

FRAUNHOFER INSTITUTE FOR
COMPUTER GRAPHICS RESEARCH

PLANT@HAND3D

THE MULTITOUCH CONTROL CENTER FOR PRODUCTION



Utilization

Plant@Hand3D offers additional benefits for supervising and controlling machines and production plants; deviations are identified almost immediately and information is localized and easily accessible. Additionally, the relationship between machinery and production stages is discernable at once.

With these and additional information from any available system (ERP, MES, etc.), the user is able to make an informed decision, regarding his path of action. The visualization and combination of data allows for better consideration of boundary conditions, which further improves the process. The additional functionalities of the control station allow for direct responses, like rerouting of production lines to other machines, or the rearrangement of production queues. To help the user with the decision process, he can share his information and confer with other users, regardless of their proximity. The system also allows users to access data simultaneously, providing information to remote management and local maintenance at the same time.

FRAUNHOFER IGD: THE INTERNATIONAL LEADING INSTITUTE
FOR APPLIED RESEARCH IN VISUAL COMPUTING

CONTACT:

Dr.-Ing. Mario Aehnelt
Head of Competence Center Visual Assistance Technologies

Fraunhofer Institute for Computer Graphics Research IGD
Joachim-Jungius-Straße 11
18059 Rostock, Germany

Phone: +49 381 4024-100
Fax: +49 381 4024-199

mario.aehnelt@igd-r.fraunhofer.de
www.igd.fraunhofer.de



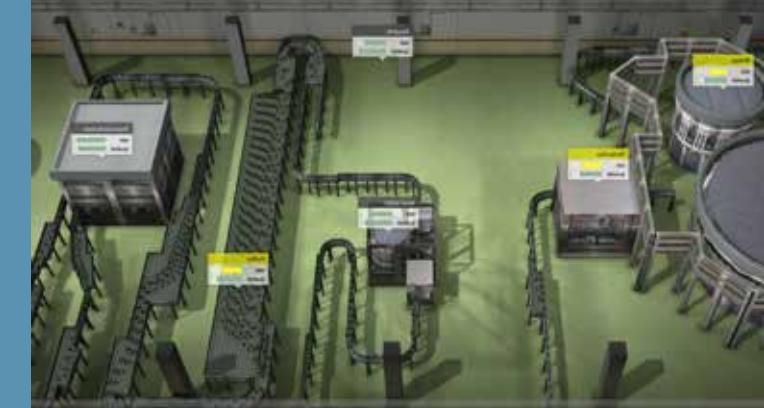
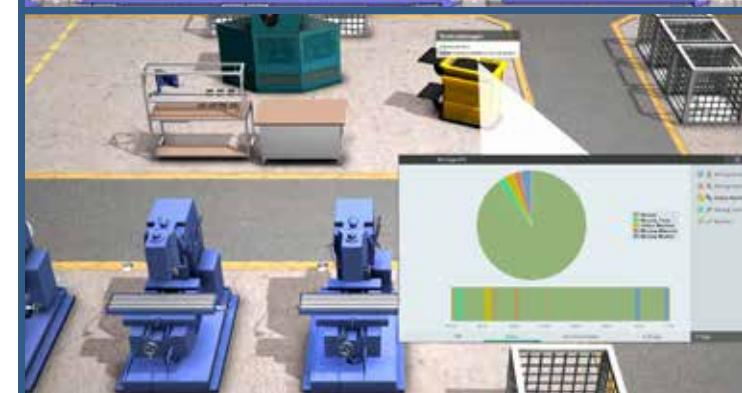
www.igd-r.de/plantathand3d_en



Quick analysis and availability of key performance data is fundamental for efficient business management. Real-time analysis of data, compiled from several independent systems, improves responsiveness - deviations are identified and acted upon far more efficiently. This is assuming that key performance data allows for gleaming insights into the company. Most of the time, though, key performance data is rather abstract, without any tangible references towards the business or production environment.

Localization of Data

Plant@Hand3D is closing this gap. Instead of just presenting key performance data to the user, it links them with a virtual 3D model of the production environment, creating a visual relation between the data and the actual environment. Information is visually localized, referencing either its point of origin or another point of interest. The reference to the actual environment allows for a more intuitive understanding of information and leads to faster response times and decision making, something almost impossible with purely abstract data presentation.



Interaction

Being a multitouch control station, Plant@Hand3D offers interactive access on all gathered information. To accomplish this, Plant@Hand3D links the data from any available production planning, data management, ERP, MES, PDM or ECMS system, in order to provide any information on machines, products, and orders 24/7, either as short information located directly at the machine or as detailed information in an extra window.

Multiple displays for multiple users

The size of the control station allows for multiple users to interact with the system at the same time (e.g. for meetings or conferences). Additionally, the detail windows can be duplicated onto other devices for a cleaner overview or to share information (and even system functionalities) between remote users. This offers the possibility for real-time collaboration on one and the same data.