

A Paradigm Shift in Mainframe Management

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Disclaimer

- This presentation, in parts, discusses future direction & beta software
 - To save you from the 2 page legal disclaimer!
 - Inclusion of feature/function/product is by no means guaranteed and should not be relied upon
 - Any timescales alluded to are speculative and should not be interpreted as concrete delivery dates, inclusion is still not guaranteed

Session Agenda

- Where are we today?
- Changing the way the Mainframe is managed forever
 - Mainframe 2.0
- Chorus
 - The evolution of Mainframe 2.0
 - A look at the Workspace
 - The first role
 - Database Management for DB2

Where Are We Today?

Some Interesting Quotes

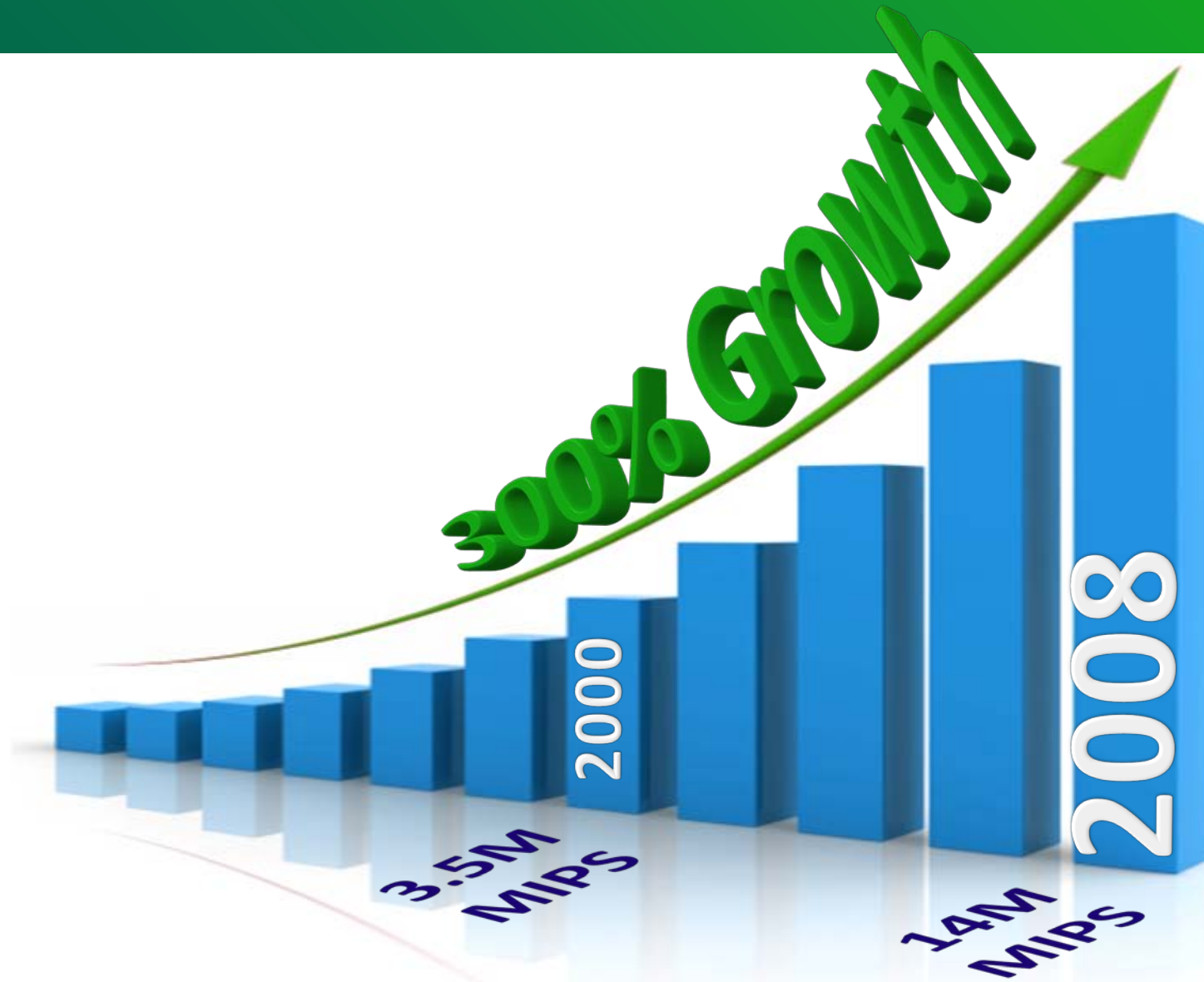
“The last mainframe will be unplugged on March 15, 1996.”

Stewart Alsop, 1991

“On December 31, 1999 at midnight, when the big ball drops and people are kissing in Times Square, the era of the mainframe computing will be over.”

Robert Cringely, 1992

The Mainframe Renaissance



But We Still Have Some Problems...

- ‘The Greying Workforce’
 - Many Mainframers are reaching retirement age
 - Enticing new people in
 - There are not enough places like this!
- Knowledge transfer
 - 80-90% of knowledge resides with the individual
- Managing the Mainframe is not always easy
 - Old fashioned, difficult to use interfaces
 - A wide range of knowledge is required
 - TSO, JCL, ISPF, JES, z/OS, DB2 etc. etc. etc.
- The Mainframe won't be going away anytime soon

Changing the Way the Mainframe is Managed Forever

1. THE MARKET

Mainframe Platform Drivers

- Business Growth
- Hardware Evolution
- Mainframe Virtues



2. THE CHALLENGES

Control Costs

- Do More...
- "...with less"
- "...with nothing"

Sustain Critical Skills

- Build next generation team dynamically
- On ramp for next gen is long and complex

Increase Agility

- Provision services faster
- Multiplatform data center
- Solve critical issues

4. THE PROGRAMS

Promises Made

Maximize Value

1

Simplify Management

2

Practical Innovation

3

Promises Kept

Customer Engagement
Technology Exploitation

Mainframe Software Mgmt
Mainframe Stack

Integration, Productivity,
and Insight

3. THE STRATEGY

Maximize
Value

Simplify
Management

Practical
Innovation

← Best in Class Quality, Support, and Customer Experience →

The Programs

Promises Made

**Maximize
Value**

**Simplify
Management**

**Practical
Innovation**

Promises Kept

Customer Engagement:

- Mainframe Value Program
- Customer councils
- Best Practices
- Training & Publications

Technology Exploitation:

- Specialty Engines
- Application Tuning
- Database Performance

1

2

3

- CA Mainframe Software Manager
- CA Mainframe Stack
- Interoperability Testing
- Health Checks

- Cross Enterprise Application Performance Mgmt.
- Risk and Compliance Management
- Development Environment Integration
- Workload Automation

Simplify Management:

CA Mainframe Software Manager (CA MSM)

CA Mainframe Software Manager - New Deployment - Windows Internet Explorer

http://uslca31.ca.com:29485/MSM/MSMMain.html#Open/Deployments/NewDeploymentWizard

CA Mainframe Software Manager

Logged in as: LUFDA02 (Log Out)

Software Status | Software Catalog | New Deployment | Settings

1 Introduction 2 CSI Selection 3 Product Selection 4 Custom Data Sets 5 Methodology Selection 6 System Selection 7 Preview

Introduction

Welcome to the CA MSM deployment wizard. This wizard will guide you through the steps required to deploy one or more products to one or more systems. Note: You can save your deployment at any step in this wizard.

Deployment Identification

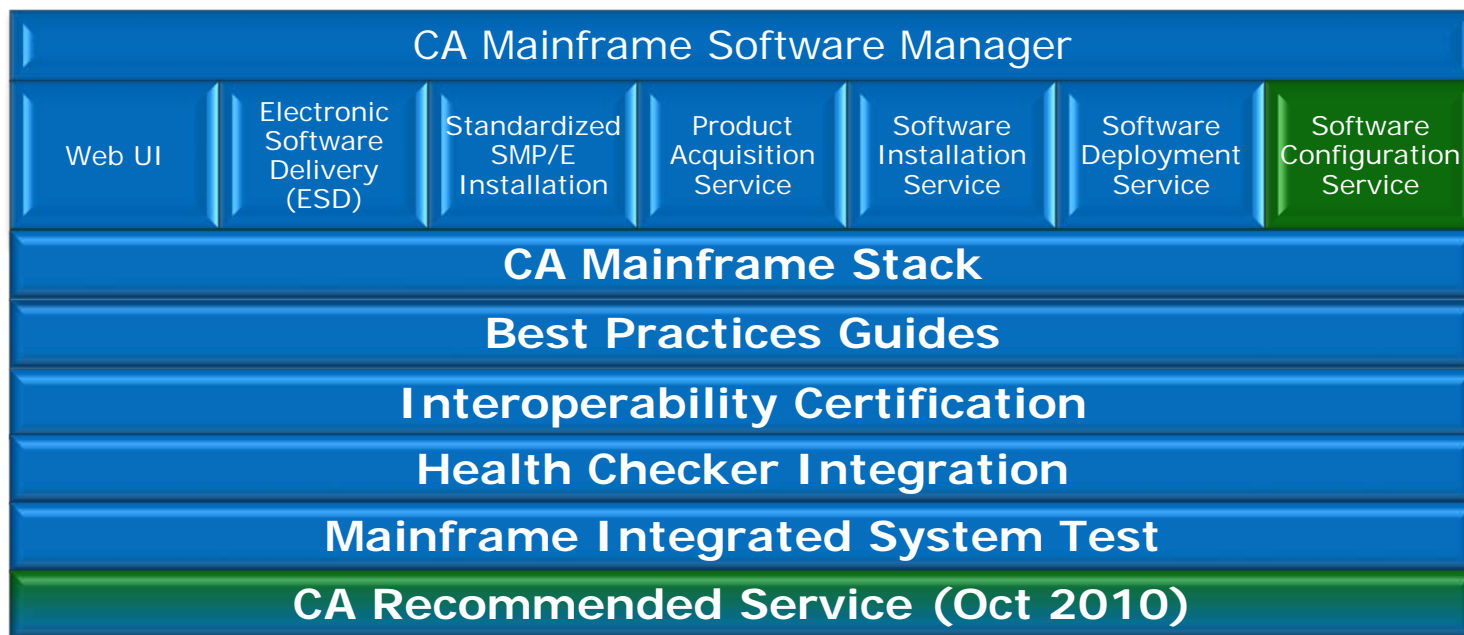
Name*: New releases for May

Description: Update CA product releases for May

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Install Shield[®] and Windows Update for the Mainframe
Dramatically simplifies software management activities
Significantly reduces installation times

Mainframe Software Management In May 2010



CA MSM Time Savings - Installation

Time to Install 10 Mainframe Applications*

Product	Mainframe Expert Install			Mainframe Novice Install		
	Traditional	With CA MSM	Improvement	Traditional	With CA MSM	Improvement
CA 1	36 min	9 min	4X	3 hrs 12 min	14 min	14X
CA Auditor	26 min	7 min	4X	2 hrs 22 min	8 min	18X
CA Datacom	1hr 14 min	6 min	12X	3 hrs 8 min	10 min	19X
CA JARS	37 min	5 min	7X	1 hr 11 min	6 min	12X
CA Librarian	28 min	2 min	14X	1 hr 13 min	6 min	12X
CA MIM	30 min	5 min	6X	1 hr 31 min	5 min	18X
CA OPS/MVS	36 min	6 min	6X	1 hr 50 min	7 min	16X
CA Parvalet	54 min	5 min	12X	1 hr 10 min	5 min	14X
CA SMF Director	40 min ¹³	5 min	8X	1 hr 10 min	6 min	12X

87% productivity gains for mainframe experts and 94% for novices!

Source: CA Technologies Lab Results



CA MSM Time Savings - Deployment

Time to Deploy 10 Mainframe Applications*

Product	To A Single Remote System			To Six Remote Systems	
	Traditional	CA MSM	Improvement	With CA MSM	Improvement
CA 1	0:05:00	0:05:45		0:05:45	26X
CA 11	0:03:32	0:03:32		0:03:32	30X
CA Cleanup - ACF2	0:03:22	0:03:22		0:03:22	24X
CA Copycat	0:03:15	0:03:15		0:03:15	25X
CA Deliver	0:05:36	0:05:36		0:05:36	14X
CA Endeavor	0:11:24	0:11:24		0:11:24	11X
CA NetMaster Suite	1:21:58	0:21:58	9X	0:21:58	9X
CA SYSVIEW	1:13:42	0:13:42	22X	0:13:42	22X
CA-TPX	0:43:00	0:11:01	6X	0:11:01	6X
CA-VIEW	0:58:00	0:06:19	9X	0:13:55	12X
Totals	9:03:00	0:33:55	16X	22:44:00	15X

93% productivity increase using CA MSM for Deployment

Deploy All products to one system 0:24:02
 Deploy All to six remote systems 1:28:25



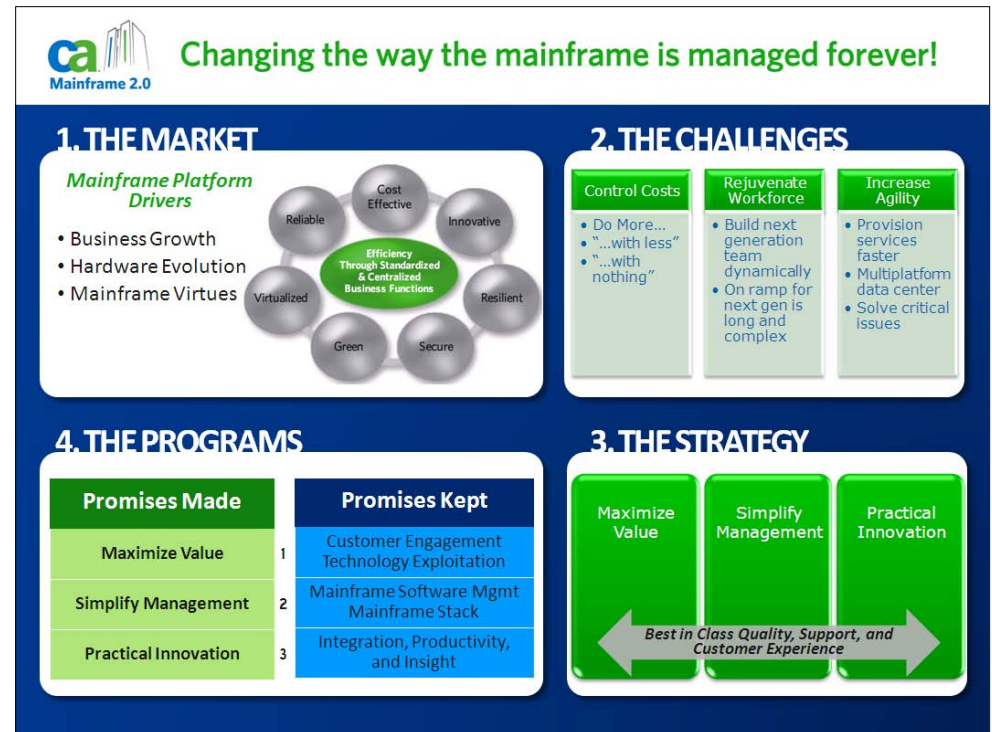
Chorus...The Next Evolution in Mainframe 2.0

Mainframe 2.0 Strategy

Changing the way the mainframe is managed forever!

Solve the major obstacles to the mainframe continuing as the premier data processing platform for the next 30-40 years to:

- Reduce the complexity of managing mission critical workloads
- Reduce the risk of declining Quality of Service due to the retiring workforce
- Increase the leverage of existing IT staff to manage the mainframe



Mainframe Knowledge Transfer & Knowledge Management

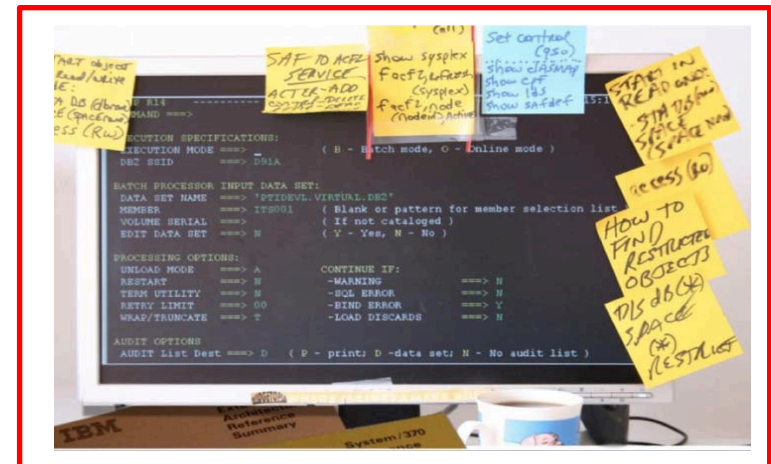
– What plans do you have in place for managing the scarcity of mainframe skills and the knowledge gap?

what's your plan?

- Sustain critical skills and enable next generation mainframer
- On-ramp to mainframe mastery is long & steep
- “Net Generation” thinks and works differently

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– Hopefully it doesn't look like this!



Evolution – Increases Productivity

```
IBM Personal Computer DOS-Version 3.00

A:>dir /w

Diskette/Platte, Laufwerk A:, hat keinen Namen
Verzeichnis von A:\

COMMAND  COM   CONFIG  SYS    AUTOEXEC  BAT    ANSI    SYS    SORT    EXE
SHARE    EXE    FIND    EXE    ATTRIB    EXE    MORE    COM    ASSIGN  COM
PRINT    COM    SYS     COM    CHKDSK    CON    FORMAT  COM    VDISK   SYS
BASIC    COM    BASICA  COM    FDISK     COM    COMP    COM    TREE    COM
BACKUP    COM    RESTORE COM    LAB
KEYBSP    COM    KEYBIT  COM    KEY
MODE      COM    SELECT  COM    GRA
GRAFTABL COM

36 Datei(en) 100352 Byte

A:>chkdsk

362496 Byte Gesamtkapazität
37888 Byte in 2 geschützten Dat
224256 Byte in 36 Benutzerdatei
100352 Byte auf Diskette/Platte
verfügbar

524288 Byte Gesamtspeicher
435072 Byte frei

A:>_
```

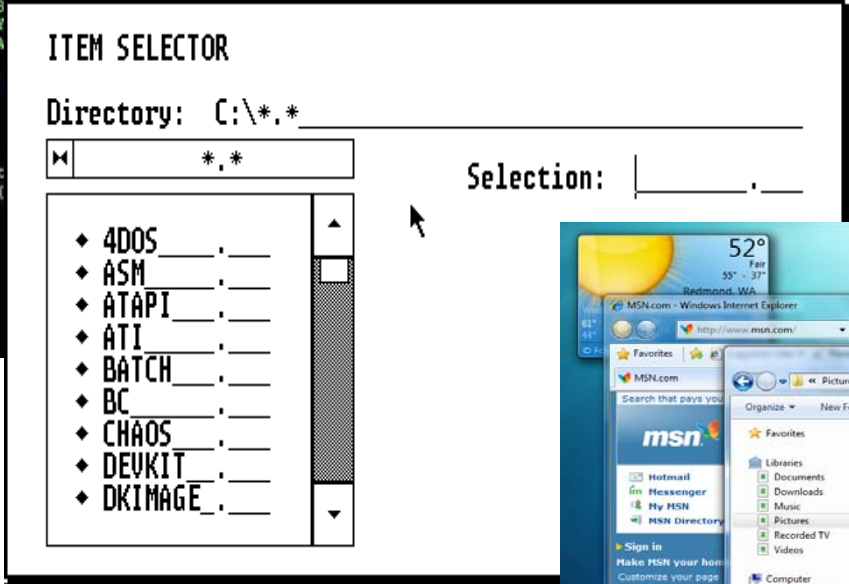
ITEM SELECTOR

Directory: C:*.*

Selection: _____

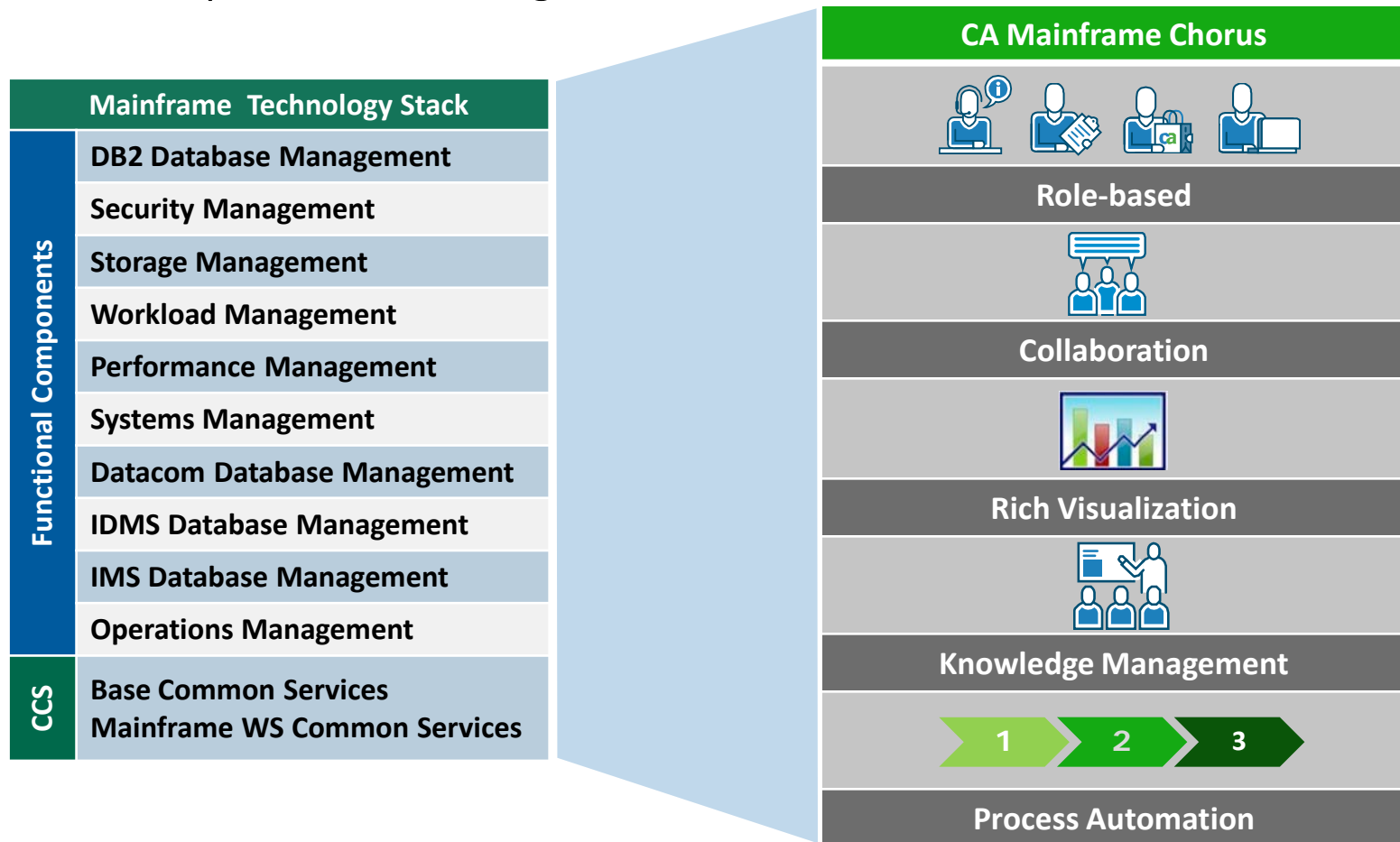
File list:

- ◆ 4DOS _____
- ◆ ASM _____
- ◆ ATAPI _____
- ◆ ATI _____
- ◆ BATCH _____
- ◆ BC _____
- ◆ CHAOS _____
- ◆ DEVKIT _____
- ◆ DKIMAGE _____



What is CA Mainframe Chorus?

Object-oriented workspace, with a new role-based interaction model that incorporates rich features and data visualization and leverages CA's portfolio of products as a single bank of features and functions



Why Roles?



What is CA Mainframe Chorus?

– A new and fundamentally different user interaction model

- Based on how people do their jobs, not how they use specific products
- Provides rich features and data visualization in a web-based workspace

The screenshot shows a mainframe terminal window with a menu titled "ISPF/PDF PRIMARY OPTION MENU". The menu options are:

- 0 ISPF PARMS - Specify terminal and user parameters
- 1 BRONSE - Display source data or output listings
- 2 EDIT - Create or change source data
- 3 UTILITIES - Perform utility functions

Below the menu, there is a section for "ACTIVITY, System Activity" showing system statistics:

(r)	IP%	TIP%	CP%	...	50..100	-Condition-	---	Ready---	---	Paging---	---	Storage---	
CPU	0%	0%	25%			NOENR	SMP	ASIDS	4	Stops	2	ESQA	50%
LCPU	2%	0%	25%			RES	NOHTO	Tasks	4	Rate	5	ESQA	70%

The terminal also shows a command prompt and a list of options for "CA Database Management Solutions for DB2 for z/OS".



The screenshot shows the CA Mainframe Chorus web-based workspace. The interface is modern and data-driven, featuring several key components:

- System Health Dashboard:** A top bar with various performance indicators (W3PRCS, PLANWORK, SCDAILY, W3PRCS2, LP20, LP30, LP31, LP32, Buffer, Library, Data, MEM, CPU) and their respective status (e.g., 69%, 26%, 80%, 95%, 99%, 97%, 99%, 94%, 60%).
- Performance Charts:** A "SLA PERFORMANCE-RCE" chart showing uptime (99.999%) and CPU usage (84.701%).
- Application Control:** An "APPLICATION DISPATCH" chart showing item 1 at 34.5% and item 2 at 13.8%.
- Alerts:** A table of alerts with columns for SEV, ERR, SYS, DESCRIPTION, and CREATED. Alerts include "DBPayroll: Performance Donec connection" and "DB9144: CPU Performance DoI".
- Path Management:** A table of paths with columns for Name, Shared, Created, and Author. Paths include "REORG HR tables" and "Add column on Employees Table".
- Notes:** A "MY NOTES" section with a table of notes, including "Tuning and Monitoring DB Payroll" and "Queries for Optimal system performa...".

Program, Design and Interaction Approach

Program Objectives:	<ul style="list-style-type: none">• Appeal to non-mainframe IT professionals• Boost productivity of current mainframe experts
Design Principles:	<ul style="list-style-type: none">• Engaged with external industrial design firm<ul style="list-style-type: none">• We engaged with experts on interaction modules and usability• Immersive process with our customers
Interaction Model:	<ul style="list-style-type: none">• Next generation management paradigm with:<ul style="list-style-type: none">• Customizable workspaces• De-siloed applications• Contextual actions• Drill through attributes• Utilities in context• Data visualisation• Collaboration

Workspace – Integration Your Way!

Display Options | Accessibility Help | Mobiles / PDAs

Take the tour



the BBC the Web

Search

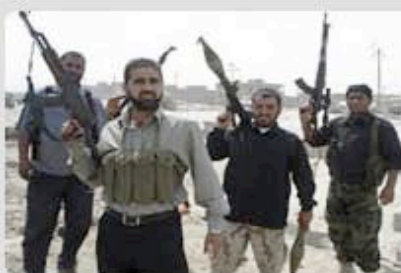
Friday 28 March 2008

Block

+ Customise your homepage ?

Set your location

Reset homepage



TOP NEWS STORY

Iraq extends militiamen deadline

Iraq extends by 10 days a deadline for militias fighting troops in the southern city of Basra to hand over weapons.

Watch / Listen to BBC News

Weather

Edit

London

Five day forecast

Friday

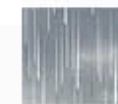
Saturday

Sunday



Light Rain

Max: 10°C
Min: 5°C



Heavy Rain

Max: 11°C
Min: 6°C

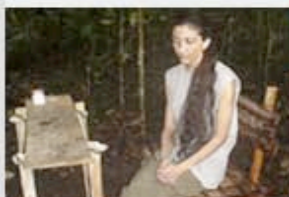


Sunny

Max: 12°C
Min: 5°C

News

Edit



Colombia offers Farc hostage deal

North Korea 'test-fires missiles'

Final push in Zimbabwe election

>> WORLD

+ -

- Iraq extends militiamen deadline
- Colombia offers Farc hostage deal
- North Korea 'test-fires missiles'

>> UK

+ -

- Second day of baggage chaos at TS
- Cameron urges economy rethink
- Treasury eyes whistleblower plan

World Service

Sport

Edit



England stars 'want India chance'

Warne rules out Hampshire return

Lewd O'Sullivan comments probed

>> FOOTBALL

+ -

- Jewell demands win as drop looms
- Sagna ruled out for three weeks
- Owen backs Beckham to play on

TV

BBC World

BBC America

BBC Prime

BBC Canada

BBC Entertainment

Animal Planet

People+Arts

UKTV Australia

Radio

World Service

ON WORLD SERVICE NOW

11:20 **World Business Report**

Analysis of the key business issues of the day, with up-to-date information on key currency rates, commodity prices and stock market indices.

Listen Live

ON NEXT

11:30 **World Briefing**

>> LISTEN AGAIN

More...

Radio 1
1Xtra
Radio 2
Radio 3
Radio 4
5 Live

The Database Management Role

CA Mainframe Chorus

Workspace and DB2 Database Management Role Features

CA Mainframe Chorus Workspace

- Rich visual presentation
- Third party integration
- Smart Objects intelligent interface
- Process capture “wizards”
- Collaboration tools

DB2 Database Management Role

- Time series data graphing
- Object-based navigation and management
- Alerts on DB2 threshold exceptions
- DB2 Knowledge Center
- Real time performance data

The Required Tools

- CA RC/Query r14
- CA RC/Migrate r14
- CA RC/Update r14
- CA Plan Analyzer for DB2 for z/OS r14
- CA Subsystem Analyzer for DB2 for z/OS r14
- CA Detector for DB2 for z/OS r14
- CA Insight Performance Monitor for DB2 for z/OS r14

CA Mainframe Chorus workspace

The screenshot displays the CA Mainframe Chorus workspace interface. The browser window title is "CA Mainframe Chorus - Mozilla Firefox" and the URL is "http://127.0.0.1:8080/Chorus/index.html?debug". The interface features a top navigation bar with various system metrics like EDM-POO, DATABAS, BACKGRO, LOG-WAR, SUBSYS-, SJ-POOL, RID-POO, LOCK-ES, FOREGRO, DEADLOC, BP-WARN, APPL-WA, THRDS-P, BP-PCT-, DBAT-TH, DATASET, and DATA. Below this is the "Mainframe Chorus" header with "DB2 Performance" and "DB2 Administration" tabs. A callout bubble labeled "Workspace Tabs" points to these tabs. The "Investigator" section shows a table of tasks and a list of alerts. A callout bubble labeled "Metric Panel" points to the top navigation bar. The "Command Manager" section includes fields for CONNECTION, SSID, and SQLID, with "Submit", "Explain", and "Clear" buttons. The "Module Library" section at the bottom left shows a line graph for "SUSSYS-WARN-EXCPT--3". A callout bubble labeled "Module Library" points to this graph. The bottom status bar shows the URL "http://127.0.0.1:8080/Chorus/index.html?debug#" and the CA Technologies logo.

Workspace Tabs

Metric Panel

Module Library

Modules

CA Mainframe Chorus - Microsoft Internet Explorer provided by CA

File Edit View Favorites Tools Help

Address http://ca31.ca.com:9188/Chorus/index.html

CA31::DA0G::System Statistics

LOG-WAR THRDS-P UNAVAIL SUBSYS- BACKGRO APPL-CR DEADLOC DBAT-TH SUBSYS- DATASET APPL-WA LOCK-ES TIMEOUTS DATABAS DB2-ADD DB2-ADDRSP-PCT-CPU:0.0

ca technologies Mainframe Chorus delau01 Logout Metrics Panel Off Subsystem List About Help

DB Admin +

Alerts

SSID: All

Search Clear Reset

Sev...	SSID	Message	Time
1	P912	Average number...	2010-06-04 14:59:32.032GMT+01:00
1	P912	Administration	06-04 14:59:32.032GMT+01:00
3	P912	Command Manager for DB2 for z/OS: Supports the execution of SQL, DDL, DB2 commands, and CA Batch Processor commands.	06-04 14:59:32.032GMT+01:00
3	D91A		06-04 10:02:20.020GMT+01:00
3	D91A	The SQL EXPLAIN function returns the DB2 access path with rules and recommendations to improve the SQL.	06-04 10:02:20.020GMT+01:00

Command Manager

Administration

Command Manager for DB2 for z/OS: Supports the execution of SQL, DDL, DB2 commands, and CA Batch Processor commands.

The SQL EXPLAIN function returns the DB2 access path with rules and recommendations to improve the SQL.

Investigator

Public Paths Private Paths

TITLE	MODIFIED	AUTHOR
list of DSN% databases	May 26, 2010 3:34:18 PM	coltr05
Howard's Path	Jun 3, 2010 6:24:35 PM	abrho01

Module Library

Suggested for You Search for module

Alerts Administration

Investigator Administration

Command Manager Administration

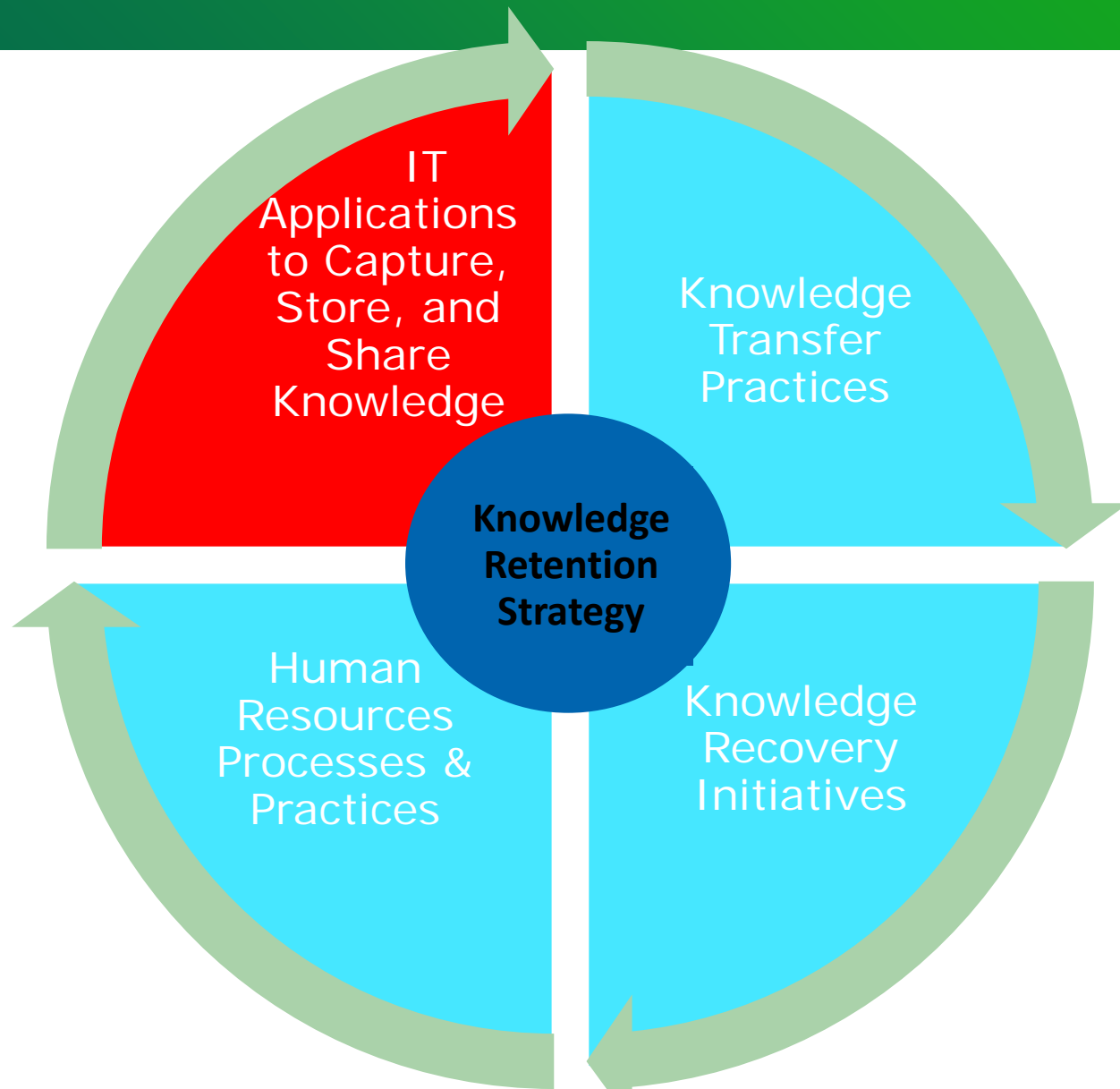
Notes Administration

Done

Local intranet

Start Windows Task M... D:\Techies\CA... 3 Microsoft Off... Gmail - Inbox (2... 2 Microsoft Off... 2 Microsoft Off... 2 Internet Ex... 100% 15:04

Enabling Knowledge Retention



The Concept of Paths

The screenshot displays the CA Mainframe Chorus web application in a Mozilla Firefox browser. The browser's address bar shows the URL `http://usilca31:6632/Chorus/index.html`. The application interface includes a navigation bar with various system statistics like DBD, RID-POO, and DBAT-IN. The main content area is titled "Mainframe Chorus" and features a "Default" tab. A modal dialog titled "Edit Path | Find SQL Statement Performance Problem" is open, allowing the user to edit the path details. The dialog contains the following information:

- Title:** Find SQL Statement Performance Problem
- Description:** These are steps to find poor running SQL Statements.
- Completion Status:** Complete (Other options: Incomplete)
- Visibility:** Public (Other option: Private)

Buttons for "Save" and "Cancel" are visible at the bottom of the dialog. The background interface shows a table with columns for Title, Modified, and Author, listing items like "Catalog Tables" and "Find SQL Statement Performance".

Breadcrumbs

Catalog Navigator - Mozilla Firefox

http://usilca11:9188/Chorus/Investigator.html?AppComponent=null&id=cce3e6b2-669f-4437-a776-4d8c00448c77

Save Path Clear Path

Investigator

CA31:DA0G:Application Performance:Plans

SQLID : coltr05

CPUPCT|

Favorite Systems

- D91A
- DA0G
 - Catalog
 - Subsystem Performance
 - Application Performance
 - Plans
 - Packages
 - SQL Activity
 - Dynamic SQL
 - SQL Errors
 - DA1G
 - DF3G

System	Percentage
RBPAI12	49.3%
RBPA1155	33.0%
DGL1I14	7.3%
DSNTIB91	5.3%
Others	3.0%
RBPAI14	2.1%

Time Series

Mainframe Chorus

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Read usilca11

Alerting and the Command Manager

The screenshot shows the Mainframe Chorus web interface in a Mozilla Firefox browser. The browser address bar shows `http://usilca31:6632/Chorus/index.html`. The interface includes a navigation bar with various system statistics like DBD, RID-POO, DBAT-IN, LOG-WAR, THRDS-P, SJ-POOL, APPL-CR, DEADLOC, PCT-DYN, SUBSYS-, DATASET, TIMEOUTS, PCT-CT-, BP-WARN, DB2-ADD, EDM-POO, and DATABAS. The user is logged in as `coltr05`.

The **Investigator** window displays an alert:

ALERTS : LP28 : DBP1 : AUTH : 104

SSID: All

SEV	SSID	DESCRIPTION	TIME
1	DBP1	Dummy Data from F	2010-04-22 08:38:3.003GMT-05:00
1	DBP2	Dummy Data from F	2010-04-22 08:38:3.003GMT-05:00
2	DB20	Dummy Data from F	2010-04-22 08:38:3.003GMT-05:00
3	DB10	Dummy Data from F	
4	DBP4	Dummy Data from F	2010-04-22 08:38:3.003GMT-05:00
5	DB71	Dummy Data from F	2010-04-22 08:38:3.003GMT-05:00

The **Command Manager** window shows the following command and results:

CONNECTION: LPAR: CA31 SSID: D91A SQLID: coltr05

-DIS DB(*) SPACE(*) RESTRICT

Submit Explain Clear

Messages Results

```
DSNT361I !D91A * DISPLAY DATABASE SUMMARY
          * RESTRICTED
DSNT360I !D91A *****
DSNT362I !D91A DATABASE = CPDBV902 STATUS = RW
          DBD LENGTH = 4028
DSNT397I !D91A
NAME TYPE PART STATUS PHYERRLO PHYERRHI CATALOG PIECE
-----
SEAF080 TS RW,COPY
***** DISPLAY OF DATABASE CPDBV902 ENDED *****
DSNT360I !D91A *****
DSNT362I !D91A DATABASE = FR#KEYW STATUS = RW
          DBD LENGTH = 92864
DSNT397I !D91A
NAME TYPE PART STATUS PHYERRLO PHYERRHI CATALOG PIECE
```


Alerting Cont'd

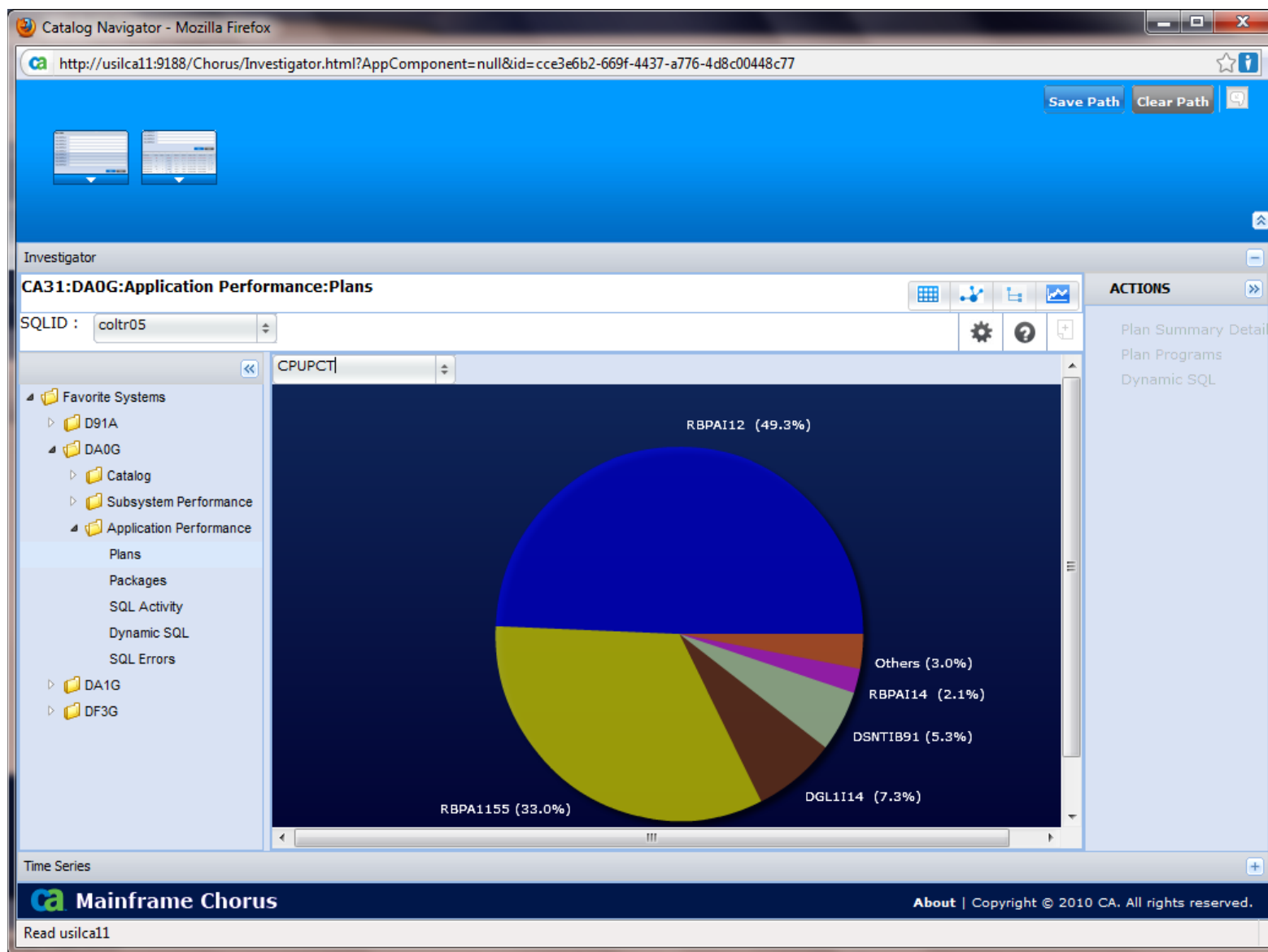
The screenshot displays the CA Mainframe Chorus web interface within a Windows Internet Explorer browser. The browser address bar shows the URL `http://ca31.ca.com:9188/Chorus/index.html`. The interface includes a navigation menu with various subsystems, a user profile for 'waran01', and a 'Metrics Panel Off' indicator.

Two main panels are visible:

- ALERTS : CA31 : D91A**: A table listing alerts for subsystem D91A. The table has columns for SEVERITY, SSID, MESSAGE, and TIME. Three alerts are shown, all with a severity of 1 and a message indicating a high percentage of DBD requests from the EDM pool.
- CA31::D91A::System Statistics**: A bar chart showing the current position of the PCT-DBD-LOAD. The y-axis represents a percentage from 0 to 100. The current position is 83.8, which is highlighted in red. A blue bar indicates the current load level.

The bottom of the interface shows a 'Module Library' section with '(1 item remaining)' and a status bar indicating 'Local intranet | Protected Mode: Off'.

Understanding Resource Usage



Viewing DB2 Metadata

The screenshot shows the IBM Data Explorer (Investigator) interface. The main window displays the 'Catalog:Table Space Tables' view for the 'WARAN01' SQLID. The left-hand navigation pane shows a tree structure with 'Data Sharing Groups' expanded to 'DAOG' and 'Catalog' selected. The main area shows a table of metadata for the 'DSNXSR' database. The table has columns for NOTES, NAME, CREATOR, DBNAME, DBID, OBID, PSID, BPOOL, PARTITIONS, and LOCKRULE. The data rows show details for SYSXSR and four SYSXSRRA tables. The right-hand side of the interface includes an 'ACTIONS' panel with options like 'Visualize', 'Table Space', 'Tables', and 'Migrate', and a 'STATUS' panel. The bottom status bar shows 'Page 1' and 'Displaying 1 to 5'.

Investigator - Windows Internet Explorer

Save Path Clear Path

Investigator

GROUP:DAOG:Catalog:Table Space Tables

SQLID: WARAN01

Filter:Databases

Databases:Details

DBNAME : DSNXSR NAME : DSNXSR

NOTES	NAME	CREATOR	DBNAME	DBID	OBID	PSID	BPOOL	PARTITIONS	LOCKRULE
	SYSXSR	TERJO03	DSNXSR	258	1	2	BP1	0	R
	SYSXSRRA1	TERJO03	DSNXSR	258	3	4	BP16K0	0	L
	SYSXSRRA2	TERJO03	DSNXSR	258	5	6	BP16K0	0	L
	SYSXSRRA3	TERJO03	DSNXSR	258	7	8	BP16K0	0	L
	SYSXSRRA4	TERJO03	DSNXSR	258	9	10	BP16K0	0	L

ACTIONS

- Visualize
- Table Space
- Tables
- Migrate

STATUS

Time Series

Visualizer

Done

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Local intranet | Protected Mode: Off

100%

Visualizer

Investigator - Windows Internet Explorer

History

Investigator

Time Series

Visualizer

Select Pan Zoom Marquee Hierarchical Symmetric Fit Overview Print

Index: XSRCOMP01

Table: XSROBJECTCOMPONENTS

Index: XSRCOMP02

View: XSROBJECTCOMPONENTS

Table Space: SYSXSXR

Table: XSROBJECTS

Index: XSROBJ01

Index: XSROBJ03

View: XSROBJE

Storage Group: SYSDEFLT

Database: DSNXSR

Table Space: SYSXSRA3

Auxiliary Table: XSRCOMPONENT

Table Space: SYSXSRA4

Actions

- Hide
- Hide children
- Hide unrelated
- Show immediate children
- Show all children

Search Objects

Search object...

Select	Visible	Name	Type
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SYSDEFLT	Storage Group
<input type="checkbox"/>	<input checked="" type="checkbox"/>	DSNXSR	Database
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SYSXSXR	Table Space
<input type="checkbox"/>	<input checked="" type="checkbox"/>	XSROBJECTS	Table
<input type="checkbox"/>	<input checked="" type="checkbox"/>	XSROBJ01	Index
<input type="checkbox"/>	<input checked="" type="checkbox"/>	XSROBJ02	Index
<input type="checkbox"/>	<input checked="" type="checkbox"/>	XSROBJ03	Index
<input type="checkbox"/>	<input checked="" type="checkbox"/>	XSROBJ04	Index
<input type="checkbox"/>	<input checked="" type="checkbox"/>	XSROBJECTS	View

Page 1 of 4

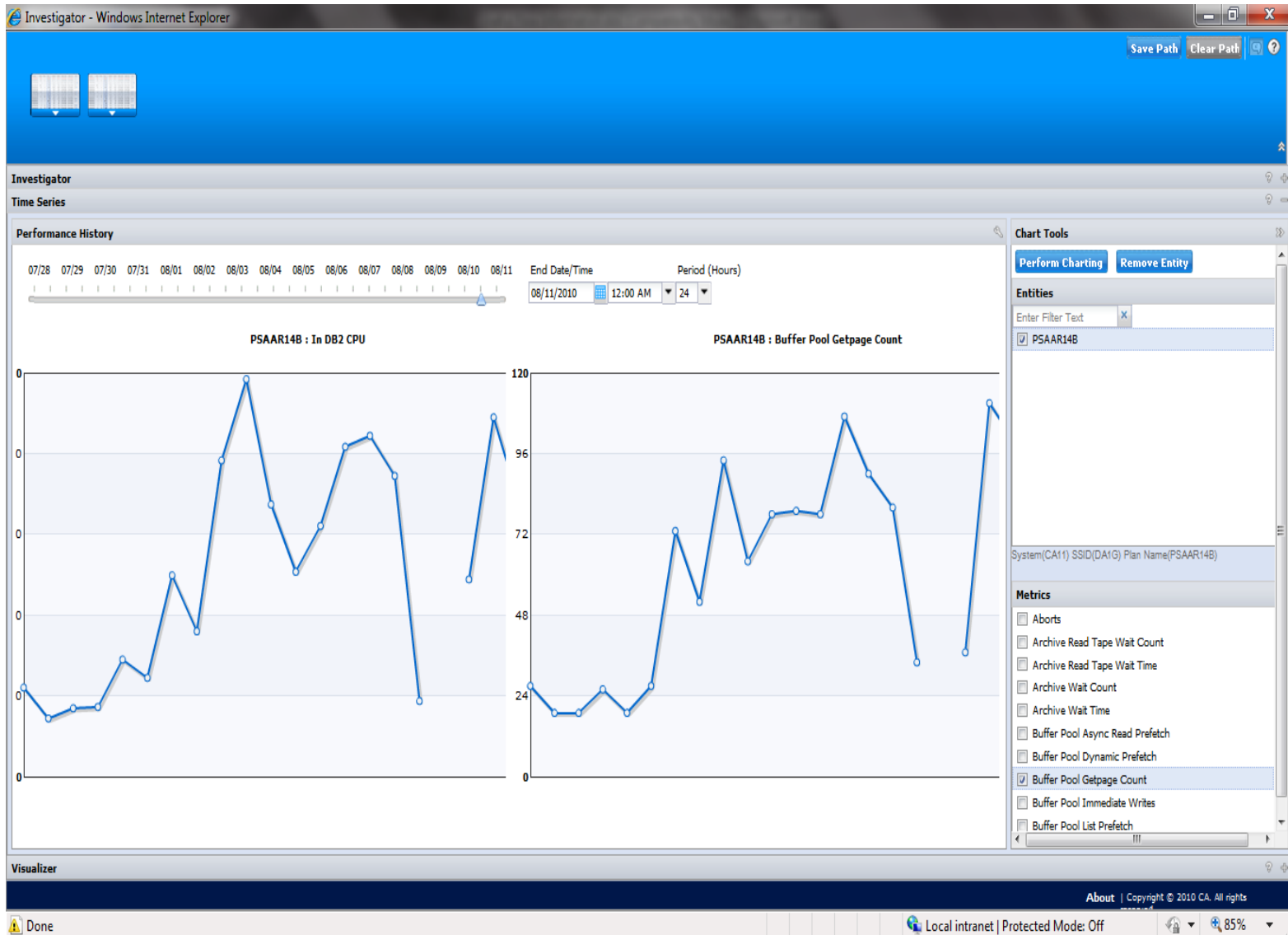
Displaying 1

About | Copyright © 2010 CA. All rights reserved.

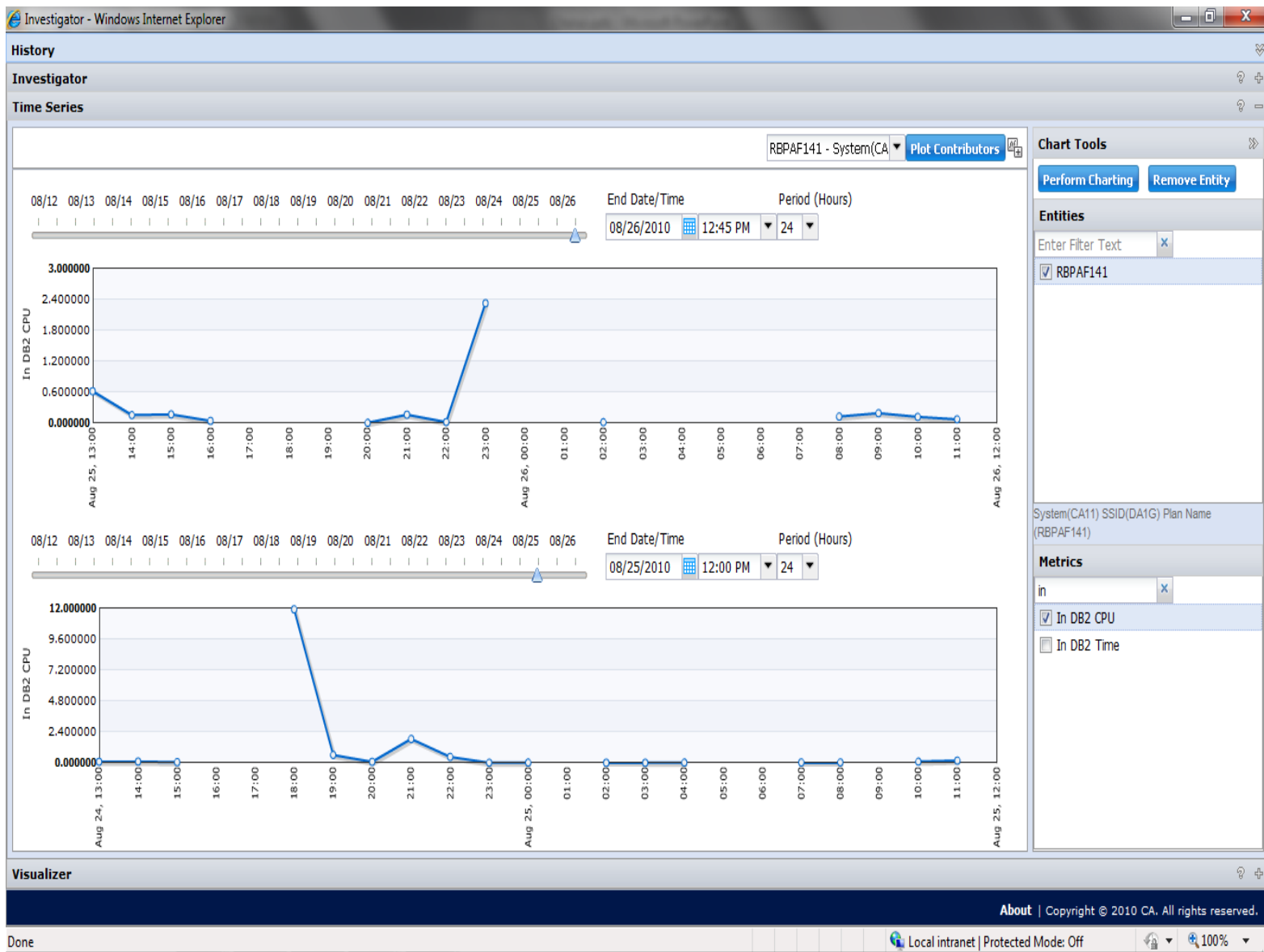
Local intranet | Protected Mode: Off

100%

Time Series...1



Time Series...2



Domain Documentation

in-context domain documentation

The screenshot displays the CA Mainframe Chorus web interface. On the left, the 'Command Manager' shows a search for '-904'. The 'Knowledge Center' search results list several entries for error code -904. A callout bubble labeled 'Book Shelves' points to the 'Investigator' section, which lists 'CA Mainframe Chorus', 'CA Database Management for DB2', 'IDUG', and 'CA Support'. A second callout bubble labeled 'Quick Ref Messages' points to a 'Quick Reference Detail' window. This window displays the following text:

```
***** Text Below Copyright (c) 2010, IBM *****  
-904 UNSUCCESSFUL EXECUTION CAUSED BY AN UNAVAILABLE RESOURCE. REASON  
reason-code, TYPE OF RESOURCE resource-type, AND RESOURCE NAME  
resource-name  
Explanation: The SQL statement could not be executed because resource  
'resource-name' of type 'resource-type' was not available at the time for  
the reason indicated by 'reason-code'. Refer to Table 3 in Appendix B,  
'Problem determination' in item PROBLEM_DETERMIN for an explanation of  
resource type codes. Refer to "DB2 Codes" for an explanation of the given  
reason code.  
System Action: The SQL statement cannot be executed. If the SQL statement  
being executed was a cursor FETCH, DB2 closes the cursor. Subsequent  
attempts to use that cursor without first doing an OPEN for it receive an  
SQLCODE -501.  
Programmer Response: Verify the identity of the resource that was not  
available. To determine why the resource was unavailable, refer to the  
specified 'reason-code'.  
SQLSTATE: 57011  
***** Additional information for this item appears below: *****  
----- V=IBM P=SQL CODES R=V7 I=PROBLEM_DETERMIN -----  
***** Text Below Copyright (c) 2010, IBM *****  
Problem determination  
Subtopics  
Diagnostic items  
Done
```


IDUG knowledge

The image shows a screenshot of a web browser with two windows. The left window is titled 'CA Knowledge Center - Mozilla Firefox' and shows search results for 'DB2 Resources'. A callout bubble points to the 'DB2 RESOURCES' link in the search results, containing the text 'Open IDUG Knowledge Articles'. The right window is titled 'DB2 Resources - Mozilla Firefox' and shows the IDUG website. The website header includes the IDUG logo and the tagline 'The Worldwide DB2 User Community'. A navigation menu contains links for HOME, DB2 RESOURCES, CONFERENCES, CONTENT, VOLUNTEER, BLOGS, SOLUTIONS JOURNAL, LISTSERV, EVENTS, and DB2 VIDEOS. The main content area features a large banner for the 'IDUG North America Conference May 10-14, 2010 - Tampa, Florida' with the tagline 'Your only source for independent, unbiased, and trusted DB2 information'. Below the banner is the 'DB2 Resources' section, which lists various resources and blogs. The 'DB2 Resources' list includes: IDUG List Servers, IBM DB2 Support, IBM DeveloperWorks DB2, IBM DB2 XML Wiki, IBM Database Magazine, IBM Software Support Toolbar, IBM DB2 for z/OS Information Roadmap, Best practices for DB2 for LUW, and Technical books from IBM Press. The 'Blogs' list includes: freedb2.com - about DB2 Express-C, MySQL, Oracle XE, SQL Server Express, etc; An Expert's Guide to DB2 Tech Blog; The Fillmore Group; DB2 for z/OS and System z Blog; DB2usa: Blog about DB2 for z/OS; Planet DB2.com; DB2 Magazine Blogs; and DB2 Portal. The browser's taskbar at the bottom shows various application icons and system tray icons.

CA Knowledge Center - Mozilla Firefox
http://usilca31:6632/Chorus/Help
Knowledge Center
Performance and Tuning < Adv
Total 40 matches found
... uest a speaker db2 videos dubunt
... db2 v9 for z/os - part 17 new apa
DB2 CONTENT
... tor application idug india forum 20
... s. db2 extract database size inform
GENERAL SESSION KEYNOTE PRES
... tor application idug india forum 20
... florida to hear directly from fellow
DB2 RESOURCES
... application idug india forum 20
... p... as links to other db2 resourc
IDUG
... n...
SQL: WHAT TO USE WHEN YOU CAN
... tor application idug india forum 20
Additional Information
CA Mainframe Chorus
CA Database Management fo
IDUG
CA Support
Mainframe Chorus
Done

DB2 Resources - Mozilla Firefox
http://www.idug.org/db2-resources.html
IDUG
The Worldwide DB2 User Community
HOME DB2 RESOURCES CONFERENCES CONTENT VOLUNTEER BLOGS SOLUTIONS JOURNAL LISTSERV EVENTS DB2 VIDEOS
IDUG North America Conference
May 10-14, 2010 - Tampa, Florida
Your only source for independent, unbiased, and trusted DB2 information
DB2 Resources
There are many DB2 resources available on the Internet. This page provides links to other DB2 resources provided by IDUG, IBM and
If you have a DB2 resource that you would like to recommend to be added to this page please send an email to
@idug.org .
DB2 Resources Blogs
IDUG List Servers
IBM DB2 Support
IBM DeveloperWorks DB2
IBM DB2 XML Wiki
IBM Database Magazine
IBM Software Support Toolbar
IBM DB2 for z/OS Information Roadmap
Best practices for DB2 for LUW
Technical books from IBM Press
freedb2.com - about DB2 Express-C, MySQL, Oracle
XE, SQL Server Express, etc
An Expert's Guide to DB2 Tech Blog
The Fillmore Group
DB2 for z/OS and System z Blog
DB2usa: Blog about DB2 for z/OS
Planet DB2.com
DB2 Magazine Blogs
DB2 Portal
Done

Open IDUG Knowledge Articles

summary

a few words to review

- CA Mainframe Chorus will provide a new, revolutionary user interface based on how people do their jobs, not on specific products
- *CA Mainframe Chorus for DB2 Database Management* is in beta now
- *CA Mainframe Chorus for Security Management* is currently in development
- In the near future, additional roles will be developed that will transform traditional product user interfaces in similar ways

thank you

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