

# Access to PDF: Developments in the Adobe Acrobat Support of Assistive Technologies

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# What Is Covered?

- Engineering support of assistive technology partners.
- Acrobat's accessibility APIs.
- PDF dynamic forms.
- PDF on the web.
- PDF Portfolios.
- Questions and answers.

# Engineering Support of Assistive Technology Partners

- Adobe is committed to supporting accessibility for all users of its products and services.
- Close collaboration with assistive technology partners.
- Contributions to key industry-wide accessible technology workgroups.

# Engineering Support of Assistive Technology Partners

- Accessibility pre-release program:
  - Get development builds of Acrobat and Reader before new versions are released to the public.
  - Insure compatibility with existing assistive technologies.
  - Report bugs and feature requests related to accessibility.

# Engineering Support of Assistive Technology Partners

- PDF Accessibility API Reference, under the Acrobat SDK.
  - How AT developers can use Acrobat MSAA and IPDDom interfaces to provide access to PDF content.
  - [http://www.adobe.com/devnet/acrobat/interapplication\\_communication.html](http://www.adobe.com/devnet/acrobat/interapplication_communication.html)

# Acrobat's MSAA Support

- **WM\_GETOBJECT message handling**
  - OBJID\_CLIENT := generic IAccessible object.
  - OBJID\_CARET := IAccessible for the selection range in text fields.
  - OBJID\_NATIVEOM := IPDDomNode interface for the document root node.

# Acrobat's MSAA Support

- **Non-MSAA roles**

- **Page**

```
pvarRole->vt = VT_BSTR;
```

```
pvarRole->bstrVal = SysAllocString(L"Page");
```

- **Signature**

```
pvarRole->vt = VT_BSTR;
```

```
pvarRole->bstrVal = SysAllocString(L"Signature");
```

# Acrobat's MSAA Support

- **Non-MSAA state**
  - Required field
  - ACC\_STATE\_REQUIRED = 0x80000000

# Acrobat's MSAA Support

- **Text Field Caret Tracking**
  - **Caret offset:**
    - IAccessible::get\_accDescription
  - **Selection range:**
    - IAccessible::get\_accHelp

# Acrobat's IPDDom Interfaces

- Complex table layouts.
- Document pagination and language information.
- Semantic text units like word or line.
- Select document content.
- Position information in groups of elements or fields.
- Different types of coordinates for document elements.

# Acrobat's IPDDom Interfaces

- **Defined in AcrobatAccess.idl:**
  - IPDDomNode : IDispatch
  - IPDDomNodeExt : IUnknown
  - IPDDomElement : IPDDomNode
  - IPDDomDocument : IPDDomElement
  - IPDDomWord : IPDDomNode
  - ISelectText : IUnknown
  - IPDDomGroupInfo : IUnknown
  - IPDDomGlobalOptions : IUnknown

# Acrobat's Support for IAccessible2 Interfaces

- Acrobat will support IAccessible2 interfaces to allow rich information about both PDF forms and PDF Portfolios to be made available to assistive technologies.

# Accessibility Workgroups

- Linux Foundation IA2 Working Group.
- Accessibility Interoperability Alliance (AIA, ATIA).
- PDF Universal Access Working Group (PDF/UA).

# PDF Dynamic Forms

- XFA dynamic documents.
- XFA is an XML-based language for forms creation and rendering.
- Forms that are dynamically modified based on user input.
- Fields can be added or hidden on-the-fly.
- Fields value can be populated automatically as the user enters data.

# PDF Dynamic Forms

- PDF dynamic forms demo.

# PDF on the Web

- More than 200 million PDF files on the web.
- PDF documents such as magazine articles, reference manuals, and forms.

# PDF on the Web

- Reading a PDF from the web in standalone Acrobat.
- Reading a PDF embedded in a web page.

# PDF on the Web

- Reading PDF from the web demo.

# PDF Portfolios

- Multiple files assembled into an integrated PDF unit.
- The files in a Portfolio can be in different formats and created in different applications.
- Users can open, read, edit, and format each file independently of the other files in the Portfolio.

# PDF Portfolios

- Add or remove a file easily, without having to find and select all the pages that originated from the file.
- Preview files without having to open them in their native applications.
- Change an individual file within the Portfolio without affecting the other files.
- Share a Portfolio with others and be sure that they are getting all the component parts.
- Add non-PDF files to an existing Portfolio without converting them to PDF.
- Independence from source files.
- Move a Portfolio anywhere on your computer or network without any risk of losing or disconnecting its components.
- Include the same file in multiple Portfolios.

# PDF Portfolios

- Reading Portfolios in legacy platform mode.
- Reading Portfolios in Flash-based navigators.

# PDF Portfolios

- PDF Portfolios demo.

# PDF Portfolios

- Creating a Portfolio

# More Information

- PDF Accessibility API Reference  
[http://www.adobe.com/devnet/acrobat/interapplication\\_communication.html](http://www.adobe.com/devnet/acrobat/interapplication_communication.html)
- PDF Portfolios  
[http://help.adobe.com/en\\_US/Acrobat/9.0/Professional/WSA2872EA8-9756-4a8c-9F20-8E93D59D91CE.html](http://help.adobe.com/en_US/Acrobat/9.0/Professional/WSA2872EA8-9756-4a8c-9F20-8E93D59D91CE.html)
- Adobe Accessibility web site  
<http://www.adobe.com/accessibility/>

# That Concludes Our Remarks

- Questions and Answers?
- Thank You!