Are you still teaching or are you already painting?

Under this motto, VMT Process Technology is glad to present their latest highlight: the automatic generation of motion programs for painting robots.

And these are the advantages:

- no costs for manual programming
- reduced introduction / set-up time for new components / beta series
- reduced amount of preparation work (mixed batches or mixed articles)
- fast reaction in the event of technical modifications
- flexible handling of orders
- lower precision requirements for handling and conveying equipment
- higher throughput
- collision- and destruction-free due to simulation
- documentation of actual state

Do you have to paint many different surfaces automatically?

Do you regularly have to cope with subsequently modified surfaces?

Do these surfaces moreover need to be treated differently?

Does the paint have to applied economically and only on the surfaces to be painted?

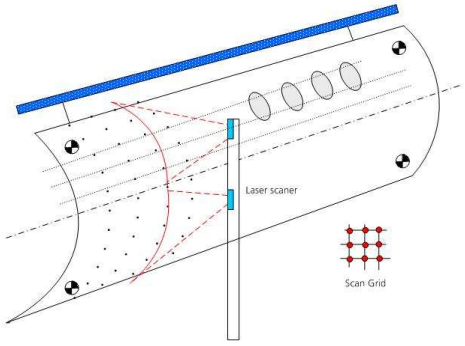
Then our online painting program generation may be the solution.

Our online painting program generation system automatically generates the painting robot program after scanning the surfaces to be painted by means of laser systems.

During transport to the painting booth, the program produces an image of the surfaces to be painted. The object image can be optimized with filters for the painting schedule.

The object image is also used for determining the dimensions and the location of surfaces and edges for the painting schedule.

Special painting instructions are taken over from the material flow system as batch data and taken into account in the painting schedule.

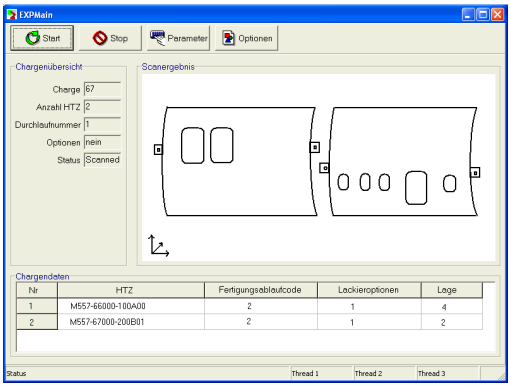


Based on the surface and edge information and the batch data the system generates the painting program.

To ensure a faultless program run, the robot axis positions are checked in the painting program for potential collisions and overstepping of limit values.

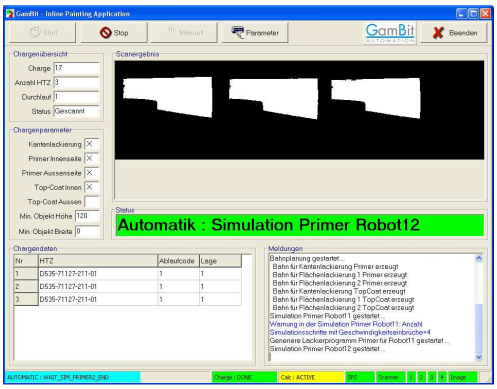
The checked program is then transferred to the robot for execution.

All these steps are self-executing without requiring the intervention of an operator in the automatic mode.



The program environment is a menu-supported system in the Windows look and equipped with a context-sensitive online help function. Program documentations and operating instructions are available as *.PDF files in the system and can be accessed whenever needed.

- PC-based operation and administration, supported by an ORACLE database
- Log-files for operation, component and QA data
- Exchange of data with the production control via TCP/IP



Scanning:	Max. speeds during transport 1.0 m/s
	Max. size 10.5 x 1.2 x 3.1m (W x D xH)
	Surfaces with a max. curvature of up to 45 °
Accuracy:	5mm grid (WxDxH), narrower grids possible
Miscellaneous:	Automatic detection of surface and edge features according to location and size
	Parameterizable filtering options for measured values during object scan
	Integration into existing material flow system for adoption of batch data
	Checking of generated painting programs for overstepping of axes limits, collision with objects or with the painting booth and for observance of the path velocity (singularities).
	Automatic generation of robot programs for surfaces and edges for two robots with 7 axes (front and back)
	Integration of painting parameters such as order volume, painting pressure, distance to object, etc.

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