



**Adobe<sup>®</sup>** Acrobat & PDF

# Standardizing on PDF for Engineering

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August 2005



# Agenda

- **PDF as a Standard**
- **Adobe & Bentley**
- **Working with Acrobat & Reader 7**
  - Create & Combine PDFs
  - Review PDFs
  - Secure PDFs



# PDF vs. Acrobat Versions

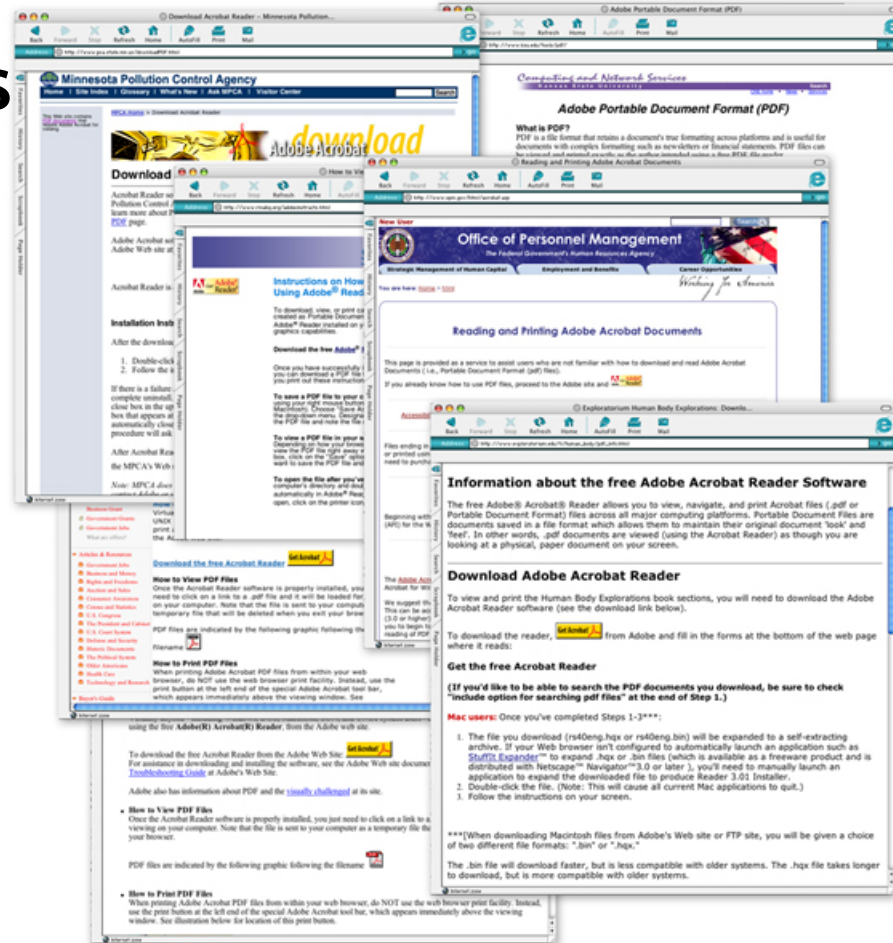
- **PDF: Public Specification**
  - [http://partners.adobe.com/public/developer/pdf/index\\_reference.html](http://partners.adobe.com/public/developer/pdf/index_reference.html)
- **Acrobat: Adobe Product**
  - <http://www.adobe.com/products/acrobat/main.html>

PDF	Acrobat
1.6	7.x
1.5	6.x
1.4	5.x
1.3	4.x
1.2	3.x

# Adobe PDF: It's Everywhere



- 750 million licenses of Adobe Reader
- 12 million units of Adobe Acrobat<sup>®</sup> sold worldwide
- 675,000 links to download Adobe Reader



# PDF: Universal Endorsement

- > 2,400 government agencies
- 2 million PDF documents on .gov external Web sites
- 30+ states have their drawings available for download as PDF
- > 1,800 solution partners
- Top PC manufacturers
- Included with major Linux OS






# PDF Subsets Address Specialized Needs

- **PDF/E : PDF for Engineering**
  - Exchange of complex technical documents for architecture, engineering, construction, manufacturing, and geospatial industries
- **PDF/A : PDF for Archiving**
  - Reliable file format for archiving and preservation
- **PDF/UA : PDF for Universal Accessibility**
  - Defines the attributes of PDF files to enhance their ability to work in conjunction with assistive technologies
- **PDF/X : PDF for eXchange**
  - Predictable printing of digital files anywhere in the world



# PDF for Engineering Documentation (PDF/E)

- Tailored for complex engineering documentation used in manufacturing, AEC, and geospatial; subset of Adobe PDF 1.6
  - Addresses primary areas of concern:
    - Accurate and predictable document behavior
    - Review and commenting support
    - Including complex 3D and metadata in PDF
  - Participants include Adobe, Bentley, Solidworks, Autodesk, Hewlett Packard, Océ, Intel, US Army Corps, NGA, UGS, PTC, Boeing, Honeywell
  - Working group led by AIIM ([www.aiim.org](http://www.aiim.org))
  - ISO New Work Item (NWI) approved June, 2005; open ISO standard expected end of 2006
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# PDF for Archival Documentation (PDF/A)

- **Open ISO standard specifies the use of PDF for the long-term preservation of compound documents as electronic data; based on Adobe PDF 1.4**
- **Addresses primary areas of concern:**
  - Offers consistent, long-term retrieval and rendering
  - Includes document metadata for search and retrieval
  - Engineered for reliable migration and future compatibility
  - Developed and maintained by PDF/A working group
- **Based on needs of and includes government and industry participants (Adobe, HP, Xerox, Callas, Global Graphics, IBM, IRS, US Courts, etc.)**
- **Managed by AIIM ([www.aiim.org](http://www.aiim.org)) and NPES**
- **Vendor support to be announced shortly (draft support already included in Acrobat 7.0 Professional)**
- **Working group starts on next version of standard in late June 2005, expected next release within 24 months**



## \*.u3d format

- **W3C Standard**
- **Approximately 7 months old**
- **<http://www.3dif.org>**
- **Championed by Intel, Adobe, Bentley, Right Hemisphere and others**
  
- **Demonstration**



# Adobe Reader Platforms

- **15 localized versions**
  - Windows
  - Macintosh
  - Linux
- **Additional languages (Middle Eastern) by WinSoft**
- **Adobe Reader for Pocket PC 2.0**
- **Solaris, Palm, Symbian and more to come...**



# Bentley & Adobe Partnership

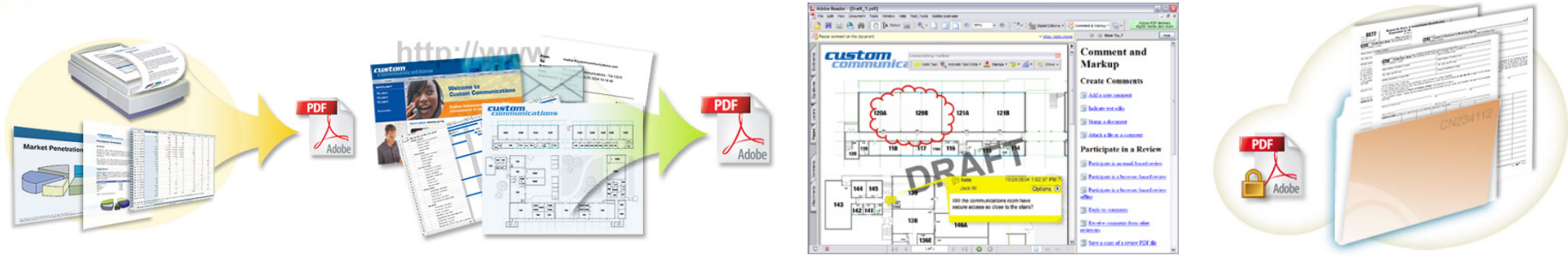
- **Strong Partnership for over 2 years**
- **Developing capabilities that meet your needs**
  - Adobe
    - Acrobat 6.0 Professional
    - Acrobat 7.0 Professional
  - Bentley
    - Adobe PDF functionality introduced with Microstation V8 2004
    - 3D in PDF capabilities from Microstation 8.5.2
    - Integration with the Acrobat SDK's so that you can seamlessly create Adobe PDF from not only your DGN or DWG files, but also your MS Word or Excel files from the Bentley environment



# Bentley & Adobe Partnership

Jointly we offer project team members the ability to *communicate* and *collaborate* using Adobe PDF files that contain drawings, 3D models, and project information.

# Acrobat 7.0 Professional



**Create and share documents reliably**

**Combine Multiple files into a single document**

**Easily gather and track feedback**

**Control access to a document**

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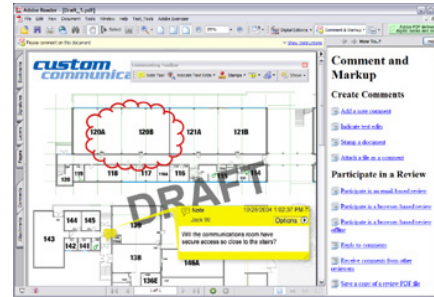
# Create & Combine PDFs

- **Bentley MicroStation creates Intelligent PDF**
  - Layers
  - Scaling
  - Search
  
- **Combine multiple document sizes and styles in one PDF for review, archive, delivery**



- **Demonstration**

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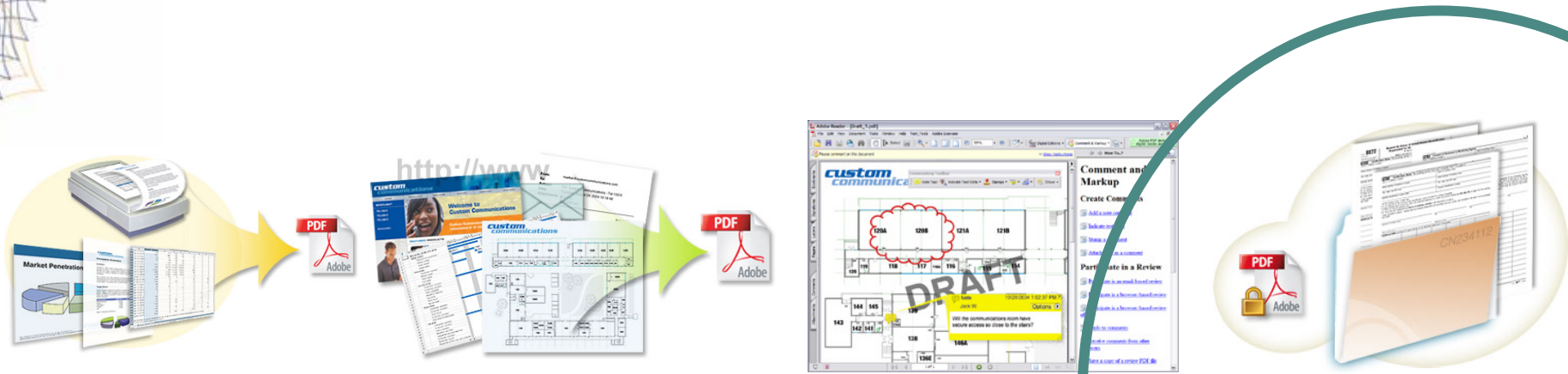
# Review PDFs

- **Send PDF for review**
- **Allow Adobe Reader 7 users to participate in a review**
- **Collect comments**



- **Demonstration**

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# Secure PDFs

## Document Control

**Since Adobe Acrobat 2.0 - 1994**

- Confidentiality
- Rights Management
- Access Control

## Digital Signatures

**Since Adobe Acrobat 4.0 - 1999**

- Authenticity
- Integrity
- Non-repudiation



# Round Trip Signatures



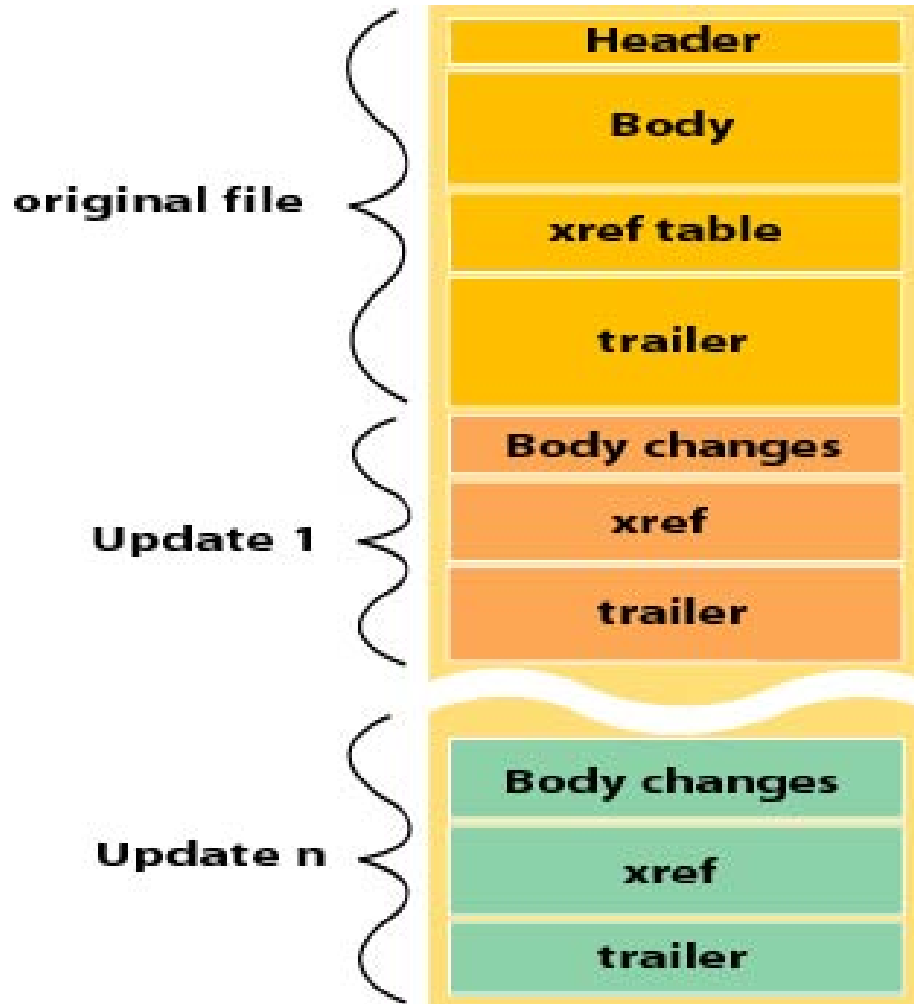
- Author should always sign forms requiring recipient signatures
- Recipient can verify that form is authentic
- Author can then verify that their original form has not been modified and that recipient signed form with their supplied data – *important when submitting data to enterprise systems!*
- Documents can be routed for multiple recipient signatures



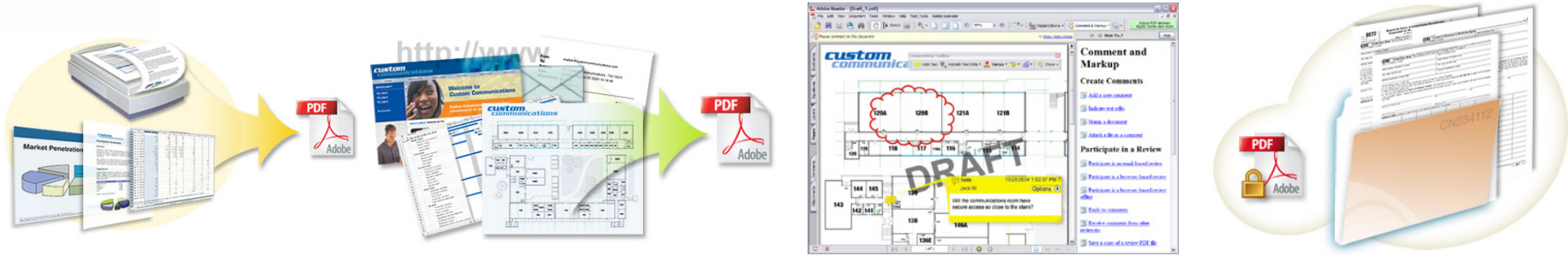
# PDF After the First Save



# PDF After Update



# Acrobat 7.0 Professional Demonstration



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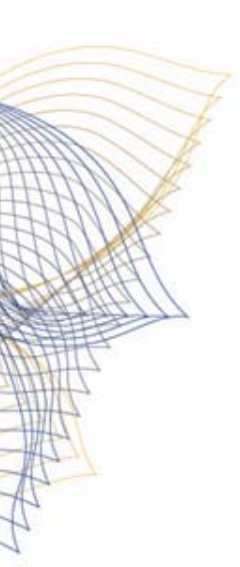


# Extending Acrobat

- **Developing FOR Acrobat**
  - C-based Plug-in architecture
- **Developing WITH Acrobat**
  - JavaScript support for Forms, Multimedia, whatelse?
- **Developing AROUND Acrobat**
  - Communicate with Acrobat from your application
  - Embed Acrobat/Reader in your application
- **Developer Resources**
  - <http://developer.adobe.com>



# Questions?



**Better by Adobe.™**