What’s New in ColdFusion 5
- Easy, Reliable Upgrade
- Increased Productivity
- New Business Intelligence Capabilities
- Easy Management
- Enhanced Performance
- Other Enhancements

Easy, Reliable Upgrade
- Most extensive CF beta program in history
  - Current code is backward compatible
  - See release notes, “documentation update”, “faq” for more
- Pre-built example applications demonstrate new features
  http://<servername>/cfdocs/examplehome.cfm (if installed)

User-Defined Functions
- Increased Productivity
- Write code once, re-use it within template
- Can pass data to, return data from function
  - New var and return statements available within CFSCRIPT
www.cflib.org

- CFLib.org Common Function Library Project
  - An open source resource for useful UDF’s
  - Several categories, more than 250 UDF’s already
    - String Manipulation (formatting, list processing)
    - Data Manipulation (query result processing)
    - Security (string hashing)
    - Math (geometric, statistical, scientific, general)
    - Date, Financial, FileSys, Science, & Utility now added
- Let’s run some
- Also Granularity.com’s UDF library for XML
  - http://chapterhouse.granularity.net/udf/xml/
- Also see the Macromedia Developer’s Exchange

Easy Data Integration

- Easily integrate information from multiple data sources

Query of Queries

- Formally called “Query of queries”
  - Referred to as CFSQL for a time, but no longer
- Increase query performance by querying result sets in memory
- Can perform Select, Join, Union, aggregate functions, and more
- Let’s see a simple example
  - Qoq_Simple.cfm

Combine Any Result Sets

- Lots of possibilities:
  - Query disparate datasources
    - Join Access and Oracle queries
  - Query previous query
    - Subset or summarize a previous query, for instance
  - Query cached queries
    - Subset a cached query
    - Join a cached lookup table
    - Can query both variable-cached and query-cached results
  - Query output of any tag that creates resultset

Query a Previous Query

```cfc
<CFQUERY NAME = "GetSalaries" DATASOURCE = "CompanyInfo">
  SELECT FirstName, LastName, Salary, Department.Dept_Name, Employee.Dept_ID
  FROM Department, Employee
  WHERE Department.Dept_ID = Employee.Dept_ID
  ORDER by LastName
</CFQUERY>

<CFQUERY DBTYPE = "query" NAME = "getavg">
  SELECT Dept_Name, AVG(Salary) AS AvgSal FROM GetSalaries
  GROUP BY Dept_Name
</CFQUERY>

<CFOUTPUT QUERY="GetSalaries">
  <B>#FirstName# #LastName#</B> #dept_name# #dollarformat(salary)#
</CFOUTPUT>

<CFOUTPUT QUERY="getavg">
  <B>#dept_name#</B>: #dollarformat(avgsal)#
</CFOUTPUT>
```

• New Business Intelligence Capabilities
Charting and Reports

• Charting Engine
  – `<CFGRAPH>` Interface
  – 12 common business charts
  – High-performance options
• Reporting Integration
  – `<CFREPORT>` Interface
  – Reuse existing reports
  – Supports Crystal Reports 8

Charting Details

• Supports Bar, Line, and Pie charts
  – Flash, JPG, and PNG formats
  – Many options to control look and feel
• Drill-down supported as well (in flash format)
• Can graph any query result set
  – Remember, that’s more than just CFQUERY
• Can also graph non-query data, with CFGraphData

Let’s see installed example

Enhanced Verity K2 Search

• New Verity K2 Engine
  – Supports newer document types
  – Includes international language packs
  – Supports site spidering and more
• Increased Document Counts with K2 Server
  – 125,000 with Professional
  – 250,000 with Enterprise
• Out-of-Process Integration
  – K2 Server runs separately from CF Server
  – Increased performance
  – Can support indexing/querying multiple servers

Enhanced Legacy Verity Support

• Previously available Verity features still supported
  – Now known as VDK mode
  – All previous tags, admin interface remain the same
• Can support more document types
  – Including Office 2000, and more
• International Language Support pack (limited set)
  – No longer needs to be purchased
  – Support for more languages can be purchased
• CF now automatically locks Verity operations
  – Concurrent read/write operations on an index are protected from stepping on each other

Enhanced Administrator Interface

• Easy Management
  – New design, streamlined functionality
  – Multiple layers/tabs
• Online help
• Every change to admin configuration is tracked for reporting purposes
• Can now add custom features to administrator

Let’s take a look
App Analysis & Troubleshooting

• Log File Analyzer
  – Quickly diagnose server errors
  – Search multiple logs files simultaneously
  – Filter by keyword, threadID, time period, or severity

Server Reports

• Easily analyze performance
  – 8 reports on several CF statistics
  – Filter report by timeframe, date, interval
• Monitor administrator configuration changes
  – Track each change
  – Create snapshot report of current configuration

Advanced Application Monitoring

• Configurable Probes
• Scriptable Recovery
• Automatic Notification
• SNMP Integration

Monitoring Features

• Can set an unlimited number of probes
  – Built-in (some provided with CF, or any web page)
  – Custom (any command-line cmd or script)
• Can trigger almost any response
  – Something as simple as emailing the administrator
  – Restarting the server
  – Starting a more elaborate repair script
• Can monitor a remote server
  – Though not recommended, very useful for those with remotely deployed applications

Application Deployment Services

• Easily archive, deploy & restore entire applications

  ![ColdFusion Archive (CAR) File]

  Development  ➔ Testing ➔ Production ➔ Production 2

• Enhanced Performance
### A Faster CF

- Lab tests show a major improvement in performance
  - Up to three times faster on Windows and Linux, compared with ColdFusion 4.5
  - Up to 33% faster on Solaris (less dramatic due to improvements already made in 4.5)
- See Performance Brief
  - At Macromedia’s ColdFusion 5 Site

### Performance Enhancements

- Faster Page Requests Under Load
- Enhanced SMP (multiprocessor) support
- Automatic Memory Footprint Reduction
- Efficient Memory Utilization
- Available Hardware Load Balancing Integration
- Available Merant Wire Protocol ODBC Protocol Drivers

### Incremental Page Delivery

- Not a performance improvement
  - But increases apparent responsiveness
- CFFlush sends any output available at time of flush
  - or can send when x bytes generated
- Some issues to be aware of
  - See documentation
- Let’s see the installed example

### New/Enhanced Tags

- CFSaveContent
- CFObjectCache
- CFDump
- CFLOG
- New CFFTP Action attribute value: “Removedir”
- Various CFFORM enhancements
  - Let’s see the installed example

### More Additions

- CFINPUT and CFTEXTINPUT allow regular expressions for validation
  - VALIDATE="regular_expression" PATTERN=""
- GetHTTPRequestData() function
- GetException() function
- IsCustomFunction() function
- Dynamic Java Class Loader
- Merant ODBC Text driver
- Dynamic DB connections
Other Enhancements

- Studio "Tag Infusion Pack" at Macromedia Site
- Enhanced Examples on install
- Advanced Security Cache Enhancements
- Some new options can be disabled in Basic Security
  - Including support for Tag/attribute restrictions
  - Rather than previous "whole tag" restrictions
- Multiple Custom Tag directories
  - See Admin>Server>Extensions>CustomTag Paths
- Enhanced COM Integration
- Rearchitected CORBA support
- Support for SuSE Linux and Cobalt RAQ, XTR, and Qube servers
- ...to name a few

Problems Fixed

- Problems in previous release now fixed
  - Duplicate() function works as expected
  - Improperly formatted file in mail spool no longer causes all spool files to never be sent
  - "Disable database connection" in Admin now works as expected
  - CFFILE no longer converts spaces in file names to underscores
  - ... to name a few, and there are many more
  - See Release Notes under "Resolved Issues"

Some Issues to Note

- Some Issues to Note

Some Other Issues

- Several HotFixes available
  - See http://www.allaire.com/Handlers/index.cfm?ID=20371
  - Underlying applet used for CFForm tags (slider, tree, etc.) uses a signed certificate that expired 12/16/01
  - Macromedia coming up with new patch for that

Some Other Issues

- Enterprise doesn’t support Win98/ME
- Professional doesn’t support WinME
- See release notes, “documentation update” for more platform/OS issues
- Examples require that Admin “Variable Scope Locking” setting for “full checking” be turned off
- Examples using CFX datasource failed
  - Needed to uncheck “disable datasource” in Admin

Undocumented Problems

- Bug in CFGRAPH
  - If SCALETO attribute not specified, and a non-numeric value exists in the column being graphed, graphing server crashes
- HotFix Available for another bug
  - ColdFusion Becomes Unresponsive when Zeros Are Used in the cffgraph Tag (KB 22253)
- Studio Tag Upgrade has mistakes for CFGRAPH
  - Creates SHOWITEMLABELS
  - Should be singular
  - Tag Insight not creating closing tag
  - Offers VALUELOCATION="on bar"
  - Should not be a space
- WHERE clause string “matching” in QofQ is case-sensitive
  - Not documented anywhere I could find
Learning More

- Information spread over several documents!
- Documentation
  - New manuals ("Installing and Configuring", "Advanced Admin")
  - Bundled in print with CF server purchase
  - Installable as HTML with server
  - Available online as PDF at MACR CF5 site
- CF Admin Help
  - Not available in printed form
  - Some topics discussed only there
  - Can setup shortcut to point to:
    - http://<servername>/CFIDE/Administrator/help/cfadminhelp.htm

Learning Still More

- Several Resources on MACR CF Product Overview page
  - http://www.macromedia.com/software/coldfusion/
    - New Features Document
    - Upgrade Guide
    - System Requirements
    - FAQ
    - Edition Comparison Matrix
    - Performance Brief
    - Reviews and Awards
    - Release Notes
      - Updated version over those offered on CD & at overview site
      - Documentation Errata

See Also

- Evaluator’s Guide
- What’s So Great About User Defined Functions?
- Understanding Progress Meters in CF 5
- Simple Caching Techniques with CFSAVECONTENT

“CF 5 In Depth” Seminar

- Couldn’t cover all details in this brief overview
  - Despite offering several details
  - Gathered from the several resources and extensive testing
- Still more to cover, and many more details
  - Offering day-long seminar on-site, perhaps public
  - More new features, details on using features
  - More about solving problems not well-documented
  - Deprecated and Enterprise-only features
  - Lots more
- See attached flyer for details, costs, contact info

Contact Information

- Contact for follow-up issues
  - Email: carehart@systemanage.com
  - Phone: (301) 604-8399
  - Web: www.systemanage.com

- Also available for
  - Training (custom or pre-written)
    - CF, DB, Jrun/J2EE, Javascript, wireless, and more
  - Consulting (very short-term)
    - best practices, architecture, setup
  - Developer Group Mentoring