

Publishing Interactive 3D within Adobe PDF

Bentley's **MicroStation** includes integrated publishing to Adobe PDF, the dominant standard for electronic deliverables in AEC. Now, MicroStation V8 2004 Edition can include embedded 3D models in PDF documents, greatly increasing the ability to convey complex three-dimensional designs. MicroStation support for PDF makes it easy for **Industrial and Process plant organizations** to establish a PDF-based electronic sharing and delivery process.

Once a 3D PDF document has been created from MicroStation, it can be opened with Adobe Acrobat or Reader 7 for interactive viewing. (If a 3D view is not visible at right, you do not have the latest version available. [Click here to download Adobe Reader 7.](#))

Display Control

Standard navigation tools are available through the 3D Toolbar. The Manage Views pull-down recalls MicroStation Saved Views. These views can be selected at any time or navigated to from **bookmarks** in the document. For example, a view of the **tank insertion** can be accessed to examine clearance issues.

A set of tools on the toolbar allow the user to control the geometry display. Use the **Select** tool to select geometry – hold down the shift key while selecting to add geometry to the selection. Use the **Hide** tool to hide the selected geometry or the **Isolate** tool to hide everything that is not selected. The **Show** tool will redisplay the hidden geometry.

A set of options on the right click menu allow the user to independently control the display mode of the scene and selected geometry independently. Options include **Shaded**, **Illustration**, **Transparent** and **Shaded Illustration**.

Animation Control

Animation scripts are controlled by selecting the Play/Pause tool. The left and right arrow keys can be used to speed or slow the animation speed and the backspace key will reverse the direction. The animation can also be paused with the `<Escape>` key and while paused, the user can step forward or backwards with the left and right arrow keys. Note that it is possible to use the view navigation tools while the animation is playing.

Links and JavaScript can be added to the document to customize the animation playback. For example, click to move directly to key points in the animation such as the **tank pickup** or **tank insertion**, click again to **restart** the animation.



Using Interactive 3D Models within PDF for Your Process Engineering Projects

3D PDF will empower all project participants in process plant workflows to publish all the information required to be exchanged without ambiguity, using the power of 3D models to portray what a thousand words cannot. Commercially, this will mean reduced procurement costs and reduced total cost of ownership. Shorter project timescales are achieved by enabling all participants to share input and avoid costly problems.

You can interactively view shaded, three-dimensional models and animations.