

TotalVision® provides an unparalleled display of real time process information.

Custom graphics, built using dynamic objects from our extensive library, make it easy for the operator to control the process, enter information, and interact with sequence programs. Standard Operating Procedures, maintenance records, and other information in desktop application formats, including web pages, are accessible from the process graphics.

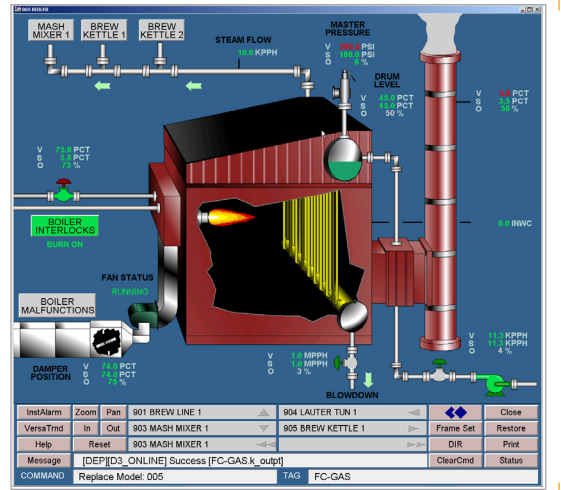
TotalVision allows you to build custom vector graphics and zoom on any object with complete detail and no pixelization. With an extensive library of objects and models, you can quickly drag objects in the editor to build custom graphics. If you need to globally change an object behavior, just change it in the library version. Then, the next time an operator calls up a graphic with the library object, the system will automatically load the latest version. TotalVision keeps all your graphics current with minimal effort.

Custom Graphics

TotalVision provides a complete customer-oriented graphical human-machine interface to the process. The standard D/3® displays are complemented by the custom TotalVision graphics which provide both a detailed view of the process and interactive tools to control the process.

TotalVision is a state-of-the-art graphics package with an extensive library of pre-defined objects having built-in dynamic behavior. Some of the many features of TotalVision include:

- Graphical object and dynamic behavior embedded as a single entity with input and output behavior
- Inheritance: any graphic or "Model" can be included in another graphic. Included models inherit parent behavior
- Control of almost every object attribute, including size, position, fill color, edge color, rotation, visibility, etc.
- Ability to modify all the standard objects in the supplied libraries or create variations of the original objects
- Network-wide automatic updates of any graphic
- Client-server based architecture with Process Data (Open Systems Foundation DCE-based Servers)
- Smart Graphical Object Technology allows the specification of single data source for multiple field names (object oriented)
- Vector-based TotalVision graphics retain their original quality at any zoom level giving an operator more flexibility to optimally arrange the desktop to control the process
- User defined buttons display popup models, facilitate navigation, provide easy access to trends, logic diagrams, help screens, or HTML documents and simplify operator interactions
- Troubleshoot devices from popup Master Device graphical logic diagrams saved as TotalVision graphics from the Master Device Builder



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- Click on the InstAlarm button to create a filtered view of alarms showing all tags on the current graphic or click on the VeraTrend button to show a trend of the selected tag

Information Linking

Command buttons in TotalVision graphics can launch common applications like Microsoft Word, Excel, and Web Browsers. Users can view Standard Operating Procedures, Material Safety Data Sheets, equipment specifications, maintenance records and other information with the click of the mouse. And, this information can be maintained by anyone familiar with office applications.

Model Components

A TotalVision Model is a collection of objects which graphically represent real time process data or other information. TotalVision models consist of:

- Primitive Objects - lines, circles, rectangles etc.
- SGOs - Smart Graphical Objects that contain one or more primitive objects with predefined dynamic behavior built-in
- GISMOs - Graphical Interactive Screen Management Objects that produce an action based on an input event such as a mouse click or a key press
- Graph objects - submodels that display XY or trend plots of process data
- Other models - submodels that are included in another model. These can be individual SGOs and GISMOs or combinations of SGOs and GISMOs



Creating Graphics

Standard libraries provide the starting point for creating custom process graphics. To use a library object, the designer selects the object from a palette and drags it with the mouse to the main editing window. Next, the designer edits the object's properties and associates the object with one or more tags from the process database so that the object's predefined behavior is linked to process information.

TotalVision® links the dynamic objects found in the model to the process database using one or more DCE-based data servers. When using the standard OPC data server, TotalVision can display OPC and D/3® information together on the same screen. Users can also easily create custom data servers using a tool kit for integrating existing legacy applications, e.g., quality systems, with TotalVision.

Submodels

A submodel is a model used in another model. When a submodel is incorporated in a parent model, the submodel is referenced in the parent model. As a result, all top level models that refer to the submodel are updated when the submodel changes and the top level model is re-registered. This feature ensures everyone is looking at the latest graphics.

TotalVision Model Compiler

The TotalVision Model Compiler validates graphical models, verifies each dynamic link to the process database and optimizes each graphic model. It then registers the model in the Model Registry.

Model Registry

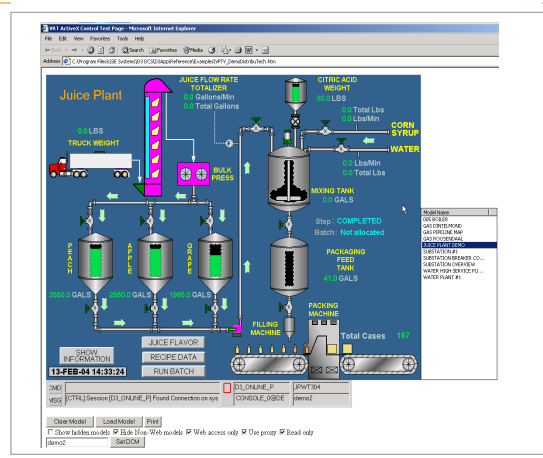
The Model Registry, using DCE technology for client-server operation across the network, copies and synchronizes models for all nodes running TotalVision graphics.

Runtime Callback Functions

Callback functions extend the capability of TotalVision beyond the standard scripting language, enabling almost any imaginable feature in the operator interface. The D/3® product contains a powerful set of built-in callback functions, and users may write their own.

TotalWebVision™

TotalWebVision uses common Web browsers and the customer's intranet to display dynamic TotalVision® graphics. Combining this functionality with TotalVision's ability to display data from multiple plant sites, it provides a view of critical enterprise information from anywhere in the world. TotalWebVision is an ActiveX Control that enables you to display TotalVision graphics inside Web browsers, desktop



TotalWebVision™

applications or development tools that are compliant with Microsoft's Component Object Model (COM) standards and OLE (Object Linking and Embedding) Automation technology.

In an intranet setting, TotalWebVision makes it easy to monitor the operation of a single plant or all plants worldwide. Instead of preparing time consuming reports that contain only historical data, utilize the real-time information in your D/3 control systems and your TotalVision graphics to create dynamically updated views of production information, equipment utilization, critical plant alarms and problem areas.

TotalWebVision can be used to:

- Build Web pages "on the fly" that display dynamic, interactive real-time data on corporate intranets rather than static plant information
- Use common desktop applications to create corporate-wide displays and reports or create custom applications using Visual Basic or other programming development tools
- Troubleshoot plant problems (e.g., e-mail documents, containing live views of plant problem areas, to technicians)
- Provide dynamic equipment information and actual historical trends in a format that can be used by process operators, engineers, managers and any other personnel who need real-time information to make informed decisions
- Allow application designers to choose which graphics are made available to the TotalWebVision displays. TotalWebVision displays may be set to "read only" or have "read/write" privileges. All operator actions performed via TotalWebVision are logged to the customary D/3® history files

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