—

ABB Ability™ **Paintcel**
Powerful MES dedicated to paint & coatings production

A plant-wide advantage

You are looking for flexibility to deal with numerous and various grades to produce.

You are looking for rigor and security, while keeping the highest quality standards.

You are aiming at good batches with no corrections and better productivity.

Paintcel was designed to meet these major requirements.

A plant-wide control system
Although they are not as automated as the mixing activity itself (or even not automated at all), the other plant activities require similar attention to procedure and quality control.

Paintcel matches your expectations, as its benefits can be extended to encompass the control and supervision of all the operations within the plant:
• receipt of materials,
• bulk storage,
• tinting, colour matching,
• material movements / pigging,
• package filling.

Paintcel guarantees adherence to your procedure, whatever the activity or operation:
• feasibility check,
• resource allocation and release,
• instructions to operator and/or automated
• subsystems, data collection, report.

Paintcel helps you in your pursuit of Total Quality Control:
• no human errors,
• no cross-contamination,
• management of batch numbers,
• tank quarantine until QC-release,
• consideration of material properties,
• tracking of all operations.

The benefits of a true MES
Designed to control all the plant activities, Paintcel is the Manufacturing Execution System dedicated to your manufacturing process, with the following benefits:
• full consistency in operating the system,
• reduced manpower requirements,
• real-time data collection,
• total and smooth availability of information,
• better co-ordination between activities,
• productivity improvement and cost reduction
• (no waiting time, no loss of material, production on-spec first time).

Increased productivity and quality

A specialised flexible tool
System functionalities, architecture and data base are paint orientated:
- raw materials classification: binder, fillers pigments, solvents, additives...
- route recipe and sub-recipe concept,
- cleaning procedures and compatibilities,
- VPC, solid content, density calculations.

Paintcel is a powerful and flexible tool :
- Multiple-recipe concept for one formula, according to batch size, raw material supplier, equipment...
- Multiple-production organisation type, with or without grinding, intermix concept, colour matching, premixing, semi-finished products...

- Integration of 100% manual sub processing part....and so easy to use..

Paintcel features make up a powerful, ISA-SP88 compliant batchcontrol system, including:

Recipe Manager and sub-recipes control
You specify the product formula and the manufacturing sequences in a semi-natural language, with possible sub-recipe links.
You adapt your process quickly and safely to any required change (new products, alternates raw materials, etc).

Batch Manager and schedules
You define the production requirements for the next couple of days. You can rely on Paintcel to generate each batch-control recipe, verify its feasibility and have it properly executed.

Resource Manager
You can't make mistakes: Paintcel manages the use of the shared resources. You can rely on its powerful database for controlling consumption, production cost, preventive maintenance criteria or any specific question.
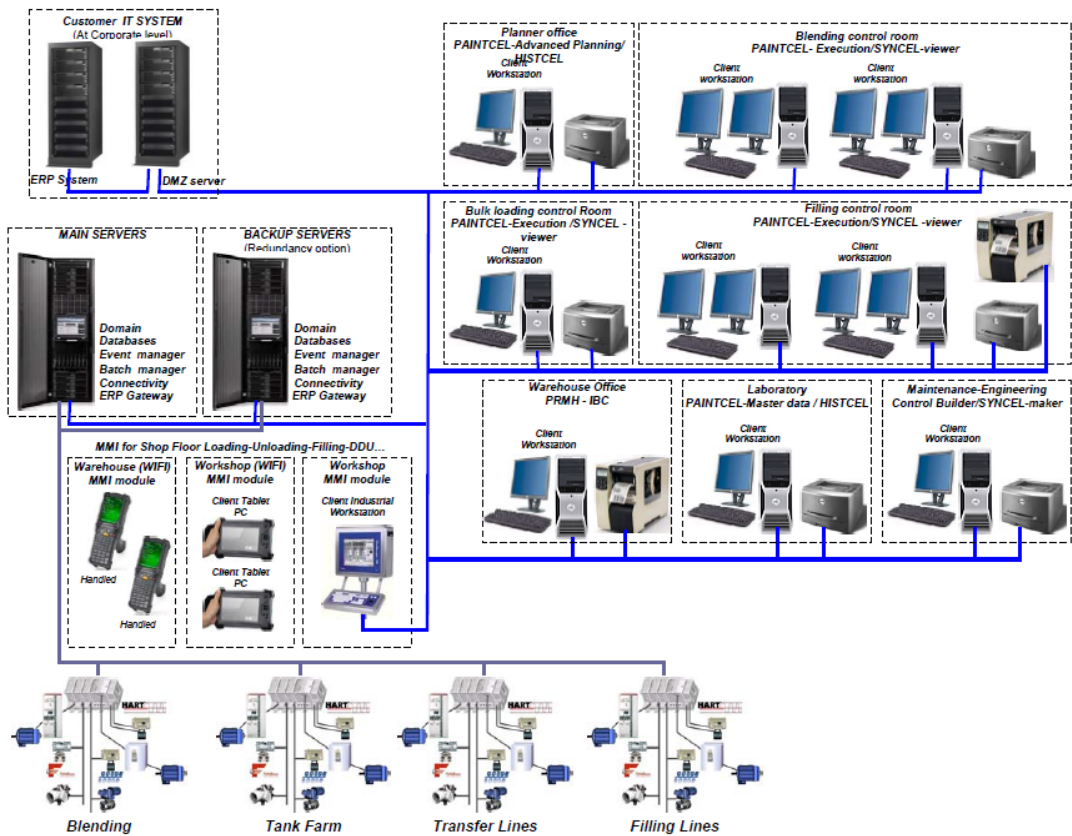

Paintcel interface in resin storage area

The key to an integrated production system
Based on the client/server architecture and on standard software tools, Paintcel has virtually no limit in expanding and interfacing with other systems. Its high connectivity will federate all your subsystems, existing or future. And, last but not least, Paintcel interfaces with all ERP systems

—
System typical
architecture

receiving the production requirements and up-loading production reports.

Easy to operate
With a familiar intuitive windows ergonomy. Paintcel makes information available wherever needed: control room, laboratory, workshop, …

Know-how and quality
- Paintcel prevents cross-contamination between products in the equipment.
- Paintcel fully controls and supervises cleaning, rinse and flush operations.
- Paintcel integrates adjustments to maintain the product on-spec.
- Paintcel optimises the sequencing according to the product-compatibility table.
- Paintcel includes an automatic adjustment of the color dosage according to the characteristics of the batch (shade of color).

Data tracking and historic
Paintcel collects the production data relating to each batch:
- Date and time
- Equipment used
- Actual quantities of components used
- Sample results
- Alarms and all significant events

Paintcel generates a report upon completion of operations. The data are also archived in the

Paintcel relational database, from which they can be retrieved with standard SQL requests. They can thus be processed or exported for subsequent SPC or SQC analysis. You can rely on the powerful database for controlling consumption, cost production, preventive maintenance criteria or any specific question.

Analytical tools
Paintcel provides powerful analytical tools to identify and analyse the production phases which need productivity improvements. These tools enable to:
- follow-up of production, dosing and waiting times,
- opitmise human resources,
- optimise process and maintenance operations,
- increase productivity and quality.

A cost-effective investment

—
**Paintcel on Man
Machine Interface to
control manual bag
emptying operation**

A cost-effective investment
Paintcel with its well-designed process-control,
quality control and information-management
functions brings the following benefits:
- easy process tuning,
- reduction of slops,
- controlled used of materials and equipments,
- reblend rate virtually zero,
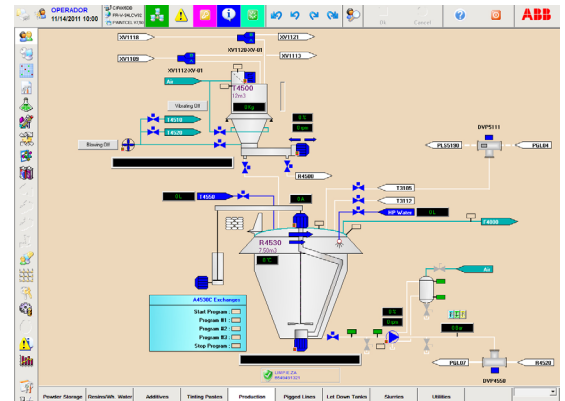- compliance with strict regulations,
- total customer satisfaction.

This yields a quick pay-back and helps to build
customer confidence.

Quick and right information
Overview and zoom-in displays give fast and
complete information to authorized users. Color
graphic mimic screens show the status of the
equipment and the instruments values, and
highlight the location of any failure as soon as it
occurs.

Syncel graphic module
- SCADA system.
- Animated synoptic screens.
- Management and record or events.
- Integrated electrical and manufacturer
  documentations.
- Compatible with all OPC servers.

Paintcel synoptic screen

The replay function enables the visualisation of
animated synoptics of production modules
starting from a date over several months ago.

An open system
Based on the most recent technologies
(Windows, client-server architecture, relational
database) and standard software tools, Paintcel
is associated to interface libraries available for
the most common PLC's and DCS's.

Paintcel has the capability to exchange data with
your enterprise resource planning system, to

—
With CMMS integration, Paintcel enables an efficient preventive maintenance of the plant, i.e. pig change on pigged lines

up-date its data real time, thus optimizing the overall efficiency of the entire production facility.

Simple configuration
Configuration tools are part of Paintcel system. They enable an easy modification of process parameters as well as of synoptics. For the configuration of circuits as for the creation or modification of synoptics, development licences are included in the Paintcel software.

Paintcel configuration tools enable process modifications

CMMS integration
With its CMMS (Computerized Maintenance Management System), Paintcel enables efficient maintenance activities, by:
• managing maintenance operations (scheduling of work orders, planning of spare parts, service contracts, etc.),

• integrating technical documentations (quick access to instruction manuals and easy diagnosis and corrective actions),
• consequently improving plant availability and reducing downtime risks and costs.

Main references
• Akzo Nobel
• Blanchon
• Dahian Paint
• Dyrup
• Eskaro
• Gatefossé
• ICI
• Kunsul
• MCR
• Novartis
• TOA
• Vernilac
• Vitex
• Etc.

ABB

—
ABB France
Industrial Automation Division
Cellier Activity
700 boulevard Jean-Jules Herbert
Parc d'Activités des Combaruches
73100 Aix-Les-Bains, France
Tel.: +33 479 35 05 65
E-mail: info.cellier@fr.abb.com

Contact for the U.S.A.:
Pablo E. Garce
Global Business Development Manager
Tel.: +1 832 421 4864
E-mail: pablo.e.garce@us.abb.com

abb.com/chemical

Additional information
We reserve the right to make technical
changes or modify the contents of this
document without prior notice. With
regard to purchase orders, the agreed
particulars shall prevail. ABB does not
accept any responsibility whatsoever for
potential errors or possible lack of infor-
mation in this document.

We reserve all rights in this document
and in the subject matter and illustra-
tions contained therein. Any reproduc-
tion, disclosure to third parties or
utilization of its contents – in whole or
in parts – is forbidden without prior
written consent of ABB.