

# ***XA Operator***

## ***Automated XA Operations!***

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704-814-0004

# Agenda

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- XAO Overview
- Automated Backups and Operations
- Verification
- Recovery Process
- IM/COM Period Close
- Coming Soon!

# XAO Overview

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- Helps MAPICS customers protect their iSeries systems and application data
- Supports a comprehensive Disaster Recovery Strategy encompassing iSeries operating environment, custom systems and MAPICS environment
- Automates common End-of-Day operations tasks
- Automates MAPICS jobs that cannot be run during the day due to conflicts
- Perform regular cleanup of output queues and data
- Automate IM and/or COM Period and Year-End Close

# XAO Backups and Operations

- Removes limitations that cause XA backup to fail
  - Save with active batches
  - Get users out of the environment and keep them out
  - Prevent outside access that lock objects (invisible to XA)
- Respects MAPICS save requirements
  - End and restart U-jobs
  - Manage XA journaling
  - Clean up abended jobs in JOBACT file
  - Clean up used batches
  - Run cleanup of application transaction and log files
  - Purge TRDATA records

# XAO Backups and Operations

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- Automate MAPICS tasks typically done manually
  - Finish IM, AR, REP and PCC suspended and closed batches
  - Run MAPICS file reorganization
  - Run selective MAPICS reports
  - Set Horizon Dates and Run MRP
  - End and Start Java Servers
  - Print COM Invoices
- Manage your environment availability (even after IPL)
  - Configure specific U-jobs to end and start
  - Configure environments to start Power Link

# XAO Backups and Operations

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- Configure daily and weekly jobs
  - Daily jobs save your XA files and related data
  - Weekly jobs save the system or components you choose
- Customize to meet your Backup and Recovery Strategy
  - Environments
  - Libraries and folders
  - Before/After commands
- Simplify verification of backup
- View History for libraries saved and commands run
- Email notification for failure and volume information

# XAO Backups and Operations

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- **Configure Daily Backup Job**
  - One for each production environment
  - Save to disk or tape
  - When to run
  - What to save
    - Libraries and Folders
    - IFS directories
  - Message to send to green-screen users

# XAO Backups and Operations

- Daily Backup

```
AB0001D1          Configure Backup Options          6/28/12
                  Daily Backup Job                  10:30:54

Tape Device . . . ? DISK          Backup . . S Y M Y T Y W Y T Y F Y S Y
Density . . . . . *CTGTYPE      Time to Start Save . . 035000
Volume . . . . . *SAME

Backup:
Security Information . . . . N   Y-Yes      MAPICS
Configuration Data . . . . N   N-No       Environment . . . . . AA
IBM libraries . . . . . N
IBM and User directories . . N   Backup w/Active Batches . Y

Backup All User Libraries . . S   Y-All O-Omit Initialize before backup Y
Backup All Document Folders . N   S-Selected Eject/Unload option . . . *REWIND
                               N-None

IPL When Complete . . . . . N   Y-Yes      Finish Closed Batches . . Y
Print Save Listings . . . . . Y   N-No       Backup Program Libraries . N
                               Lock library active . . . . Y

                               Message delay . . . . 10 (Minutes)
Message to all workstations: PLEASE EXIT FROM THE CLARKSVILLE ENVIRONMENT FOR B
ACKUPS IN 10 MINUTES.
F3=Exit  F4=Prompt          F10=Lib  F11=Folder  F12=Cancel  F23=Delete
```



# XAO Backups and Operations

- Before/After commands to run MAPICS jobs
  - IM Quantity Audits
  - MRP and MPSP Planning run (including setting horizon values)
  - Print IM Transaction Register
  - PMC Transaction Register (clean up TRDATA)
  - Start/End Power Link servers and Global Environment
  - Print all unprinted COM invoices
- Other Before/After commands
  - Restrict access during backups
  - Purge Output Queues
  - Submit other jobs
  - Save disk image to tape



# XAO Backups and Operations

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- High Availability Systems
  - No libraries are saved
  - Only environment cleanup tasks are performed
  - Before/After commands are processed as usual

# XAO Backups and Operations

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- Weekly Backup – System Save
  - When to run
  - What to save
    - Selected system components
    - Full-System Save
  - IPL
  - Message to green screen users

# XAO Backups and Operations

- Weekly Backup
  - Not environment specific
  - Intended for system saves and weekly processing

```
CISTECH2A1          Configure Backup Options          6/28/12
AB0001D1            Weekly Backup Job                  10:48:59

Tape Device. . . . ? TAP01                        Day of Week. . . . . 1 (Sun=1)
Density. . . . . *CTGTYPE                          Time to Start Save . . 040000
Volume . . . . . *SAME

Backup:
Security Information. . . . Y  Y-Yes
Configuration Data. . . . . Y  N-No
IBM libraries . . . . . Y
IBM and User directories. . Y

Backup All User Libraries. . Y  Y-All O-Omit  Initialize before backup Y
Backup All Document Folders. Y  S-Selected  Eject/Unload option . . . *UNLOAD
                               N-None

IPL When Complete . . . . . Y  Y-Yes
Print Save Listings . . . . . N  N-No          Lock library active..... Y

Message to all workstations: _____
                               Message delay . . . . . ____ (Minutes)

F3=Exit  F4=Prompt          F10=Lib  F11=Folder  F12=Cancel  F23=Delete
```

# XAO Backups and Operations

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- Weekly Backup Before/After commands
  - Get users out and keep them out
  - End jobs
  - Run MAPICS reorganization
  - Purge Output Queues

# XAO Backups and Operations

- iSeries Job Scheduler
  - View and check backups
  - Omit dates when tapes will not be loaded (holidays)

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Job Schedule Entries                                B1007F7C
                                                            10/31/04 13:14:33

Type options, press Enter.
 2=Change  3=Hold  4=Remove  5=Display details  6=Release
 8=Work with last submission 10=Submit immediately

-----Schedule-----
Opt  Job      Status  Date      Time      Frequency  Recovery  Next
-----
___  ABDAILYAA  SCD     USER DEF  00:00:02  *WEEKLY   *SBMRLS   11/02/04
___  ABWEEKLY   SCD     *SUN      23:00:00  *WEEKLY   *SBMRLS   10/31/04
___  AMPLUSAM   SCD     *ALL      02:00:00  *WEEKLY   *SBMRLS   11/01/04
___  EIS_DAILY  HLD     *ALL      02:00:00  *WEEKLY   *SBMRLS   11/01/04
___  EIS_MONTH  HLD     *MON      02:00:00  *MONTHLY  *SBMRLS   11/01/04
___  EIS_WEEK   HLD     *MON      02:00:00  *WEEKLY   *SBMRLS   11/01/04
___  REFRSHPL   SCD     USER DEF  03:00:00  *WEEKLY   *SBMRLS   11/01/04
More . . .

Parameters or command
===>
F3=Exit   F4=Prompt   F5=Refresh  F6=Add   F9=Retrieve
F11=Display job queue data  F12=Cancel  F17=Top    F18=Bottom

MA  a                               MW                               12/002
HP LaserJet 4L on LPT1:
1902 - Session successfully started
```

# XAO Backup Verification

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- Checking your backup
  1. Review backup messages
  2. Review Reports
    - Jobs that were ended
    - Display of tape contents
  3. Scan Joblog
    - Only if messages indicate problems
  4. Review Save History



# XAO Backup Verification

- Backup Messages
  - Major steps
  - Libraries that did not save completely
  - Tape label and save information for accurate catalogs

```
Display Messages
Queue . . . . . : ABMSGQ          Program . . . . . : System: S06EAB44
Library . . . . . : ABLIB          Library . . . . . : *DSPMSG
Severity . . . . . : 00           Delivery . . . . . : *HOLD

Type reply (if required), press Enter.
ABDAILYAA : Post Backup Processing for Environment AA completed.
From . . . . . : AKESUPPORT      06/28/12  04:21:34
ABDAILYAA -- Library PBRFILA      was Successfully Saved.
From . . . . . : AKESUPPORT      06/28/12  04:21:52
ABDAILYAA -- Library SYNUSGENMA  was Successfully Saved.
From . . . . . : AKESUPPORT      06/28/12  04:21:52
00002 Libraries were Saved
From . . . . . : AKESUPPORT      06/28/12  04:21:52
00000 Folders were Saved
From . . . . . : AKESUPPORT      06/28/12  04:24:43
ABDAILYAA : Mapics Jobqs for Environment AA have been released.
From . . . . . : AKESUPPORT      06/28/12  04:24:48
ABDAILYAA : Journaling for Environment AA has been started.

More...
```

# XAO Backup Verification

- Save History
  - Last time a library was saved and if there were errors
  - Job and Volume ID
  - Commands and if they succeeded

```
QPADEV009P          Save History Log          09:27:55
SFCTL01             ALL                       1/15/13
```

Object/Command	Job	Type	Save Date	Start Time	End Time	Status	
AMFLIB6	Volume	DAILY	Lib	1/15/13	1:40:53	2:09:31	SAVED
AMTLIB6	Volume	DAILY	Lib	1/15/13	2:09:32	2:10:19	SAVED
IWPDTA	Volume	DAILY	Lib	1/15/13	2:13:58	2:14:16	SAVED
JLHLIB	Volume	DAILY	Lib	1/15/13	2:14:16	2:14:25	SAVED
MTEKSAV	Volume	DAILY	Lib	1/15/13	2:14:25	2:14:37	SAVED
MXAMOD6	Volume	DAILY	Lib	1/15/13	2:14:37	2:15:05	SAVED
QGPL	Volume	DAILY	Lib	1/15/13	2:15:05	2:16:33	SAVED
ROD	Volume	DAILY	Lib	1/15/13	2:16:33	2:16:45	SAVED
RODQUERY	Volume	DAILY	Lib	1/15/13	2:16:45	2:16:55	SAVED
TLXJ	Volume	DAILY	Lib	1/15/13	2:16:55	2:17:09	SAVED
TLX400J	Volume	DAILY	Lib	1/15/13	2:17:09	2:17:31	SAVED
TOMO	Volume	DAILY	Lib	1/15/13	2:17:31	2:17:37	SAVED
END SOS MONITOR			Cmd	1/13/13	1:01:18	1:01:18	EXECUTED
END ALL STARTED UJOBS FOR ALL			Cmd	1/13/13	1:08:30	1:08:30	EXECUTED
***START SOS MONITOR			Cmd	1/13/13	1:09:16	1:09:16	NOT EXECUTED
CLEAN UP BACKUP OUTQ			Cmd	1/13/13	1:10:21	1:10:21	EXECUTED +

F3=Exit      F6=Toggle All/Exceptions

# XAO Recovery

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- Restoring your system using IBM guides
  1. Restore from the last weekly full save
    - Refer to the *iSeries Backup and Recovery Guide Checklist 20 – Recovering your entire system after a complete system loss*
  2. Restore your libraries and folders from the last daily save
  3. Verify your environment

*The system will be the same as when the last daily save was performed*

# XAO Recovery

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## *We use these tools for our DR Customers*

- Warm-site DR for Business Continuity (24 hrs or less)
- Annual DR testing with evaluation and score card
- Routine DR Audits (check your plan)

# XAO IM/COM Period Close

- Period Close Configuration
  - Select IM and/or COM
  - Schedule time for ABMTHENDxy job
  - Email address to send list of users still in the environment (used with delay so that person can get everyone out)

```
AB0013D1                                Configure Monthend Close                               1/29/12
                                           For Environment                                       15:02:10

Run IM Close?      Y   Y=Yes
Run COM Close?    Y   N=No

Scheduled Job Setup - ABMTNEND:
(leave blank if the job will run with the backup job)

Time to Start Close   110000

Email to send list of users currently on the system:
BELINDA.DAUB@CISTECH.NET

Minutes to wait before ending user jobs 010

F3=Exit                                F11=Calendar  F12=Cancel  F23=Delete
```

# XAO IM/COM Period Close

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- Get users out of the environment for the close process

From: qpgmr@cistech.net  
Sent: Friday, March 01, 2013 12:47 AM  
To: [drsupportteam@cistech.com](mailto:drsupportteam@cistech.com)  
Subject: Month End User List

The following users are in the environment and need to exit immediatly.

ADLERGXM  
AUGUSTIN  
BLACKRM  
BOURNK  
HALLBCT

# XAO IM/COM Period Close

- Period Close Calendar
  - Same for IM and COM
  - Date the close will actually run (consider the time the job will run if after midnight)

```
QPADEV000M  Env: EV          COM/IM Period/Year Close          1/29/12
PYC01D2      Run Dates and IM Control Settings              15:06:47

Run Date:   13112   Omit this Close?  -   Media Label:  _____
            22813   -
            33113   -
            43013   -
            53113   -
            63013   -
            73113   -
            83113   -
            93013   -
            103113  -
            113013  -
            123113  -
            _____

IM Control Settings:
      Report Sequence:  1  (1=Item, 2=Class)
      Calc Onhand Cost Using:  1  (1=Std, 2=Avg, 3=Last)
      Replace Undef with PDM Std Cost:  3  (1=Yes/Exclude Items w/Features,
                                           2=Yes/All Items, 3=No)
F3=Exit   F12=Previous
```

# XAO IM/COM Period Close

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- Period/Year-end Close
  - Before/After commands
    - Programs you want to run only on month-end
  - Dedicated system recommended to avoid conflicts



# XAO – Coming Soon!

## Web interface

- Configuration
- Verification

The screenshot displays the 'XA Operator' configuration page within a VMware Remote Console window. The page header includes the CISTECH logo and 'The MAPICS Experts' tagline, along with the text 'CISTECH, Inc Operations Dashboard'. The environment is identified as 'CLARKSVILLE R7.8 PRODUCTION ENVIRONMENT'. The interface is divided into several sections:

- Backup Device:** Includes radio buttons for 'Tape' (selected) and 'Disk'. Fields for 'Device Name' (TAP01), 'Volume ID' (\*SAME), 'Initialize?' (Yes selected), and 'End Option' (\*REWIND).
- System Options:** A list of options with radio buttons for Yes/No: Security (Yes), Configuration (Yes), IBM Libraries (No), Directories (No), IPL (No), and Print listing (Yes).
- XA Options:** A list of options with radio buttons for Yes/No: End All Jobs (No), w/ Active Batches (No), Finish Batches (No), Program Libs (No), and Lock Library (No).
- Other Objects:** Includes dropdown menus for 'User Libraries' (All) and 'Doc Folders' (All).
- Schedule:** A section with checkboxes for days of the week (S, M, T, W, T, F, S) and a 'Time' field set to 030000.
- Message:** Fields for 'Delay Minutes' and 'Message Text'.

Navigation buttons for 'Save' and 'Cancel' are present at the top right and bottom right of the configuration area. A footer note at the bottom of the console window reads: 'To direct input to this virtual machine, press Ctrl+G.'

# XAO – Coming Soon!

- Media Catalog
  - Volume id, save date, location, retention date
  - Prevent using media before it is expired
  - Reminders to load a tape before you leave

DATE: 3/04/2013  
TIME: 13:40:33

DISASTER RECOVERY MEDIA REPORT FOR: Bristol Compressors

DRTDRRPT  
Page: 1

Label	Description	Date Saved	Location	Date Returned	Type	Error	Retent. Date	Verified By
0085L4	Full System	3/03/2013	Bristol		FS	N	4/14/2013	BENTONA
0084L4	Daily Save	3/02/2013	Bristol		DA	N	3/16/2013	BENTONA
0213L4	Month End	3/01/2013	Bristol		ME	N	3/02/2013	
0083L4	Daily Save	2/28/2013	Bristol		DA	N	3/14/2013	BENTONA
0075L4	Daily Save	2/27/2013	Bristol		DA	N	3/13/2013	BENTONA
0062L4	Daily Save	2/26/2013	Bristol		DA	N	3/12/2013	BENTONA
0040L4	Full System	2/24/2013	Cistech DC		FS	N	4/07/2013	
0039L4	Daily Save	2/23/2013	Bristol		DA	N	3/09/2013	BENTONA
0038L4	Daily Save	2/22/2013	Bristol		DA	N	3/08/2013	BENTONA
0029L4	Daily Save	2/21/2013	Bristol		DA	N	3/07/2013	BENTONA
0089L4	Daily Save	2/20/2013	Bristol		DA	N	3/06/2013	BENTONA
0079L4	Daily Save	2/19/2013	Bristol		DA	N	3/05/2013	GRICOLT
0072L4	Full System	2/17/2013	Cistech DC		FS	N	3/31/2013	BENTONA
0066L4	Daily Save	2/16/2013	Bristol		DA	N	3/02/2013	BENTONA
0056L4	Daily Save	2/15/2013	Bristol		DA	N	3/01/2013	BENTONA
0051L4	Daily Save	2/14/2013	Bristol		DA	N	2/28/2013	BENTONA

# XAO – Coming Soon!

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- XA Monitor
  - U-Job Monitor
    - Configure U-jobs critical to your business
    - Alert when the U-jobs are not running or are waiting on a message
  - Java Monitor
    - Alert if java server jobs are not active on the system (Power Link is not available)

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***Thank you!***

**Questions?**