

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 AEC organizations to establish a PDF-based electronic sharing and delivery process.

Using 3D in PDF within Civil Engineering Workflows

An important step in many engineering projects is gaining approval from public officials and their constituents. Often this involves answering questions about project aesthetics such as "What is it going to look like when complete?" or "How will the proposed construction affect the quality of existing scenic viewsheds?" Such inquiries can be addressed by including an interactive 3D model of the proposed construction in a PDF document. Since nearly everyone has access to **Acrobat Reader 7.0**, the information can be disseminated widely and very cost effectively.

In this example, an aerial photograph has been draped over a digital terrain model of the proposed site to produce a background for a project proposal. Saved views within the drawing can be accessed through **bookmarks** or links such as the **hospital from the west** or the **hospital northeast entrance**.

The model includes a predefined navigation simulating a **drive through the model**. At any point along the drive, the user can **reverse direction** or **pause** and use the viewing tools to navigate freely within the model. The **walk** tool is particularly useful for taking an unguided stroll through the model before **returning** to the scripted path.



With 3D within PDF, you can interactively view shaded, three-dimensional models and animations.