Real World OpenDoc™

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Component Sessions

- Starting with OpenDoc

- Cyberdog Architecture
- Real World OpenDoc
- Starting with Cyberdog
- ODF: Easy OpenDoc
- CyberServices
- Netscape Plugins

Real World Means...

- **No slideware**
- **Demos of shipping software**
    - **or soon to be shipping -**
- **Less Architalk - More Coderock**
- **Discussion of actual developer issues**
    - from shipping software or commercial software under development

Component Software Today

- **Component Software Landscape**
  - Apps supporting proprietary plugins
  - Apps containing/using parts (standard plugins)
    (aka Container Apps)
  - Part Editors containing OpenDoc parts
    (aka Container Part Editors)
  - Apps converted to part editors (1:1)
  - Small, special purpose apps converted to part editors
  - Apps factored out to multiple part editors (1:n)
  - Proprietary plugins

- **All of these make sense**
  - The best choice for you depends on your situation and market requirements.

Component Software Today

- So, who is shipping/doing what?
- Just a few examples for illustration:
  - Apps containing/using parts (standard plugins)

    RagTime, ClarisWorks
  - Container Part Editors

    Cyberdog DocBuilder, Digital Harbor WAV
  - Apps converted to part editors (1:1)

    Netscape
  - Small, special purpose apps converted to part editors

    dTF database toolkit
  - Apps factored out to multiple part editors (1:n)

    Spyglass, Cyberdog

- Obviously not a comprehensive list!
  - Check **http://www.opendoc.apple.com/** for more.

Demo

- Cyberdog DocBuilder

Container Apps

- History
- Products & tools today
- Minimum steps to be one
- Where to go next

Container App History

- OpenDoc design focused on pure components
- CALib designed as glue
  - procedural apps <-> OpenDoc
- Implementation limped along
  - little support, Apple focus was on “pure” OpenDoc stuff
- Claris came to a kitchen
  - got ClarisWorks+CALib working in < 2 days
- Claris got it working well
  - Several weeks and long 6prime phone calls later

CCL & OpenContent™

- **Technology sharing agreement**
  - Claris & 6prime decided to make available their rewritten version of CALib to developers
  - Claris calls it Claris Container Library (CCL)
  - 6prime calls it OpenContent™
- **WWDC ClarisWorks demo**
  - ClarisWorks with:
    - Cyberdog parts
    - ResNova Java Aplet runner running tumbling duke
    - Cyberdog Netscape Plugin part with Shockwave plugin
  - CCL binaries & source on DR5
- **OpenContent™ SDK DR1**
  - Released at WWDC by 6prime
  - Code, libraries, & tools for Container Application development..

Demo

- ClarisWorks with OpenDoc

Products & Tools

- **Products**
  - RagTime (B&E Software)
  - ClarisWorks
- **Tools/Development**
  - DR5 has first release of CCL source
  - OpenContent™ DR1
    - Updated container library source
    - CodeSampler™ document for custom proxy part for your app.

Minimum Steps

- Be ready for foreign code
  - running in your process
- Handle non-native windows
- Provide and share the menubar
- Drag & Drop chaining to OD
- About box CyberItems
  - see Getting Started with Cyberdog session

Where to go next...

- Make sure you have both OpenDoc DR4 and DR5 CDs

- MacTech Magazine articles
  - 1/96 "OpenDoc: Contain Yourself"
  - 5/96 "OpenDoc: Rethinking the Interface"

- http://www.6prime.com/containerapp.html

CodeSampler authoring

- Developers can make their own CodeSampler documents
  - Replicate your custom source base
- Can be used for any source base
  - Not just for OpenDoc part editors
  - AppsToGo app framework uses it.
- Use for in-house development
- Package up custom samplecode
  - for internet distribution, etc.

CodeSampler authoring

- **Acquire necessary tools:**
  - **CodeSampler app (Cdog SDK, CW9, OC™ DR1)**
  - **ATGEdit - (OD DR3, Developer Tools CD)**
- **Create starter project**
  - **Don't change company name!** (Unless you "know" what you're doing)
- **Export customizations document**
- **Make your changes**
- **Clean out binaries (xSYMs etc.)**
- **Drag project folder & customizations document to CodeSampler**

Real World Issue 1

Container Part Editors & FrameShape Negotiation

- Parts may do it when their `DisplayFrameAdded` is called
- Typically this reenters your code,
  - with an unknown embedded frame!
- Solution: store frame creation info
  - e.g. shape, ext. xform, how created
- Recognize frame creation in progress and allow/disallow appropriately.

Real World Issue 2

Globals in Parts

- Three "Global" Contexts:
  - Systemwide (Undo stack)
  - Per process (editors' CFM globals)
  - Per part (fields in Part object)
- What goes where?
  - **Systemwide**:optimally all shared readonly resources, tables...
  - **Per process:** shared "app" structures: palettes etc.
  - **Per Part:** anything to with the content of the part
- For more, see 6prime's tip of the week

  http://www.6prime.com/tipofweek.html

Testing Tools

- Acquire an OpenDoc DR4 cd
- Do a find on "6prime"
- Install the part editors inside
  - NameDropper & exerPart
- Use exerPart to test your editor's implementation of the Part API

Note: this version has some known bugs:

1. Ignore problems with CloneInto method
2. It does not test container part editors very well
3. Only run a test once with a testing document

- Use nameDropper to test your container editor's robustness

Conclusion

- Consider component support options
- OpenDoc is not just desktop content
  - Cyberdog proved that
- Start Container App development
- Write a simple part
  - that does one thing really well
- Test your container or leaf part
- Ship it!

The power to be your best

The power to be your best

Slide Title

- **Item 1**
- **Item 2**
- **Item 3**
  - **Subitem 1**
  - **Subitem 2**
  - **Subitem 3**
    - **subsubitem 1**
    - **subsubitem 2**
    - **subsubitem 3**