLXLINK	6/29/2021 6:29:59	6/29/2021 6:30:06	Passed	xLinkTransmitter	OFA20104001186	1	1510537WORKLIG	
	SMT AOI Top	Process Flow		IT010164	6/30/2021 6:42:49	6/30/2021 6:42:59	Passed	AegisAdmin	OFA20104001186	1	151D537WORKLIG	
	SMT Place Top	Process Flow		IT010164	6/30/2021 6:44:30	6/30/2021 6:44:35	Passed	AegisAdmin	OFA20104001186	1	151D537WORKLIG	
	SMT Place Top	Process Flow		IT010164	6/30/2021 6:44:45	6/30/2021 6:44:53	Passed	AegisAdmin	OFA20104001186	1	151D537WORKLIG	
	SMT AOI Top	Process Flow		IT010164	6/30/2021 6:45:48	6/30/2021 6:45:58	Passed	AegisAdmin	OFA20104001186	1	151D537WORKLIG	
	Change the prod.	. Process Flow		IT010164	6/30/2021 6:46:22	6/30/2021 6:46:22	Route Updated	AegisAdmin	OFA20104001185	1	D537WORKLIG - 0	
	Change the prod.	Process Flow		IT010164	6/30/2021 6:46:22	6/30/2021 6:46:22	Passed	AegisAdmin	OFA20104001185	1	D537WORKLIG - 0	
	Change the prod.	Process Flow		IT010164	6/30/2021 6:46:24	6/30/2021 6:47:35	Passed	AegisAdmin	OFA20104001185	1	D537WORKLIG - 0	
	Change the prod.	Process Flow		IT010164	6/30/2021 6:47:36	6/30/2021 6:47:43	Passed	AegisAdmin	OFA20104001185	1	D537WORKLIG - 0	
	E THT Place-1	Process Flow	THT WAVE L1 -1	IT010164	6/30/2021 6:50:27	6/30/2021 6:50:43	Passed	AegisAdmin	OFA20104001185	1	D537WORKLIG - 0	
	Activity		Started		F	Finished		Approval Status		Acknowledged By		
	Recolección de P	Portador Actividad #1	6/30/2021 6:50:27 PM		6	6/30/2021 6:90:32 PM		n/a		AegisAdmin		
	THT Place 2	Process Flow		IT010165	6/30/2021 6:51:29	6/30/2021 6:51:35	Passed	AegisAdmin	OFA20104001185	1	D537WORKLIG - 0	
	THT Place 3	Process Flow	THT WAVE L1 -3	IT010166	6/30/2021 6:52:00	6/30/2021 6:52:26	Passed	grosell	OFA20104001185	1	D537WORKLIG - 0	
velated Information												
and the second sec												
Historical Batch: OFA2 Stock Location 4 +												

FACTS

DigiProces has a powerful software tool (FACTS) for the analysis and management of data from production test stations (Production Test Data Management System).

With FACTS our customers can immediately know the production performance of their products (yield), as well as process quality indicators such as Cp, Cpk and population distribution. These data are obtained from the final test stations thanks to a functional test of the finished part. FACTS is an independent database generated through the collection of the results of each of the test steps of the final test stations. In order for our customers to benefit from this infrastructure, the final test stations must be able to send the test data to FACTS using a standard xml file. The FACTS database is accessible via the web. Internally, FACTS data are transferred to the FactoryLogix database to cross-check the test information with the production process data.

