*Eco*Screen 3D-OnSite

Function

***Eco*Screen 3D-OnSite**
*Eco*Screen 3D-OnSite is an off-line display and programming software, developed by Dürr for creating and editing robot programs with related process parameters in a full 3D graphical environment.
The user therefore has a tool at the system control computer that has been tailored to his process and his system configuration in the best possible way and is in the immediate vicinity of the robot cell.

*Eco*Screen 3D-OnSite can communicate with one or several *Eco*R.. robot controllers via Ethernet. The machine data, program files and process data tables that are stored on the flash card of the robot controller are read out online and updated by downloading when they are saved. All configuration data for *Eco*Screen 3D-OnSite is read out of the controller. No system-specific settings are stored on the installation computer.

Design

*Eco*Screen 3D-OnSite consists of several editors and tools. All program components are integrated in an user interface and can be selected using a navigation bar. The *Eco*Screen 3D-OnSite graphics editor provides convenient and easy-to-operate tools for off-site and on-site programming of robot movement paths and for navigating in a 3D world. Three-dimensional graphics of the objects that are being painted (bodies, carriers etc.) can be loaded in the graphics window, as can the three-dimensional displays of the robot tools (atomizers) and the robot itself. *Eco*Talk programs are displayed to the user in a clear format as multicoloured tree structures and can be edited using a menu-guided system.

Highlights

Perfect Adaption
*Eco*Screen 3D-OnSite is exactly adapted to the requirements for programming and parameterisation of Dürr *Ecopaint* Robots.

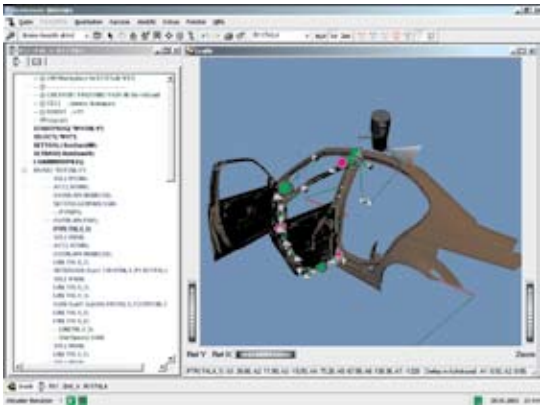
Effective Use
On-site programming, parameterisation and simulation without system downtime.

Easy-to-use Editors
3D graphical editor and program editor with many functions for easy and rapid creation and optimisation of *Eco*Talk path programs.

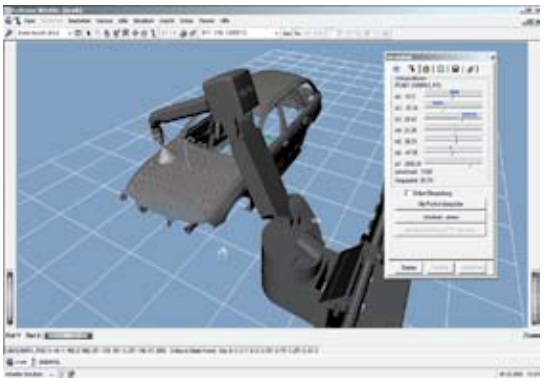
RRS = realistic robot simulation

Simulation in Accordance with RRS Standard
Main program and painting module simulation, including program logic.

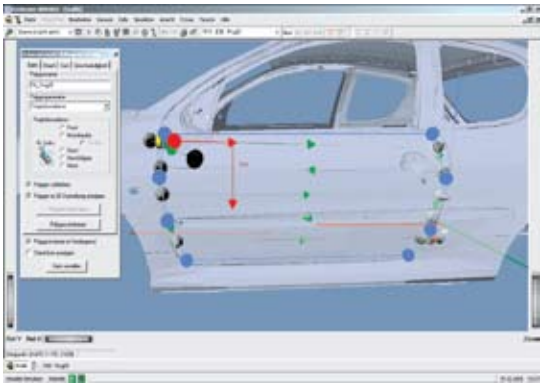
Display in 3D View
Robot kinematics in 3D view for better display and assessment of the programmed path.



Program editor 3D graphics editor



Simulation



Automated path generation

Collision Monitoring, Video Recording

Multi-kinematics Simulation
Multi-kinematics simulation with up to 16 robots.

Automated Path Generation
Automated path generation of complete module programs for painting external surfaces.

Database Manager
Database manager with powerful functions for managing, comparing and maintaining the comprehensive process parameter database.

DÜRR

Technical Data, Scope of Delivery

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General functions	Basic package	Simulation	Path generation	DB Manager
Access protection / on-line language change / on-line help	X			
EcoRC2 Directory View				
Add / remove / copy / rename *Eco*Talk projects and programs	X			
Mirror / transfer / distribute *Eco*Talk programs	X			
Export / import *Eco*Talk programs	X			
***Eco*Talk program editor**				
Load / save / print *Eco*Talk programs	X			
Display *Eco*Talk command sequence in tree structure	X			
Add / delete / modify *Eco*Talk commands	X			
Tabular editor for path points, trigger coordinates etc.	X			
Program-wide copying of commands / points etc.	X			
Mirror / transfer / tidy up / compare programs	X			
***Eco*Talk 3D Graphics editor**				
3D display of TCP path (points, triggers, direction, speed)	X			
Importing, positioning and data reduction for CAD models (Vrml1.0 / Vrml2.0)	X			
Display tool orientation (atomizer)	X			
Add / delete / modify points and triggers	X			
Place and align points on surface of CAD models	X			
Smoothing function for point orientation and movement of axis 7	X			
Simulation of main programs and painting modules in accordance with RRS standard		X		
Display simulated TCP path in 3D view		X		
Test reachability during programming		X		
Display robot kinematics in 3D view (robot library)		X		
Display and monitor virtual workspace (only with EcoMotionGuard S)		X		
Simulate all kinematics of a cell, including robot / robot communication		X		
Video recording / collision monitoring		X		
Automated path generation for painting exterior surfaces (Stop & Go only)			X	
Brush Editor				
Display brush data in tabular format	X			
Load / store / print / copy brush data	X			
Brush data version management	X			
Editors for process data tables and configuration data	X			
Contour Programming of *Ecopaint* Clean Cleaning Systems				
Contour display in 2D view	X			
Creation of programs and fixed positions in axis coordinates	X			
Tools				
Measuring tool / change log / backup service for EcoRC2 flash cards	X			
Database Manager				
Selective restoring of data from backups made by backup service				X
Creation of master data records				X
Selective retrieval / export / import of master data				X
Comparison of current controller data with backups or master data				X
Detailed display of comparison results				X

System requirements:
Intel Pentium III Processor 800MHz / 256 MB RAM
Windows NT 4.0 + Service pack 6, Windows 2000 (ger / eng / fr), Windows XP SP1