



# **Simplify Your SAP BusinessObjects Upgrade Post-Migration Validation & Optimization**



# Today's Session

## *Key Topics*

- **Introductions**
- **BI Upgrade Stages**
- **Upgrade Validation**
  - Validate System & Security
  - Validate Report Accuracy
  - Validate Performance
- **Q&A** – see webinar console



## *Today's Presenters*



**JAY MURDOCH**

*Business Development Manager*  
**APOS**



**FRED WALTHER**

*Senior Solution Consultant*  
**APOS**

## Who is APOS?

- Formed in 1992
- Enabling BI platform management, administration, migration, governance and compliance
- Simplifying, automating, extending SAP BusinessObjects and SAP Analytics Cloud
- Strategic SDK development and consulting
- Hundreds of customers globally



# APOS



**SAP  
BusinessObjects**



**Hybrid BI**



**SAP  
Analytics Cloud**



## HOUSEKEEPING



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we did in the  
**survey**

# APOS Solutions for SAP BusinessObjects



## APOS Insight

### BI System Auditing

- System Inventory
- Security Analysis
- System Usage Analysis
- Report Impact Analysis

### BI Report Testing

- Automated Report Testing
- Regression Testing
- Validation of Report Data
- Report Performance Testing

### BI System Monitoring

- Advanced System Monitoring
- Operating Environment Monitoring
- Database Monitoring
- Process Monitoring

### BI Query Surveillance

- Real-time BI Query Monitoring
- Query Performance Alerting & Auditing
- Query Intervention; Remote Cancelling
- Sensitive Data Audit



## APOS Administrator

### Object Management

- Bulk Security Management
- Bulk Settings Management
- System Objects Promotion
- Connections Maintenance

### Schedule Management

- High-volume schedule management
- Multiple schedule properties editing
- Grid scheduling interface
- Repeatable scheduling templates

### Instance Management

- Manage entire instance inventory
- Granular instance search
- Stop, pause, release, reschedule
- Rapid recovery to failed schedules

### Web Intelligence Migration

- Bulk conversion of Universes from UNV to UNX
- High-Volume Repoint Web Intelligence reports
- Success validation
- Controlled, project-based workflow

## APOS Storage Center



- System Backup
- Content Archiving
- Content Versioning
- Selective Restoration
- Automated System Clean Up

## APOS Publisher

- Systematic Content Delivery
- Advanced Document Bursting
- Enhanced Content Distribution
- Security and Encryption
- Statement Generation



# APOS Upgrade BI S<sup>3</sup>



## SAP BusinessObjects Upgrade - Three Stage Timeline

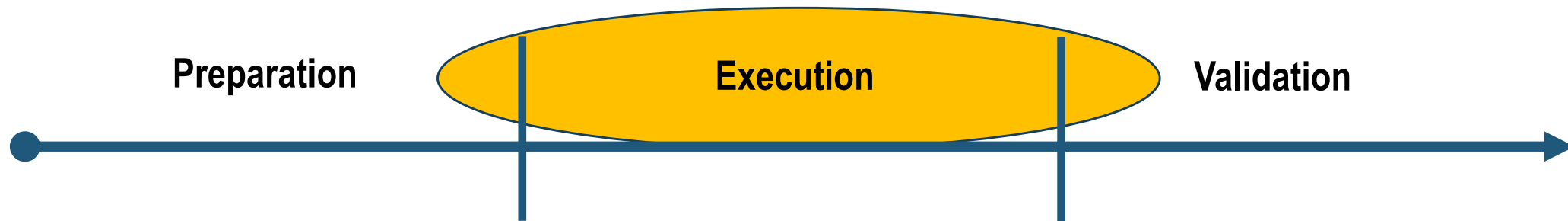


Webinar 1

# APOS Upgrade BI S<sup>3</sup>



## SAP BusinessObjects Upgrade - Three Stage Timeline



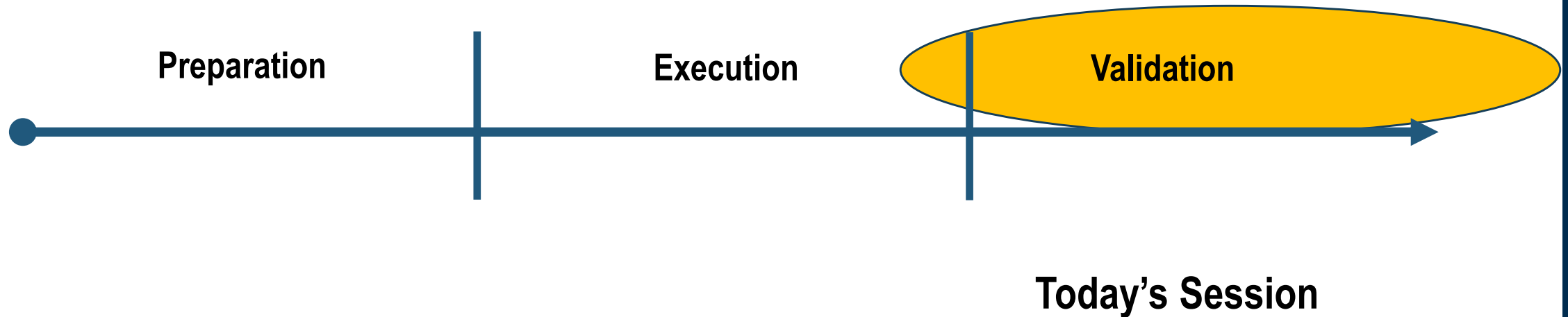
Webinar 2



# APOS Upgrade BI S<sup>3</sup>

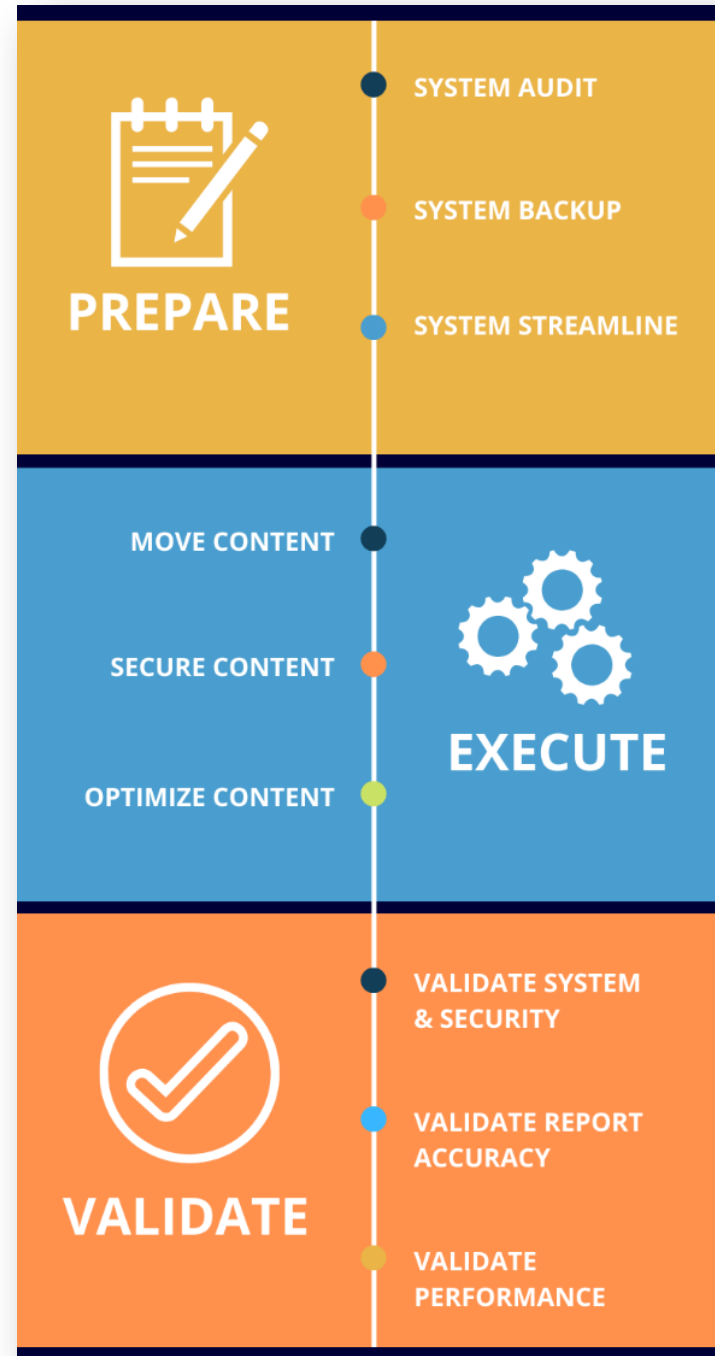


## SAP BusinessObjects Upgrade - Three Stage Timeline



# APOS Upgrade BI S<sup>3</sup>

## 3 STEPS TO AN EFFECTIVE SAP BUSINESSOBJECTS UPGRADE





**Fred Walther**  
*Senior Solution Consultant*  
**APOS**

# Recap

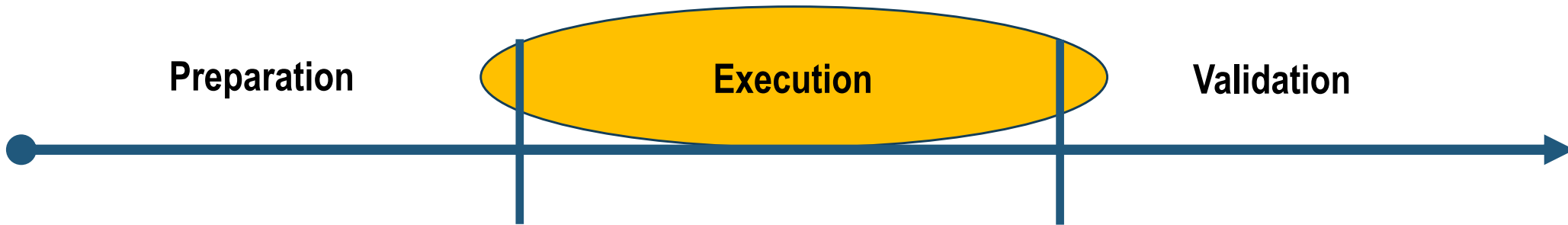


# Upgrade Smart, Strong & Safe - *Preparation*



- **System Audit** – Leave existing problems behind; don't propagate them in the new system
- **System Backup** – Protect your assets; governance, operations & legal obligations
- **System Optimization** – Take the opportunity to build a lean, effective & efficient system
- **Test Plan** - Review and compare benchmarked information with Migrated System

# Recap



# Upgrade Smart, Strong & Safe - Execution



- **Moving Content**– Options for moving
- **Simplify & Optimize** – consolidate/rationalize
- **Secure & Protect** – work in bulk to implement your security plan
- **Test Plan** – Create Validation Projects



# APOS Upgrade BI S<sup>3</sup>



## SAP BusinessObjects Upgrade - Three Stage Timeline





# Upgrade Smart, Strong & Safe -Validation



- **Security** – ensure the correct groups have access to needed content
- **System & Content Settings** – compare BI Server Settings against source
- **Data Connectivity**– ensure connections point to the correct data sources
- **Validating Content Accuracy** – Compare data output of reports
- **Optimizing Performance**- Analysis and Stress Testing
- **Ongoing Quality Assurance** – leverage value realized in migration phases



# Security



## Key areas regarding security

- Does the security model match Source system?
  - Folder Level Security settings
    - Rights
    - Roles
  - Custom Access Levels
    - Where assigned
    - Associated rights
  - Ensuring data safety
- Are there areas that need to be improved/updated
  - Modify Security settings
  - Change report attachments to hyperlinks



# Security Rights & Roles Report

## Security Settings

- Which settings have been made to the BI Objects?

Web Intelligence

Report Map

Security Settings Rights and Roles

Security Settings

Critical Care - VOD

Patient Intake - Admin

Sales

Surgical - View

Security Rights

Sales

Security Roles

Critical Care - VOD

/C1\_Test/JKL4

/Hospital X/Critical Care

Patient Intake - Admin

/Hospital X/Patient Intake

Surgical - View

/Hospital X/Surgical

Custom Access Levels

APOS Insight

Security Settings

Critical Care - VOD

Object Type: Folder

Folder: /C1\_Test/JKL4

Object ID	Object Name	Role	Inherit	Add	View	Edit	Modify Rights	Sch
145195	JKL4	Critical Care - Scheduler	0	D	G	D	D	G

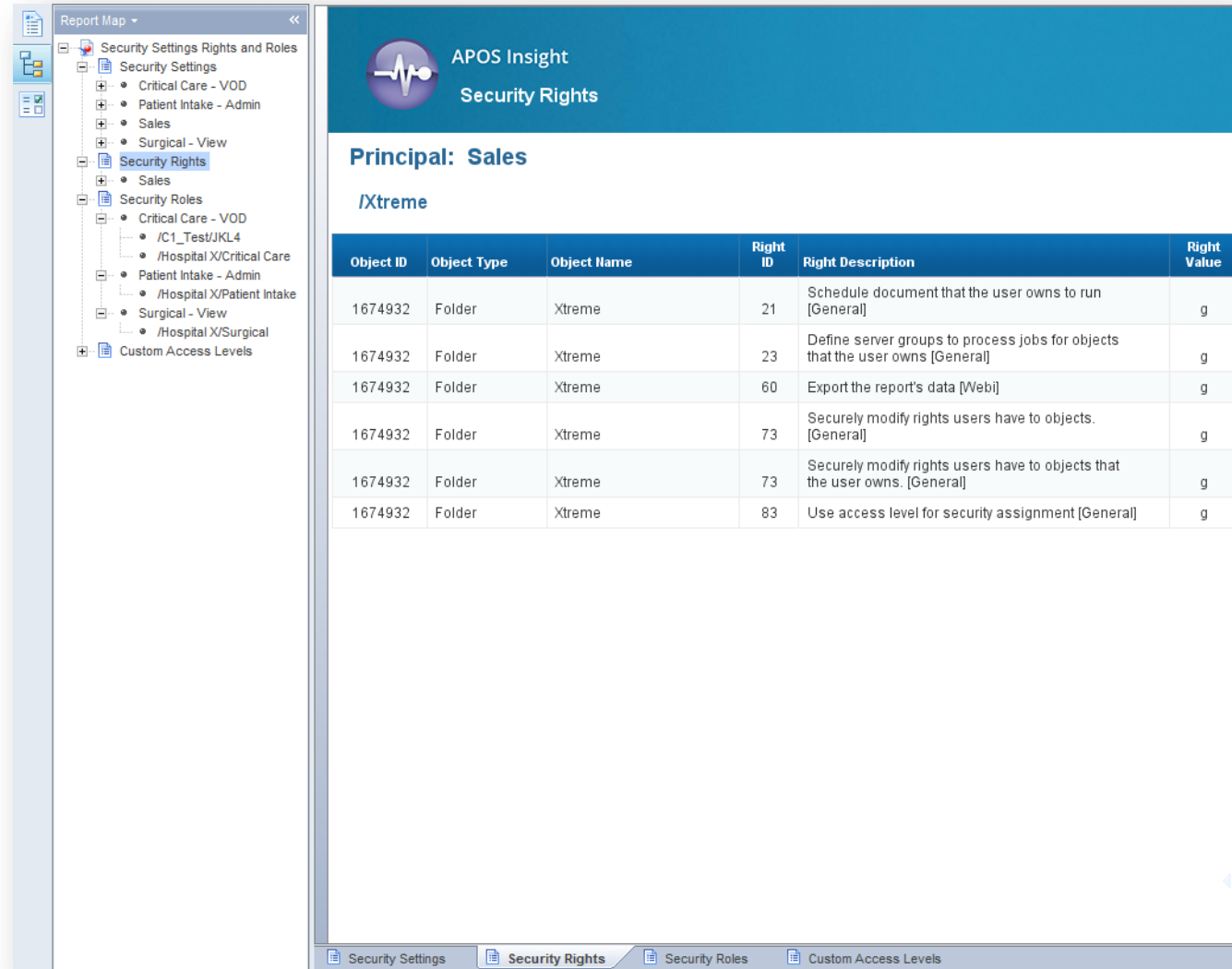
Folder: /Hospital X/Critical Care

Object ID	Object Name	Role	Inherit	Add	View	Edit	Modify Rights	Sch
644698	Critical Care	Critical Care - View on Demand, View	1	D	G	G	G	G

# Security Rights & Roles Report

## Rights Settings

- Which rights have been assigned to which principals



**APOS Insight**  
**Security Rights**

**Principal: Sales**  
**/Xtreme**

Object ID	Object Type	Object Name	Right ID	Right Description	Right Value
1674932	Folder	Xtreme	21	Schedule document that the user owns to run [General]	g
1674932	Folder	Xtreme	23	Define server groups to process jobs for objects that the user owns [General]	g
1674932	Folder	Xtreme	60	Export the report's data [Webi]	g
1674932	Folder	Xtreme	73	Securely modify rights users have to objects. [General]	g
1674932	Folder	Xtreme	73	Securely modify rights users have to objects that the user owns. [General]	g
1674932	Folder	Xtreme	83	Use access level for security assignment [General]	g

Security Settings | **Security Rights** | Security Roles | Custom Access Levels

# Security Rights & Roles Report

## Security Roles

- Which roles have been assigned to which objects

Report Map

Security Settings Rights and Roles

Security Settings

- Critical Care - VOD
- Patient Intake - Admin
- Sales
- Surgical - View

Security Rights

- Sales

Security Roles

- Critical Care - VOD
  - /C1\_Test/JKL4
  - /Hospital X/Critical Care
- Patient Intake - Admin
  - /Hospital X/Patient Intake
- Surgical - View
  - /Hospital X/Surgical

Custom Access Levels

APOS Insight

Security Roles

System: BI41SP6FW

Principal: Critical Care - VOD

Object: /C1\_Test/JKL4

Object ID	Object Type	Object Name	Role Name
145195	Folder	JKL4	Critical Care - Scheduler

Object: /Hospital X/Critical Care

Object ID	Object Type	Object Name	Role Name
644698	Folder	Critical Care	Critical Care - View on Demand
644698	Folder	Critical Care	View

Principal: Patient Intake - Admin

Object: /Hospital X/Patient Intake

Object ID	Object Type	Object Name	Role Name
644693	Folder	Patient Intake	Patient Intake - Admin
644693	Folder	Patient Intake	View

Principal: Surgical - View

Object: /Hospital X/Surgical

Object ID	Object Type	Object Name	Role Name
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Security Settings

Security Rights

Security Roles

Custom Access Levels

# Security Rights & Roles Report

## Custom Access Levels

- Which Custom Access Levels have been assigned to which objects

Report Map

Security Settings Rights and Roles

Security Settings

Critical Care - VOD

Patient Intake - Admin

Sales

Surgical - View

Security Rights

Sales

Security Roles

Critical Care - VOD

/C1\_Test/JKL4

/Hospital X/Critical Care

Patient Intake - Admin

/Hospital X/Patient Intake

Surgical - View

/Hospital X/Surgical

Custom Access Levels

Critical Care - Admin

Object Type	AP_Location
Folder	/Hospital X/Critical Care
Folder	/Report Samples/Financial
Folder	/Web Intelligence Samples/Convert
Folder	/Web Intelligence Samples/Convert/Oct28

Critical Care - Scheduler

Object Type	AP_Location
Folder	/C1_Test/ABC1
Folder	/C1_Test/JKL4
Folder	/Hospital X/Critical Care
Report	/APOS Insight Reports/SQL Server/Audit - Reports Refreshed by User
Report	/APOS Insight Reports/SQL Server/Audit - User Logon Activity
Report	/APOS Insight Reports/SQL Server/Crystal - DataSource Info
Report	/APOS Insight Reports/SQL Server/Crystal - Search for Fields Used In Reports
Report	/APOS Insight Reports/SQL Server/Other - Favorite Folder Report
Report	/APOS Insight Reports/SQL Server/Webi - Structure

Critical Care - View on Demand

Object Type	AP_Location
Folder	/APOS Insight Reports/Oracle
Folder	/APOS Insight Reports/SQL Server
Folder	/Hospital X/Critical Care

Critical Care - View Only

Object Type	AP_Location
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Security Settings

Security Rights

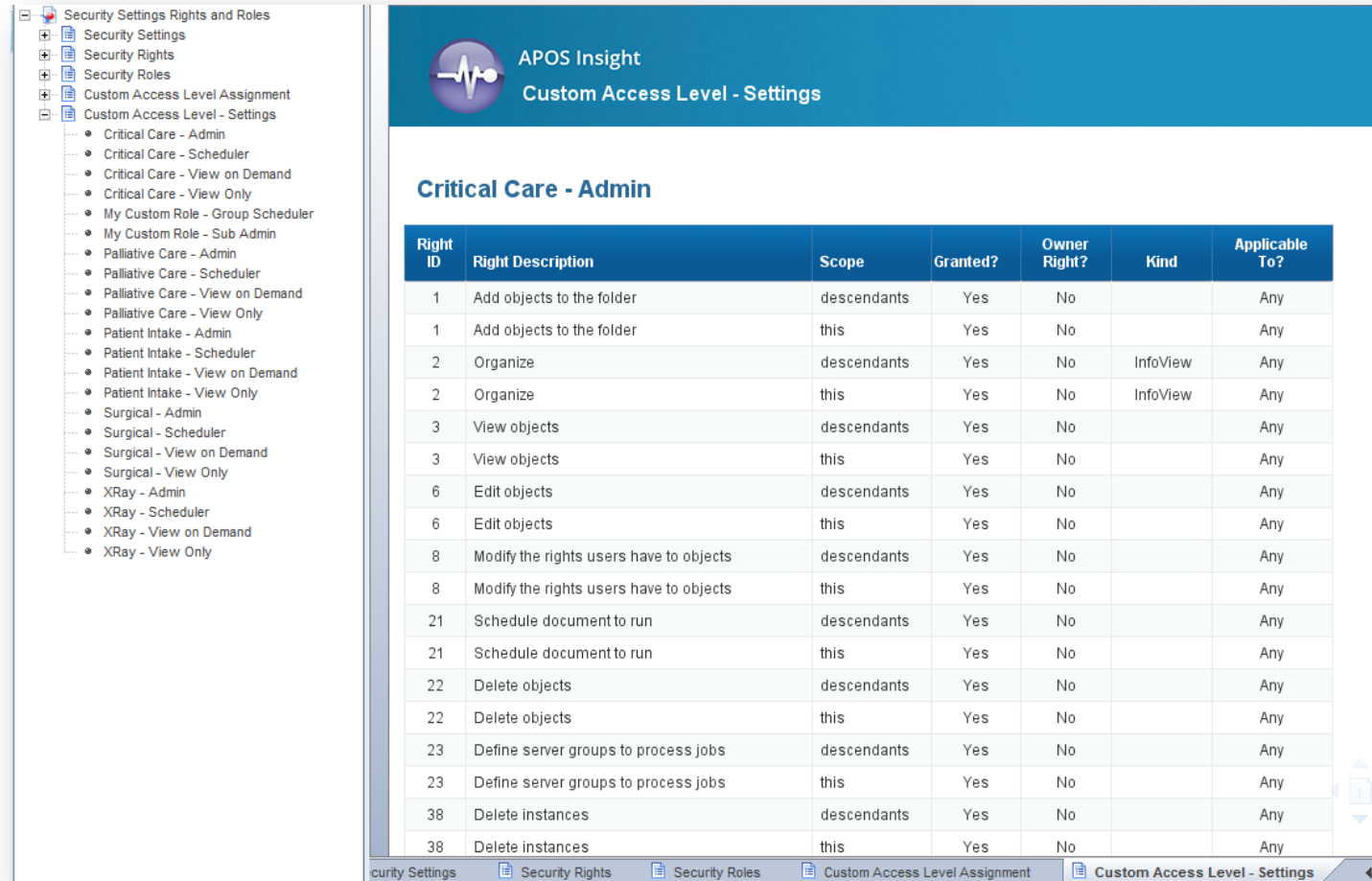
Security Roles

Custom Access Levels

# Security Rights & Roles Report

## Custom Access Level Settings

- Which rights have been assigned to each Custom Access Level



**APOS Insight**  
Custom Access Level - Settings

### Critical Care - Admin

Right ID	Right Description	Scope	Granted?	Owner Right?	Kind	Applicable To?
1	Add objects to the folder	descendants	Yes	No		Any
1	Add objects to the folder	this	Yes	No		Any
2	Organize	descendants	Yes	No	InfoView	Any
2	Organize	this	Yes	No	InfoView	Any
3	View objects	descendants	Yes	No		Any
3	View objects	this	Yes	No		Any
6	Edit objects	descendants	Yes	No		Any
6	Edit objects	this	Yes	No		Any
8	Modify the rights users have to objects	descendants	Yes	No		Any
8	Modify the rights users have to objects	this	Yes	No		Any
21	Schedule document to run	descendants	Yes	No		Any
21	Schedule document to run	this	Yes	No		Any
22	Delete objects	descendants	Yes	No		Any
22	Delete objects	this	Yes	No		Any
23	Define server groups to process jobs	descendants	Yes	No		Any
23	Define server groups to process jobs	this	Yes	No		Any
38	Delete instances	descendants	Yes	No		Any
38	Delete instances	this	Yes	No		Any

Security Settings | Security Rights | Security Roles | Custom Access Level Assignment | Custom Access Level - Settings

# Security Management

## Applying Security:

- Select folders in bulk
- Select groups
- Choose security assignment
- Save when complete

The screenshot displays a web-based security management interface. At the top, there is a search bar with the text "Insight Based Search". Below it, there are filters for "Object Types" (set to "Folder"), "Search By" (set to "Location"), "Date Criteria" (set to "Create Date"), and "Extensions" (set to "N/A"). A "Categories" dropdown is set to "<All>".

The main content area features a table titled "Security Maintenance" with a menu bar (File, Edit, Action). The table has columns for "Us", "G - Critical Care", "G - Imaging", "G - Palliative Care", "G - Patient Intake", and "G - Surgical". The rows list various folders and their security assignments:

	G - Critical Care	G - Imaging	G - Palliative Care	G - Patient Intake	G - Surgical
/Hospital X/Surgical - Folder	No Access	No Access	No Access	No Access	View
/Hospital X/Patient Intake - Folder	No Access	No Access	View	No Access	No Access
/Hospital X/Palliative Care - Folder	No Access	View	No Access	No Access	No Access
/Hospital X/Imaging - Folder	View	No Access	No Access	No Access	No Access
/Hospital X/Critical Care - Folder	View	No Access	No Access	No Access	No Access
/Hospital X - Folder	View	View	View	View	View

Below the "Security Maintenance" table, there is another table with columns for "Hospital X", "Critical Care", "Imaging", "Palliative Care", "Patient Intake", "Surgical", "IDAC Reports", "LCM", "Promotion Jobs", and "Lumira S". The rows show the security assignments for these folders, including the user (Fred, Administrator, System Account) and the date (2016/1, 2015/0).

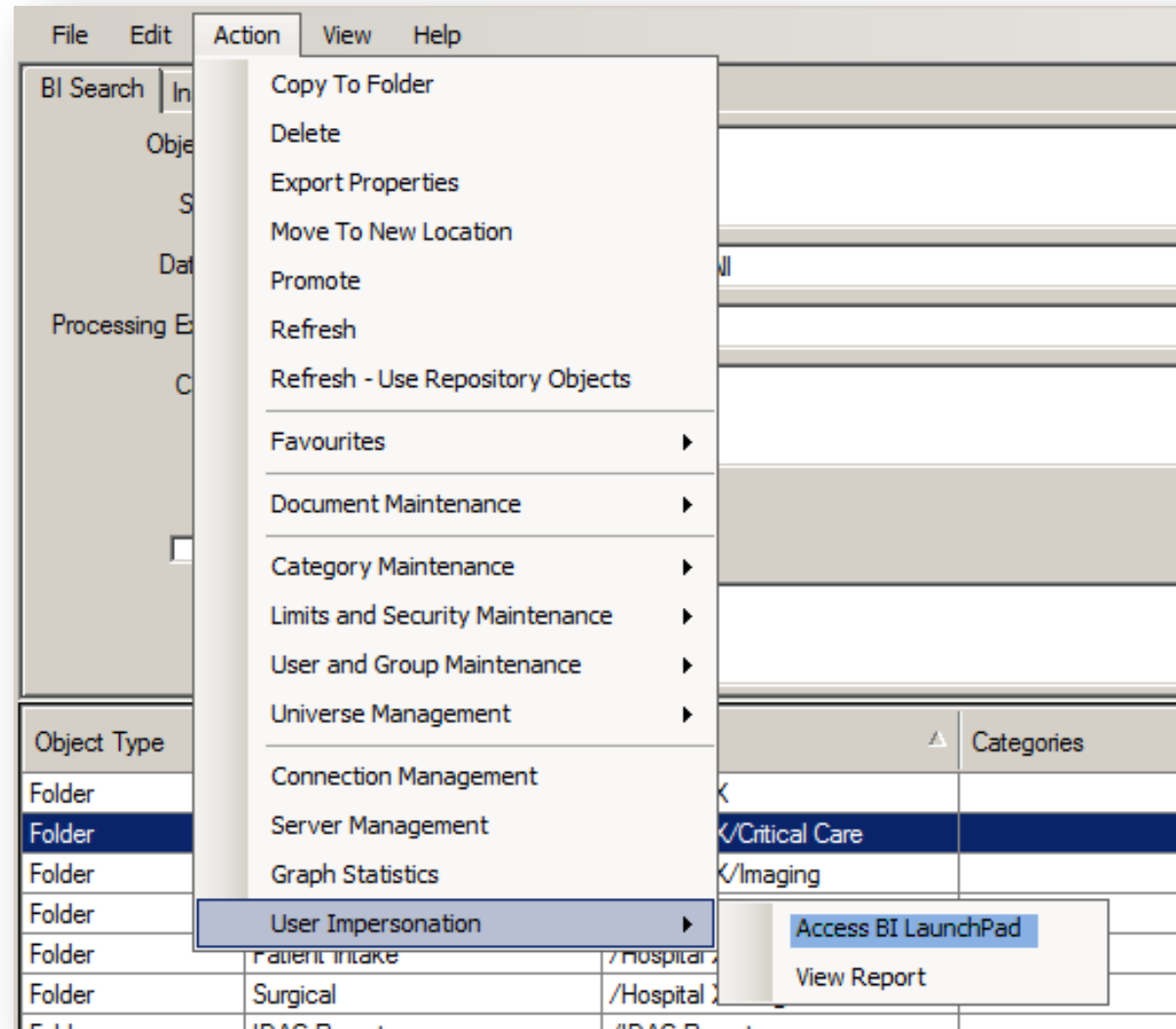
A context menu is open on the right side of the table, showing options: "Advanced / Custom Roles", "Full Control", "Inherit", "No Access", "Schedule", "View", "View On Demand", "Copy", "Export Security To CSV", "Paste", "Restore", "Replace Roles", and "Save".



# Security Management

## Verifying Security:

- Select folder or report to test
- Choose to launch selected report or open selected folder



# Security Management

## Verifying Security

- Choose user account to test
- Choose authentication method
- Ensure that behavior is as expected

The screenshot displays the SAP Business Objects Security Management console. On the left, the 'Object Manager' pane shows a tree view of folders. The 'Critical Care' folder is selected. Below this, a table lists the contents of the selected folder.

Object Type	Name
Folder	Hospital X
Folder	Critical Care
Folder	Imaging
Folder	Palliative Care
Folder	Patient Intake
Folder	Surgical
Folder	IDAC Data

On the right, the 'Choose the method of impersonation to use' dialog box is open. It contains the following sections:

- Choose the method of impersonation to use:**
  - ☐ Use current logged in user
  - ☒ Use provided login credentials
    - User Name: X-Barry
    - Password: [Empty]
    - Authentication: secEnterprise
  - ☐ Use SAP BI Trusted Authentication (must already be configured) [Setup BI Trusted Authentication?](#)
    - User Name: [Empty]
- Token Settings:**
  - Choose the life time (in hours) that you wish to assign to the token: 1
  - [Release Tokens](#)
- URL Settings:**
  - Launchpad URL: http://localhost:8080/BOE/BI/logon/start.do
  - [Launch](#)
  - URL Preview: [Empty]
  - [Generate URL](#) [Copy URL](#) [Launch Preview URL](#)
- ☒ Save authentication method and credentials
- [Close](#)

# Securing Report Content

## Modify Recurring Schedules

- Remove attachments
- Add report viewer hyperlink
- Remove the existing schedules
- Re-schedule

Instance M: Re-schedule with Changes

File Edit

BI Search Insig

Status: All

Object Types: All Object Typ

External ID So  
Read IDs From

Status F  
Pending T  
Pending T  
Pending T  
Pending T  
Pending T  
Success F  
Success F  
Success F  
Success F

Options

☐ Schedule  
☐ use new settings  
☐ use new submitter

☐ Database Logon  
☐ use new settings

☒ Destination  
☒ use new settings

☐ Delivery Rules  
☐ use new settings

☐ Format  
☐ use new settings

☐ Events  
☐ use new settings

☐ Parameters  
☐ use new settings

☐ Print Settings  
☐ use new settings

☐ Server Groups  
☐ use new settings

☐ Notification  
☐ use new settings

☐ Distribution  
☐ use new settings

Destination

Email (SMTP)

☐ Use the adaptive job server defaults  
☒ Set the values to be used at schedule time here:

From: wmbi@apos.com

To: fwalth@apos.com

Cc:

Bcc:

Subject: %SI\_NAME% for you

Message: Click link to Log In to BI Launchpad and view report instance.  
%SI\_VIEWER\_URL%

1 → ☐ Attach report instance Add hyperlink: Add → 2

☐ Default File Name (randomly generated)  
☒ Specified File Name: %SI\_NAME%

Add a placeholder for a variable property: Title Add

☒ Add file extension

Warning: if you do not provide logon info, default settings from the object will be used as we cannot read instance

☒ Delete Original Instances → 3

4 → Re-Schedule

# System Content Settings



## Verify

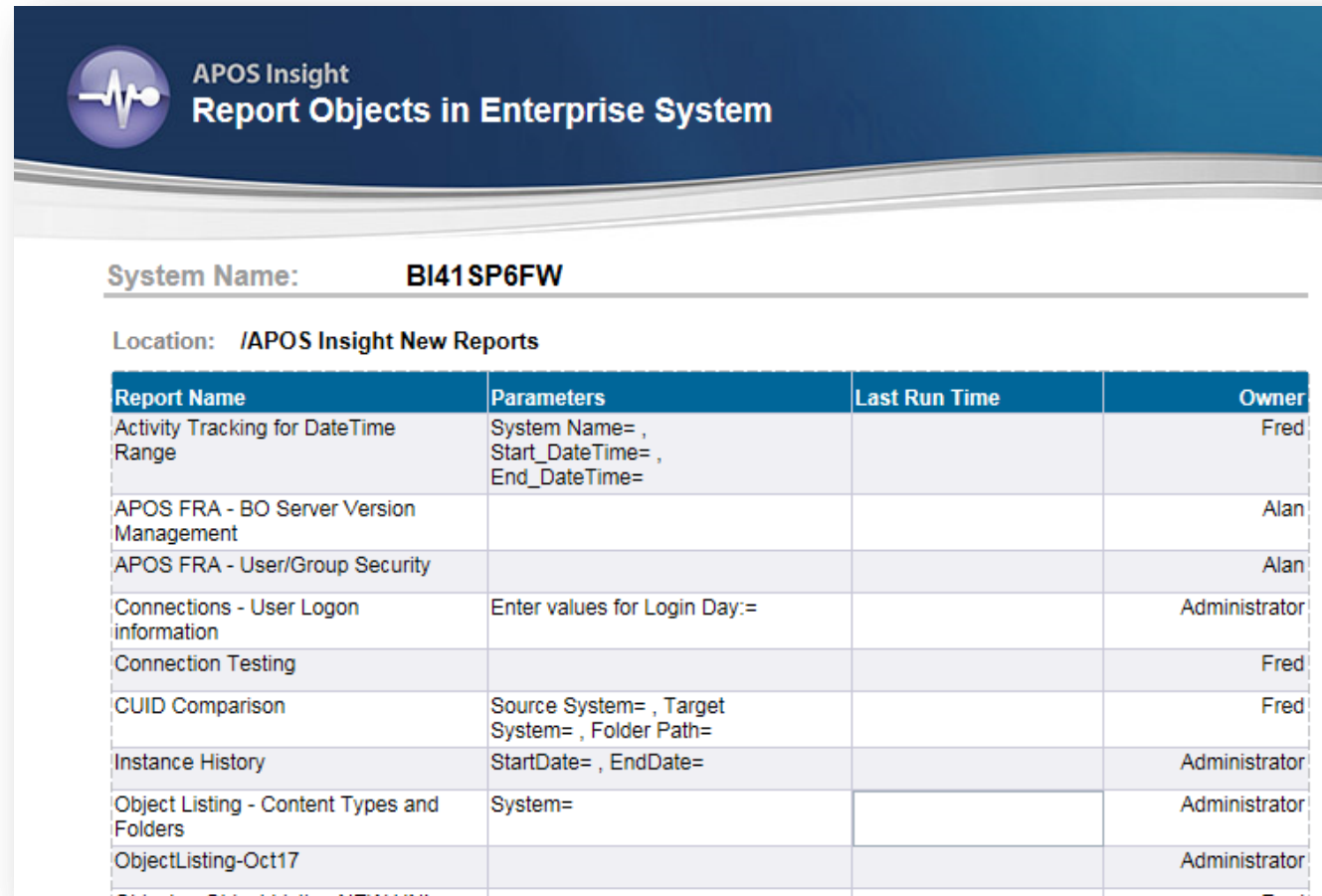
- BI Server settings
  - Are settings appropriate for each BI server
  - Are enough job servers exist
- Folder content
  - Do the folders contain the reports required
  - Have old/legacy reports been purged
  - Are the required historical instances on the system (or available)?
- Report Schedules
  - Are recurring schedules configured and running
- Group Membership
  - Are users in the appropriate groups



- Record and Monitor Server Settings

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# Folder Content



The screenshot shows the 'Report Objects in Enterprise System' interface. At the top, there is a header with the APOS Insight logo and the title 'Report Objects in Enterprise System'. Below the header, the 'System Name' is set to 'BI41SP6FW' and the 'Location' is '/APOS Insight New Reports'. A table lists various reports with their parameters, last run times, and owners.

Report Name	Parameters	Last Run Time	Owner
Activity Tracking for DateTime Range	System Name= , Start_DateTime= , End_DateTime=		Fred
APOS FRA - BO Server Version Management			Alan
APOS FRA - User/Group Security			Alan
Connections - User Logon information	Enter values for Login Day:=		Administrator
Connection Testing			Fred
CUID Comparison	Source System= , Target System= , Folder Path=		Fred
Instance History	StartDate= , EndDate=		Administrator
Object Listing - Content Types and Folders	System=		Administrator
ObjectListing-Oct17			Administrator

- Verify that the folders contain all of the necessary reports

# Required Instances

- Verify that the folders contain all of the required report instances

## APOS Insight Finished Instances

### Webi

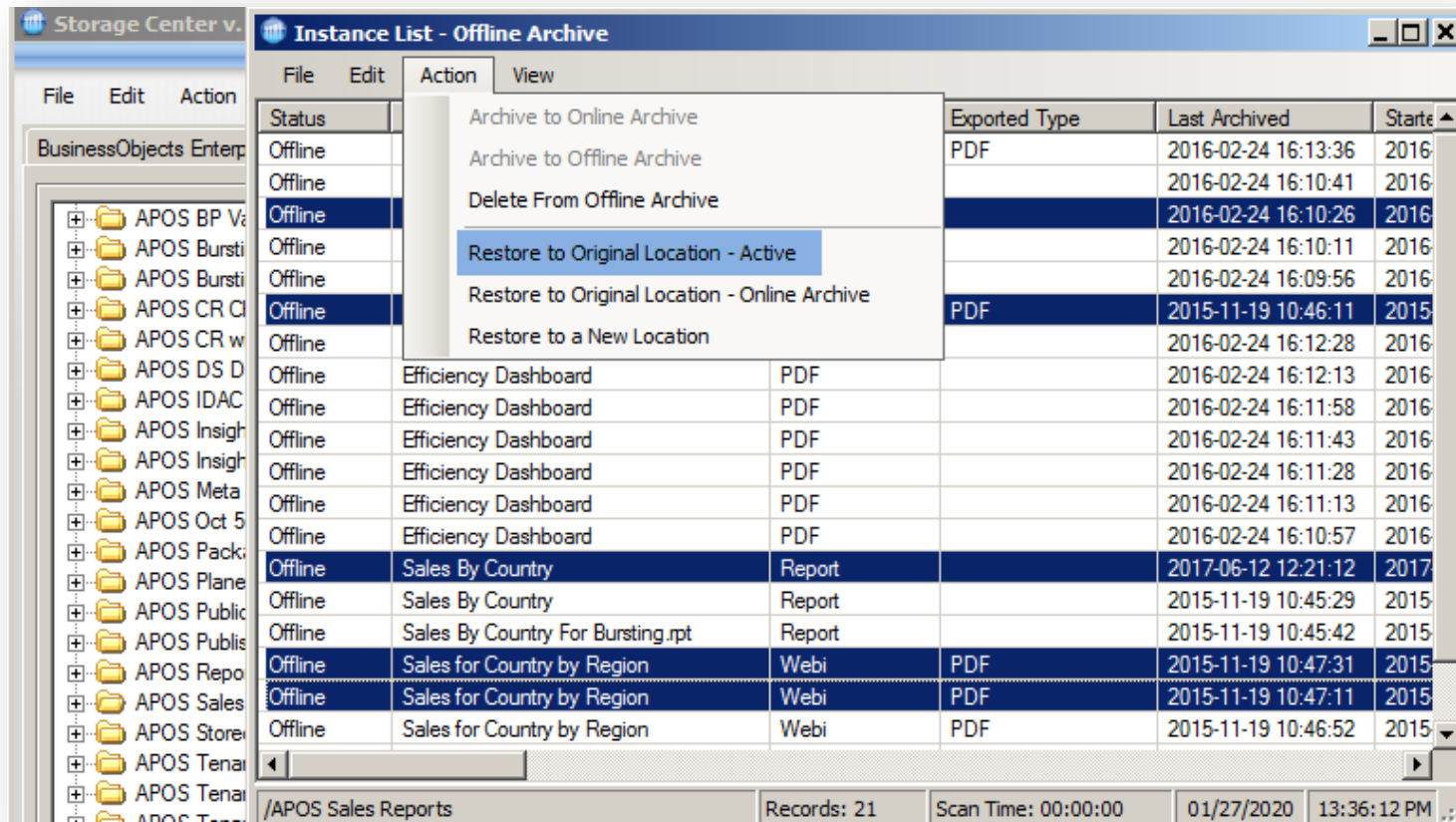
BI41SP6FW

#### SalesByState

Start Time	End Time	Destination	Paramters	Status	Server Used	Submitter
1/30/2018 12:47:58 PM	1/30/2018 12:48:42 PM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator
2/27/2018 8:46:10 AM	2/27/2018 8:46:22 AM	Repository		Success	BI41SP6FW.AdaptiveJobServer	Administrator
3/8/2018 3:52:09 PM	3/8/2018 3:53:29 PM	Repository		Success	BI41SP6FW.AdaptiveJobServer	Administrator
3/12/2018 2:12:21 PM	3/12/2018 2:12:52 PM	Repository		Success	BI41SP6FW.AdaptiveJobServer	Administrator
3/15/2018 10:00:40 AM	3/15/2018 10:00:58 AM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator
3/19/2018 10:00:37 AM	3/19/2018 10:00:52 AM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator
3/23/2018 10:18:03 AM	3/23/2018 10:18:34 AM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator
4/11/2018 11:00:48 AM	4/11/2018 11:01:59 AM	Repository		Success	BI41SP6FW.AdaptiveJobServer	Administrator
4/12/2018 10:00:14 AM	4/12/2018 10:00:32 AM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator
4/16/2018 10:00:54 AM	4/16/2018 10:01:10 AM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator
11/2/2018 2:44:50 PM	11/2/2018 2:44:59 PM	Repository		Success	BI41SP6FW.AdaptiveJobServer	Administrator
11/5/2018 10:12:00 AM	11/5/2018 10:12:02 AM	Repository		Success	BI41SP6FW.AdaptiveJobServer	Administrator
11/8/2018 10:05:54 AM	11/8/2018 10:06:12 AM	Repository		Success	BI41SP6FW.JobServer_CEO	Administrator

# Required Instances

- Restore any required report instances from your Instance Archive





# Data Connectivity



- Have all of the universes that the reports connect to been migrated?
- Do the appropriate data connections exist on the new system?
- Is the appropriate database middleware in place on the new system?
- If using ODBC, are both 32 and 64 bit versions created for each DSN?



# Universe/Report Assignment



APOS Insight

Universe List with Reports

Universe Folder and Name	Number of Reports
Universes/APOS Insight/NIH_Xtreme_Cust_Orders_UNV	226
Universes/APOS Insight/Insight4 - SQL Server	55
Universes/APOS Insight/Insight4 - Oracle	38
Universes/Xtreme/XtremeUNV	36
Universes/webi universes/eFashion	31
Universes/Xtreme/Fred_Xtreme_Universe	30
Universes/Monitoring TrendData Universes/eFashion	26
Universes/Xtreme/Xtreme_Customers	9
Universes/eFashion.unx	7
	7

## Universes/Xtreme/Xtreme\_Customers

Report Folder Location	Report Name	Report Owner	Report File Size
/APOS Multi Source Webi/	MultiSource	Administrator	58415
/APOS RPB Reports/AO and Webi to XLS/	A1_SalesByCountry	Administrator	26745
/APOS RPB Reports/Sales Reports Pkg/	A1_SalesByCountry	Administrator	26745
/APOS Sales Reports/	A1_SalesByCountry	Administrator	26745
/APOS Sales Reports/	Sales_With_Projection	Fred	27680
/C1_Source_Reports/	C1_Sales_Report_01	Administrator	26516
/C1_Source_Reports/	C1_Sales_Report_02	Administrator	26526
/C1_Source_Reports/	C1_Sales_Report_03	Administrator	26519
/C1_Source_Reports/	C1_Sales_Report_04	Administrator	26518

# Data Connections

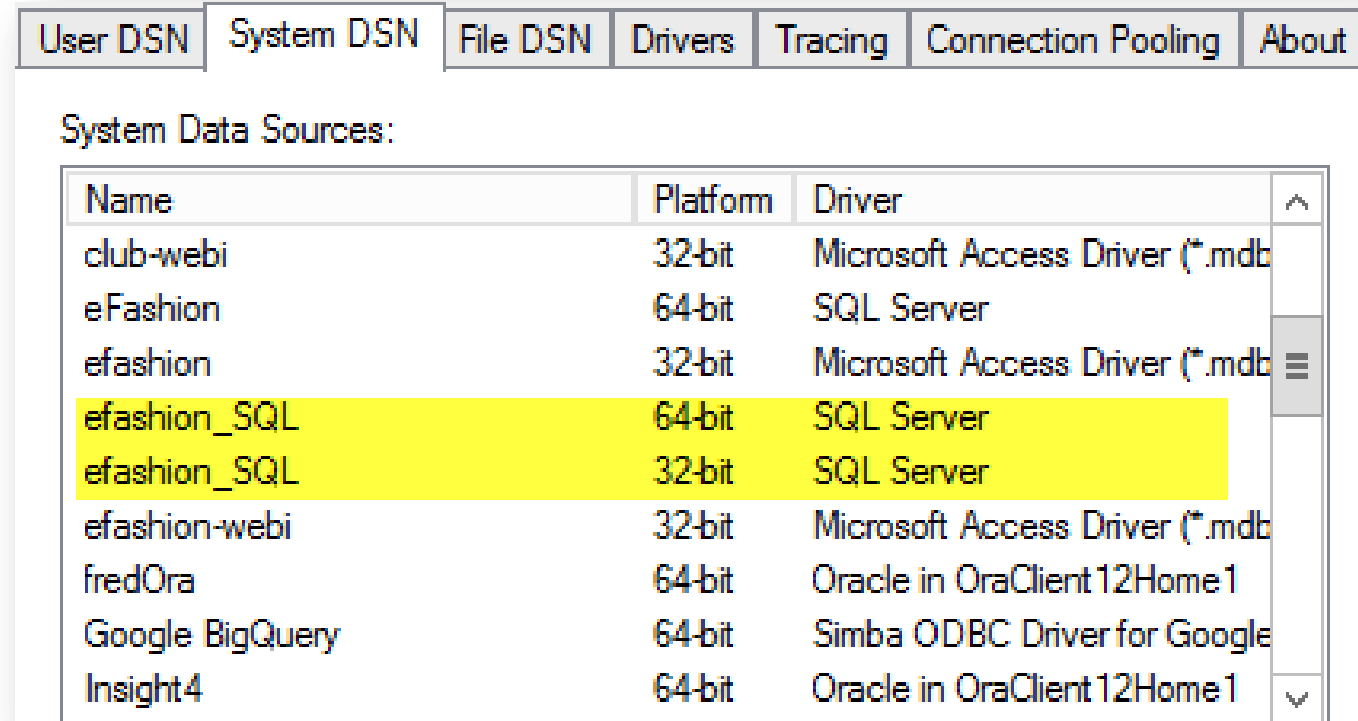
## ***BI Connection Information***

Connection Name	Owner	Created	Network Layer	Database
APOS_Publisher	Administrator	07/12/2017	OLE DB	MS SQL Server 2012
APOS_V2	Fred	08/12/2016	OLE DB	MS SQL Server 2012
APOS_Xtreme	Administrator	07/17/2017	OLE DB	MS SQL Server 2012
Conversion Audit Connection	Administrator	03/12/2008	Oracle OCI	Oracle 10
efashion	Administrator	08/16/2011	ODBC	MS Access 2007
efashion-webi	Administrator	08/16/2011	ODBC	MS Access 2007
Fred JDBC Oracle	Administrator	07/12/2016	JDBC	Oracle 11
Fred_IDAC	Administrator	05/09/2016	JDBC	IDAC V3
Fred_Xtreme	Administrator	02/24/2016	OLE DB	MS SQL Server 2012
IDAC Oracle	Administrator	07/14/2016	JDBC	IDAC V3
IDAC_APOSOrcl	Administrator	07/08/2016	JDBC	IDAC V3
idac_customer_tracker	Fred	09/23/2016	JDBC	IDAC V3
IDAC_Data	Administrator	04/07/2016	OLE DB	MS SQL Server 2012
IDAC_Northwind_Tracking	Fred	09/26/2016	JDBC	IDAC V3
Insight	Administrator	05/24/2016	OLE DB	MS SQL Server 2012
Insight_New	Administrator	07/05/2016	OLE DB	MS SQL Server 2012
Insight_ODBC	Administrator	03/29/2017	ODBC	MS SQL Server 2012
Insight4 - Oracle	Administrator	10/29/2015	Oracle OCI	Oracle 11
Insight4 - SQL Server	Administrator	10/29/2015	ODBC	MS SQL Server 2008
InsightSQLNATIVE	Administrator	10/28/2019	ODBC	MS SQL Server 2008
MetaData_Driver	Administrator	05/05/2016	JDBC	Metadata Driver
Monitoring TrendDB Connection	Administrator	07/29/2015	JDBC	Generic JDBC datasou
NIH_Xtreme_UNV	Administrator	12/30/2015	OLE DB	MS SQL Server 2012
Northwind OLEDB	Administrator	05/06/2016	OLE DB	MS SQL Server 2012
Northwind_IDAC	Administrator	02/08/2016	JDBC	IDAC V3

# ODBC Connections

Data Connections are one area where problems can crop up.

One thing that is commonly missed is the necessity to create both 32 bit and 64 bit DSNs for each ODBC connection.



The screenshot shows the ODBC Administrator window with the 'System DSN' tab selected. The 'System Data Sources' section contains a table listing various ODBC drivers. Two entries, 'efashion\_SQL' for both 64-bit and 32-bit platforms using the 'SQL Server' driver, are highlighted in yellow.

Name	Platform	Driver
club-webi	32-bit	Microsoft Access Driver (*.mdb)
eFashion	64-bit	SQL Server
efashion	32-bit	Microsoft Access Driver (*.mdb)
efashion_SQL	64-bit	SQL Server
efashion_SQL	32-bit	SQL Server
efashion-webi	32-bit	Microsoft Access Driver (*.mdb)
fredOra	64-bit	Oracle in OraClient12Home1
Google BigQuery	64-bit	Simba ODBC Driver for Google
Insight4	64-bit	Oracle in OraClient12Home1

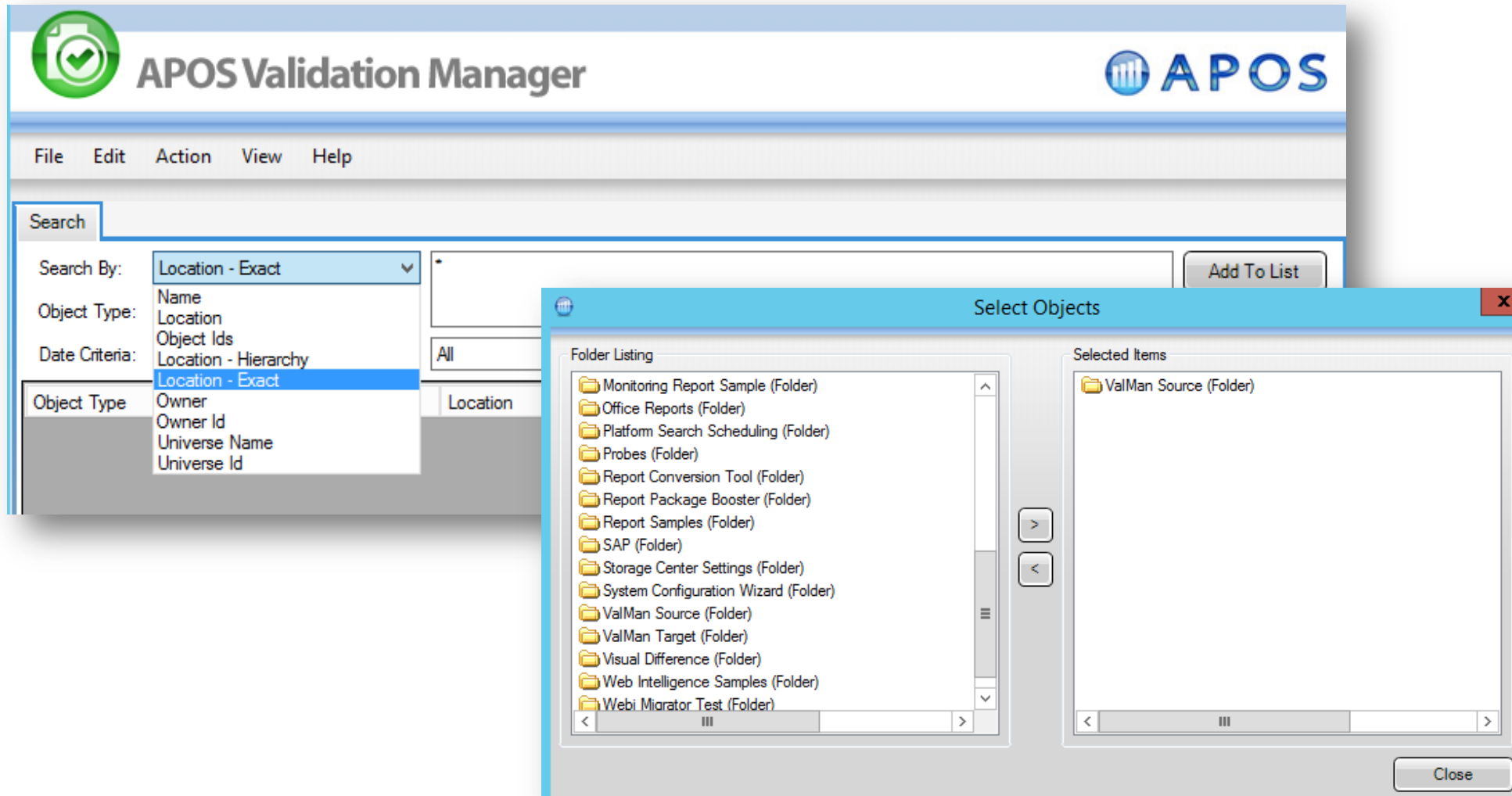
# Validating Content Accuracy




- Does the report output on the new system match the values on the old system?
- Do the reports on the new system process in the same time as the original?




# Insight– BI Report Testing Module – Select Report Objects



# Insight– BI Report Testing Module – Create a Project



APOS Validation Manager



File Edit Action View Help

Search

Search By: Location - Exact

Object Type: All Supported Types

Date Criteria: Created

999717

Add To List

Clear List

Object Type	Name	Location	Owner	Created	Modified	Description
Webi	Sales for Selected States		Administrator	2019/07/18 15:50:46	2019/12/03 09:21:07	
Webi	Sales for Selected Store		Administrator	2019/07/18 15:51:13	2019/12/03 09:21:29	
Webi	Sales for Selected Year		Administrator	2019/07/17 11:35:04	2019/12/03 09:21:46	

Delete

Export to InfoScheduler XML

Export Properties

Add to Project

New Project...

Open Existing Project...

APOS

File name: 2020-1-28-Migration Project 1.avp

Save as type: APOS Validation Projects (\*.avp)

Hide Folders

Save

Cancel

Search Projects

Size

20 KB

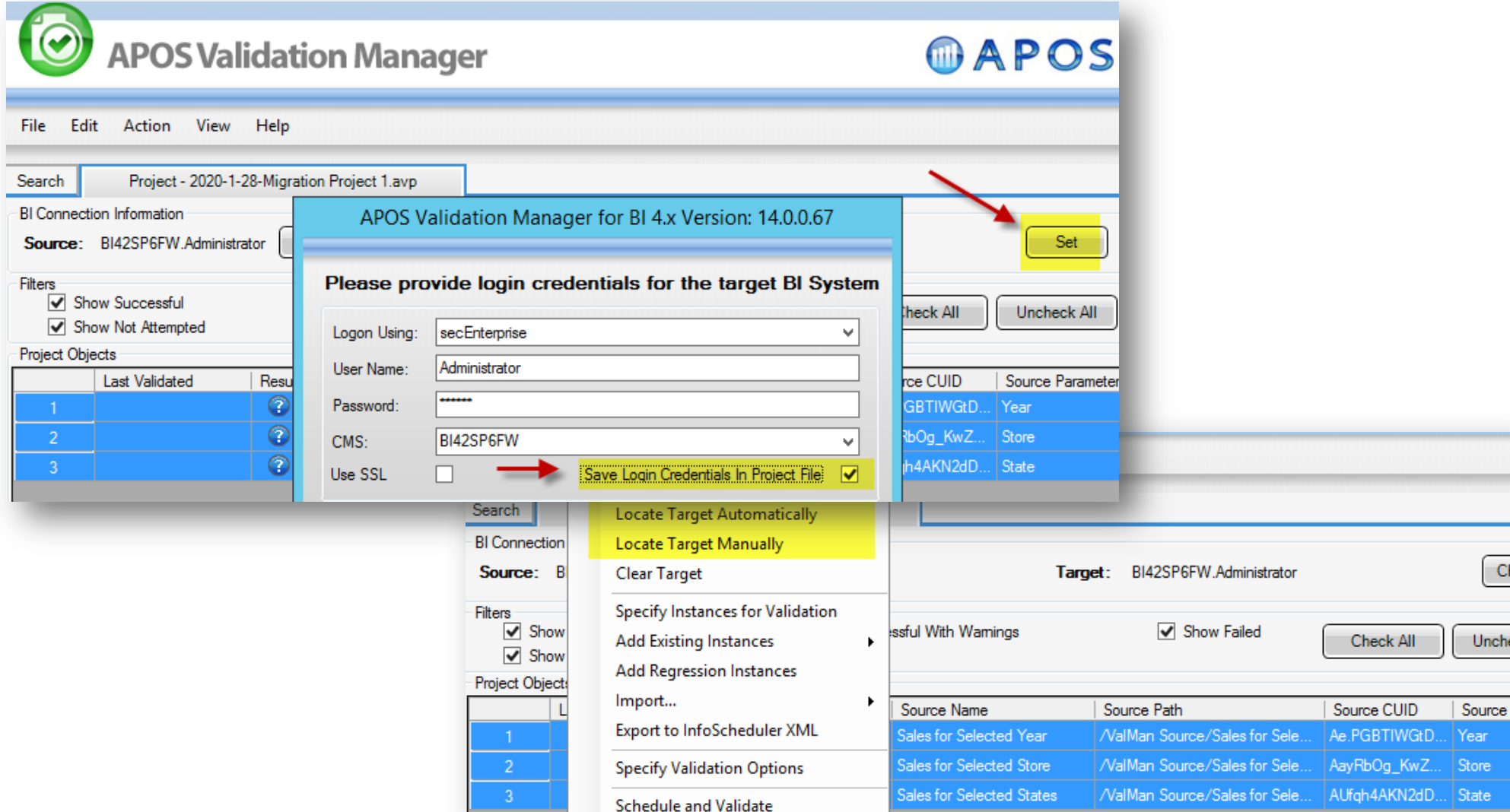
14 KB

13 KB

15 KB

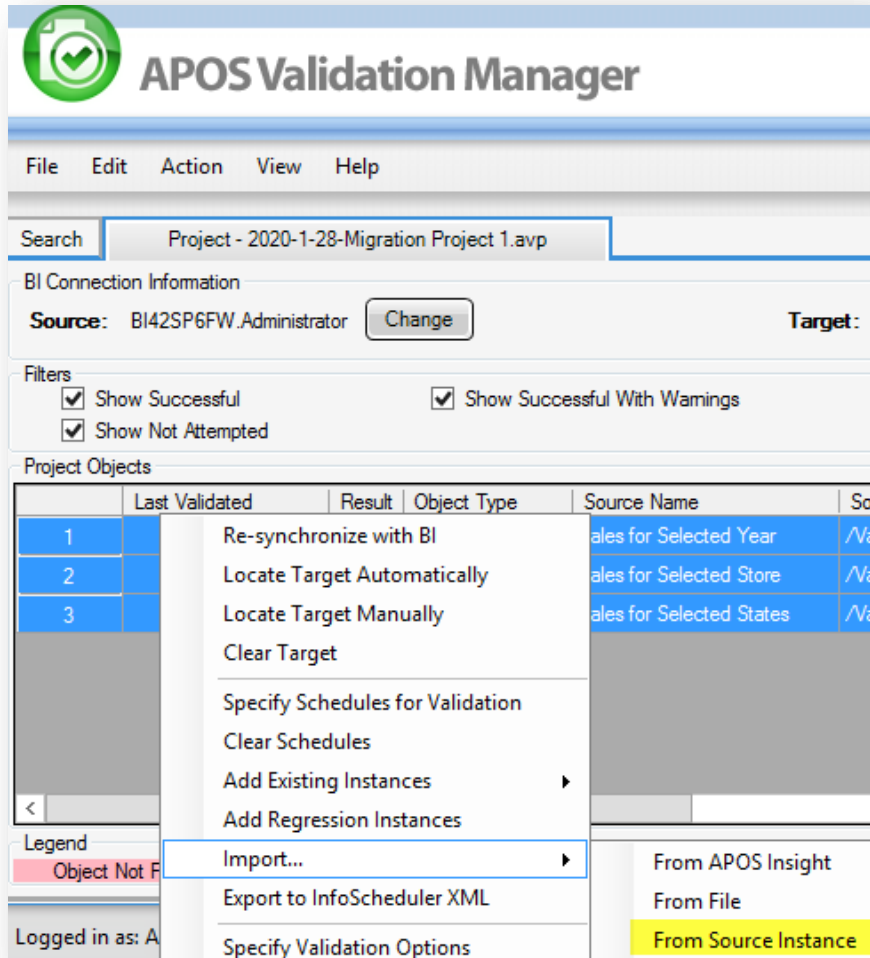
27 KB

# Insight– BI Report Testing Module – Connect to Target System





# Insight– BI Report Testing Module – Import Schedules as Starting Point



The APOS Validation Manager interface features a menu bar (File, Edit, Action, View, Help) and a search bar. The main area is divided into sections: BI Connection Information (Source: BI42SP6FW.Administrator, Target:), Filters (Show Successful, Show Successful With Warnings, Show Not Attempted), and Project Objects. A context menu is open over the Project Objects table, showing options like 'Import...' and 'From Source Instance'.

**Project Objects Table:**

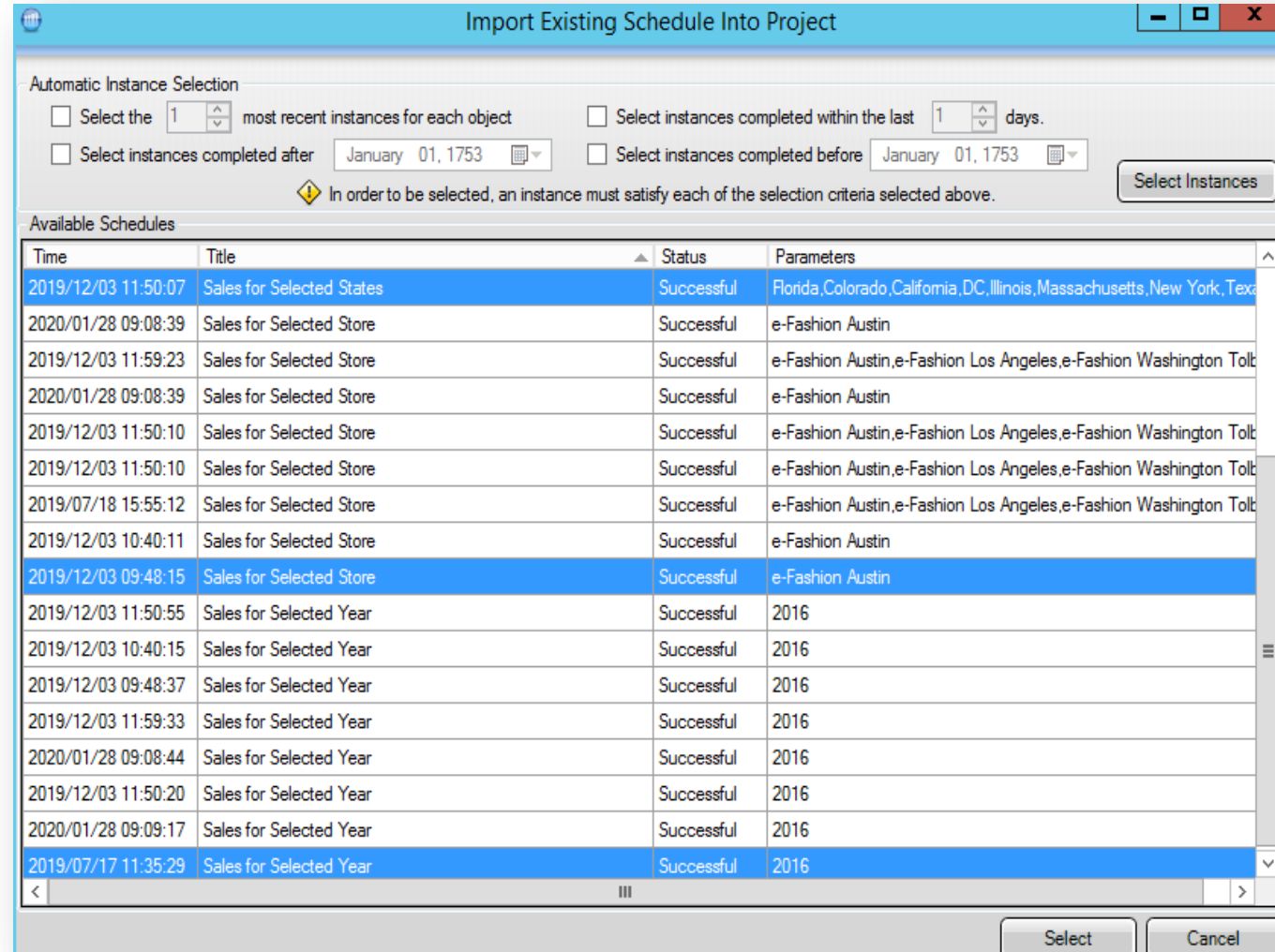
	Last Validated	Result	Object Type	Source Name	So
1			Re-synchronize with BI	ales for Selected Year	/Va
2			Locate Target Automatically	ales for Selected Store	/Va
3			Locate Target Manually	ales for Selected States	/Va

**Context Menu Options:**

- Re-synchronize with BI
- Locate Target Automatically
- Locate Target Manually
- Clear Target
- Specify Schedules for Validation
- Clear Schedules
- Add Existing Instances
- Add Regression Instances
- Import... (highlighted)
- Export to InfoScheduler XML
- Specify Validation Options

**Import... Sub-menu:**

- From APOS Insight
- From File
- From Source Instance (highlighted)

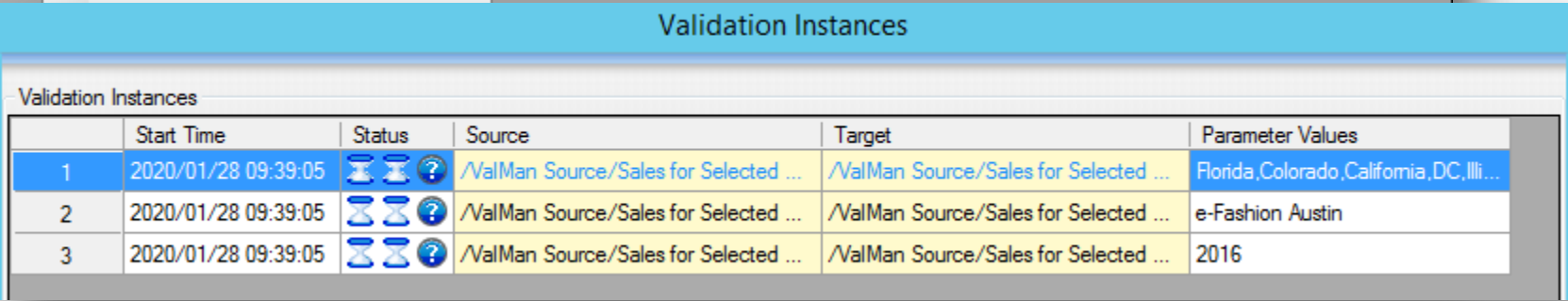


The 'Import Existing Schedule Into Project' dialog box includes an 'Automatic Instance Selection' section with checkboxes for selecting recent instances, instances completed within a specified time frame, and instances completed after/before a specific date. A 'Select Instances' button is present. Below is a table of 'Available Schedules' with columns for Time, Title, Status, and Parameters.

**Available Schedules Table:**

Time	Title	Status	Parameters
2019/12/03 11:50:07	Sales for Selected States	Successful	Florida,Colorado,California,DC,Illinois,Massachusetts,New York,Texas
2020/01/28 09:08:39	Sales for Selected Store	Successful	e-Fashion Austin
2019/12/03 11:59:23	Sales for Selected Store	Successful	e-Fashion Austin,e-Fashion Los Angeles,e-Fashion Washington Tolb
2020/01/28 09:08:39	Sales for Selected Store	Successful	e-Fashion Austin
2019/12/03 11:50:10	Sales for Selected Store	Successful	e-Fashion Austin,e-Fashion Los Angeles,e-Fashion Washington Tolb
2019/12/03 11:50:10	Sales for Selected Store	Successful	e-Fashion Austin,e-Fashion Los Angeles,e-Fashion Washington Tolb
2019/07/18 15:55:12	Sales for Selected Store	Successful	e-Fashion Austin,e-Fashion Los Angeles,e-Fashion Washington Tolb
2019/12/03 10:40:11	Sales for Selected Store	Successful	e-Fashion Austin
2019/12/03 09:48:15	Sales for Selected Store	Successful	e-Fashion Austin
2019/12/03 11:50:55	Sales for Selected Year	Successful	2016
2019/12/03 10:40:15	Sales for Selected Year	Successful	2016
2019/12/03 09:48:37	Sales for Selected Year	Successful	2016
2019/12/03 11:59:33	Sales for Selected Year	Successful	2016
2020/01/28 09:08:44	Sales for Selected Year	Successful	2016
2019/12/03 11:50:20	Sales for Selected Year	Successful	2016
2020/01/28 09:09:17	Sales for Selected Year	Successful	2016
2019/07/17 11:35:29	Sales for Selected Year	Successful	2016

## Execute Validation



# Insight– BI Report Testing Module – Analyze Results

The screenshot displays the 'Validation Instances' application window. On the left, a sidebar contains a 'Filter Results' section with a 'By Start Time:' dropdown, a table of 'Validation Instances', a 'Legend' with a 'Pending' status indicator, and a 'Validation Progress' section. The main area is titled 'View Instance Details' and shows the details for a selected instance, '/Sales for Selected States'.

**Validation Instances Table:**

	Start T
1	2020/0
2	2020/0
3	2020/0

**Selected Instances:** /Sales for Selected States

**Scheduling Details:**

**Source:** ID: 3125821 CUID: AWfWLA9y7MtChpp3gWk6\_.l Status: Instance Created: Tuesday, January 28, 2020 at 09:39:05 Path: /ValMan Source/Sales for Selected States/Sales for Selected States Error Message:

**Target:** ID: 3125822 CUID: AR.blWHjWhFOixrT0.BshvQ Status: Instance Created: Tuesday, January 28, 2020 at 09:39:05 Path: /ValMan Source/Sales for Selected States/Sales for Selected States Error Message:

**Validation Details:** Last Validated: Tuesday, January 28, 2020 at 09:40:00 Status: Validation Log: Validation Succeeded! Validation Time: 1/28/2020 9:40:00 AM Source location: /ValMan Source/Sales for Selected States/Sales for Selected States@BI42SP6FW

Close

# Insight– BI Report Testing Module – Important Settings

**Tolerance Warning Thresholds**

Warn when total runtime duration differential exceeds  seconds

☐ Always Warn ☒ Only warn when target is slower

☐ Never Warn ☐ Only warn when source is slower

**Scheduling Options**

Schedule Crystal Reports Instances using format:


Schedule new instances as:

**Logging Options**

☒ Enable Auto Refresh Log

**Validation Settings**

☒ Perform Validation ☒ Generate Statistics Log

☒ Display validation Progress ☐ Send email alerts 

☒ Ignore invisible characters

Maximum number of simultaneous validations

Restrict validation to

☐ First  KB ☐ Last  KB

☐ Specified columns:

Example: A, C-E, G will validate columns A, C, D, E, G.

☐ Skip first  rows

# Optimizing Performance



- Is BI and OS resource consumption within identified tolerances?
  - CPU
  - Memory
  - Disk space
- Can On-Demand reports be changed to Recurring Schedules?
  - Analyze underlying data refresh activity
  - Remove right to refresh in certain folders



# Resource Usage

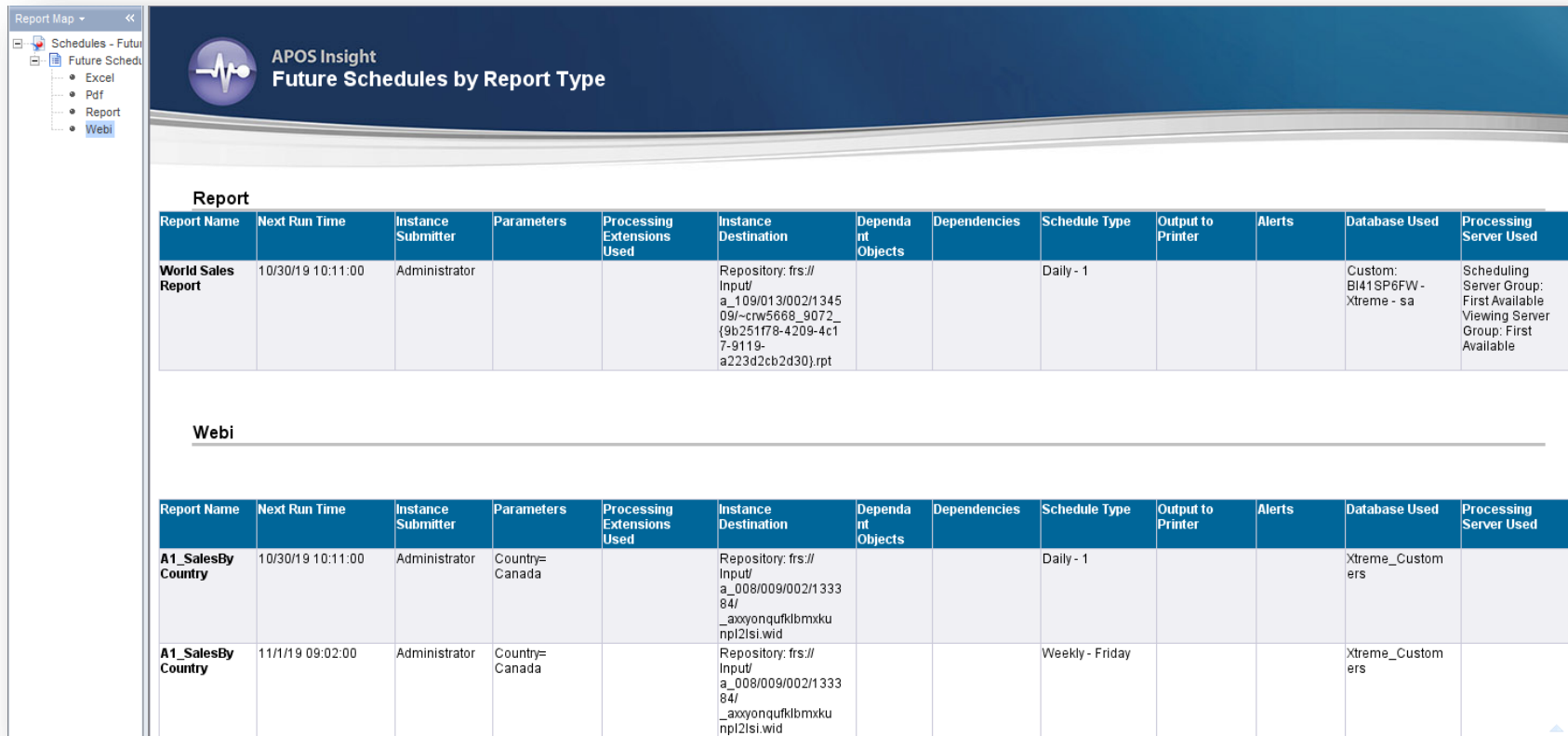
- Verify the resource usage of important services

**Resource Usage Comparison - pre and post migration**

		10/17/2019	1/27/2020
CMS	AP_WorkingSet64	2,366,789,222.40	2,193,700,181.33
	AP_NonpagedSystemMemorySize64	4,446,835.20	4,128,845.33
	AP_PeakPagedMemorySize64	2,438,184,140.80	2,260,682,069.33
	AP_PeakVirtualMemorySize64	2,719,865,241.60	2,535,374,848.00
	AP_PrivilegedProcessorTime	34,658,271.80	8,084,396.00
	AP_UserProcessorTime	18,045,493.80	8,266,703.33
	AP_VirtualMemorySize64	2,713,376,358.40	2,531,472,725.33
	AP_ThreadsCount	145.80	149.00
	AP_ProcessorUsagePercent	70.40	0.00
Connection Server	AP_WorkingSet64	58,719,436.80	51,916,800.00
	AP_NonpagedSystemMemorySize64	62,137.60	59,128.00
	AP_PeakPagedMemorySize64	36,455,219.20	28,160,000.00
	AP_PeakVirtualMemorySize64	345,845,760.00	382,836,736.00
	AP_PrivilegedProcessorTime	88,106.20	51,291.67
	AP_UserProcessorTime	94,147.00	63,739.67
	AP_VirtualMemorySize64	337,247,436.80	377,593,856.00
	AP_ThreadsCount	78.80	77.00
	AP_ProcessorUsagePercent	0.00	0.00
Connection Server32	AP_WorkingSet64	50,820,710.40	55,552,682.67
	AP_NonpagedSystemMemorySize64	69,643.20	76,528.00
	AP_PeakPagedMemorySize64	39,428,096.00	38,445,056.00
	AP_PeakVirtualMemorySize64	301,481,984.00	388,595,712.00
	AP_PrivilegedProcessorTime	83,175.00	60,448.33
	AP_UserProcessorTime	103,196.80	78,422.00
	AP_VirtualMemorySize64	290,734,080.00	382,042,112.00
	AP_ThreadsCount	95.80	94.00
	AP_ProcessorUsagePercent	0.00	0.00

# Schedule Analysis

- Analyze Recurring Schedules



The screenshot shows the 'APOS Insight Future Schedules by Report Type' interface. On the left is a 'Report Map' sidebar with a tree view containing 'Schedules - Future', 'Future Sched...', 'Excel', 'Pdf', 'Report', and 'Webi'. The main content area has a dark blue header with the APOS Insight logo and title. Below the header, there are two sections: 'Report' and 'Webi', each containing a table of schedule data.

Report												
Report Name	Next Run Time	Instance Submitter	Parameters	Processing Extensions Used	Instance Destination	Dependent Objects	Dependencies	Schedule Type	Output to Printer	Alerts	Database Used	Processing Server Used
World Sales Report	10/30/19 10:11:00	Administrator			Repository: frs:// Input/ a_109/013/002/1345 09/~crw5668_9072_ {9b251f78-4209-4c1 7-9119- a223d2cb2d30}.rpt			Daily - 1			Custom: BI41SP6FW - Xtreme - sa	Scheduling Server Group: First Available Viewing Server Group: First Available

Webi												
Report Name	Next Run Time	Instance Submitter	Parameters	Processing Extensions Used	Instance Destination	Dependent Objects	Dependencies	Schedule Type	Output to Printer	Alerts	Database Used	Processing Server Used
A1_SalesBy Country	10/30/19 10:11:00	Administrator	Country= Canada		Repository: frs:// Input/ a_008/009/002/1333 84/ _axxyonqufklbmxxu npl2lsi.wid			Daily - 1			Xtreme_Custom ers	
A1_SalesBy Country	11/1/19 09:02:00	Administrator	Country= Canada		Repository: frs:// Input/ a_008/009/002/1333 84/ _axxyonqufklbmxxu npl2lsi.wid			Weekly - Friday			Xtreme_Custom ers	

# Ongoing Quality Assurance



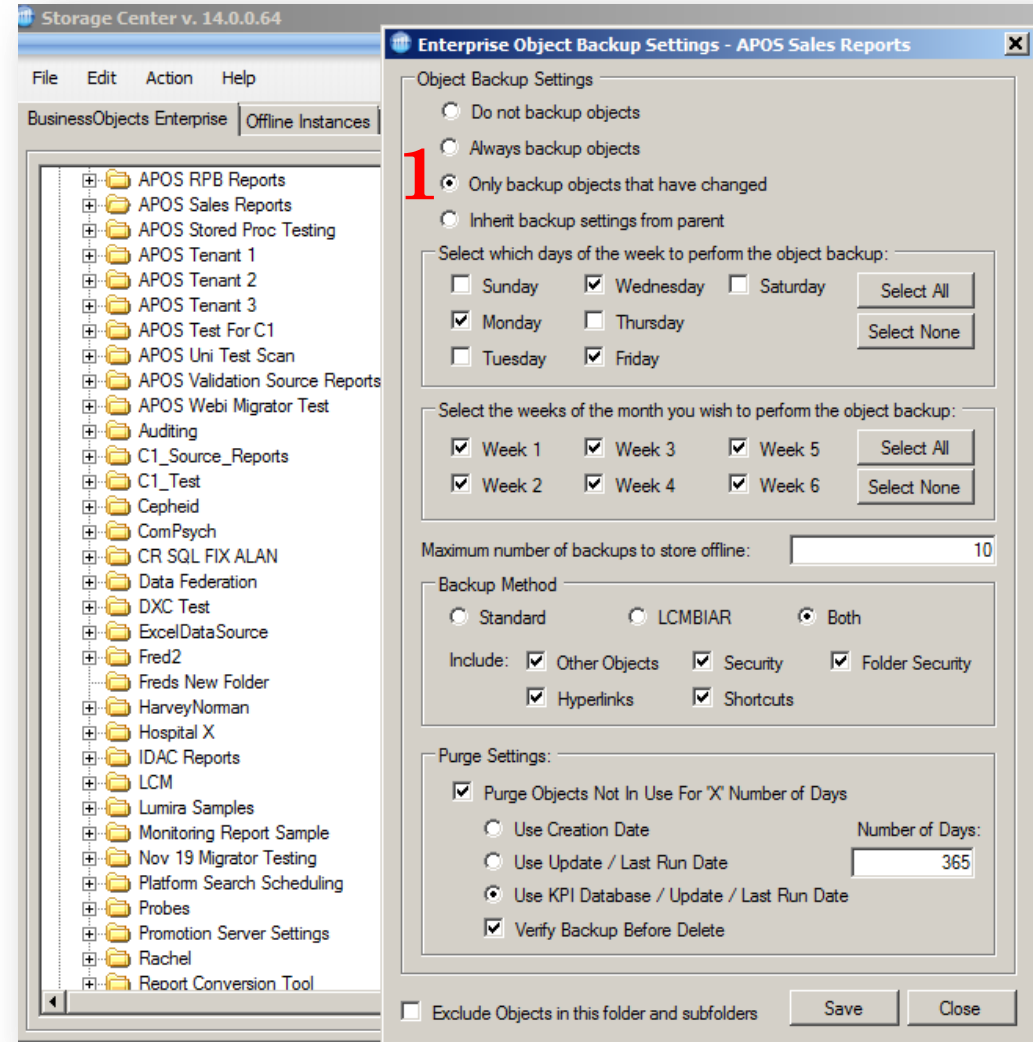
- Content Management strategy in place and tested periodically
- Automated clean-up
  - Remove objects after a period of non-usage (after ensuring a backup)
- Regression Testing
  - New content, Semantic layer changes, Report modifications
- Monitoring of key elements
  - Instance Monitoring
  - Schedule Monitoring
  - Resource monitoring
- Meticulous/Methodical Administration
  - Eliminate potential for human error





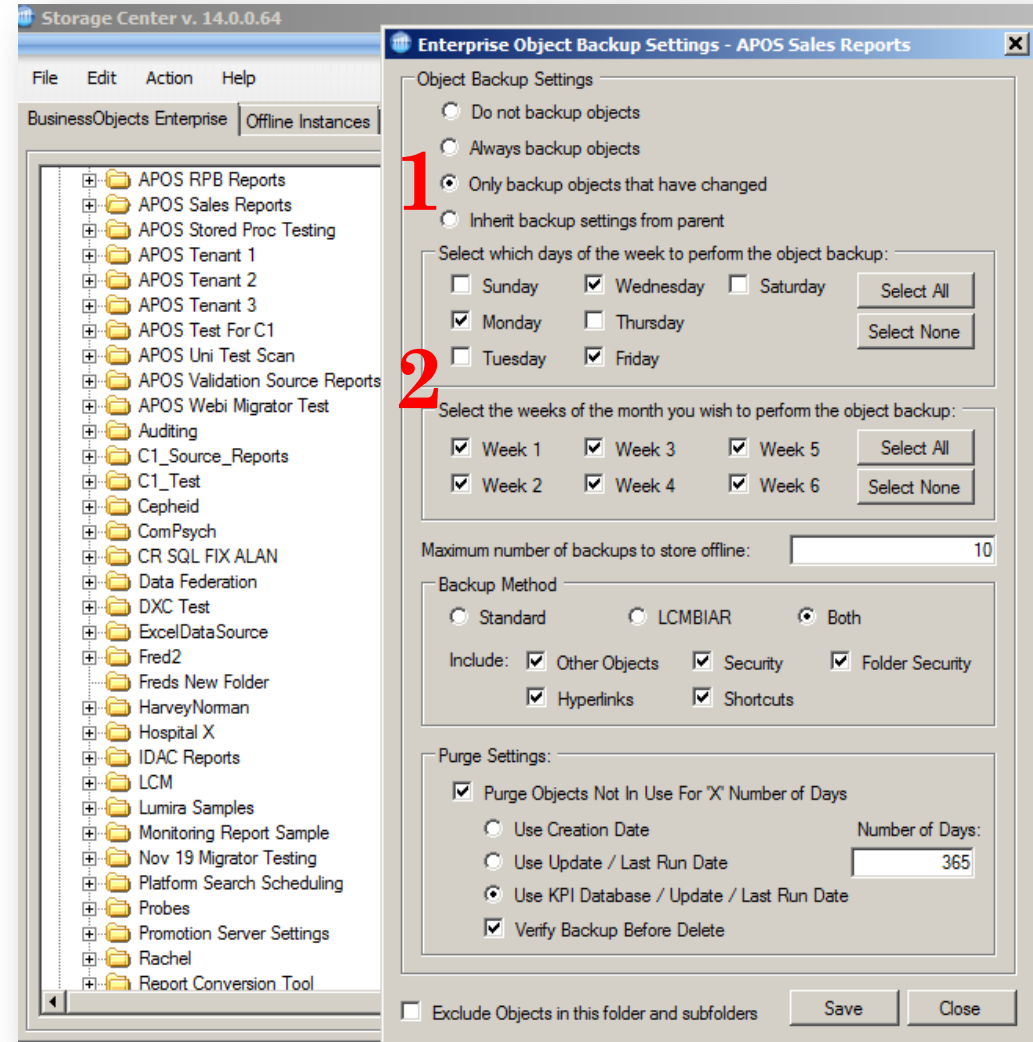
# Content Management Strategy

1. How should backups occur?



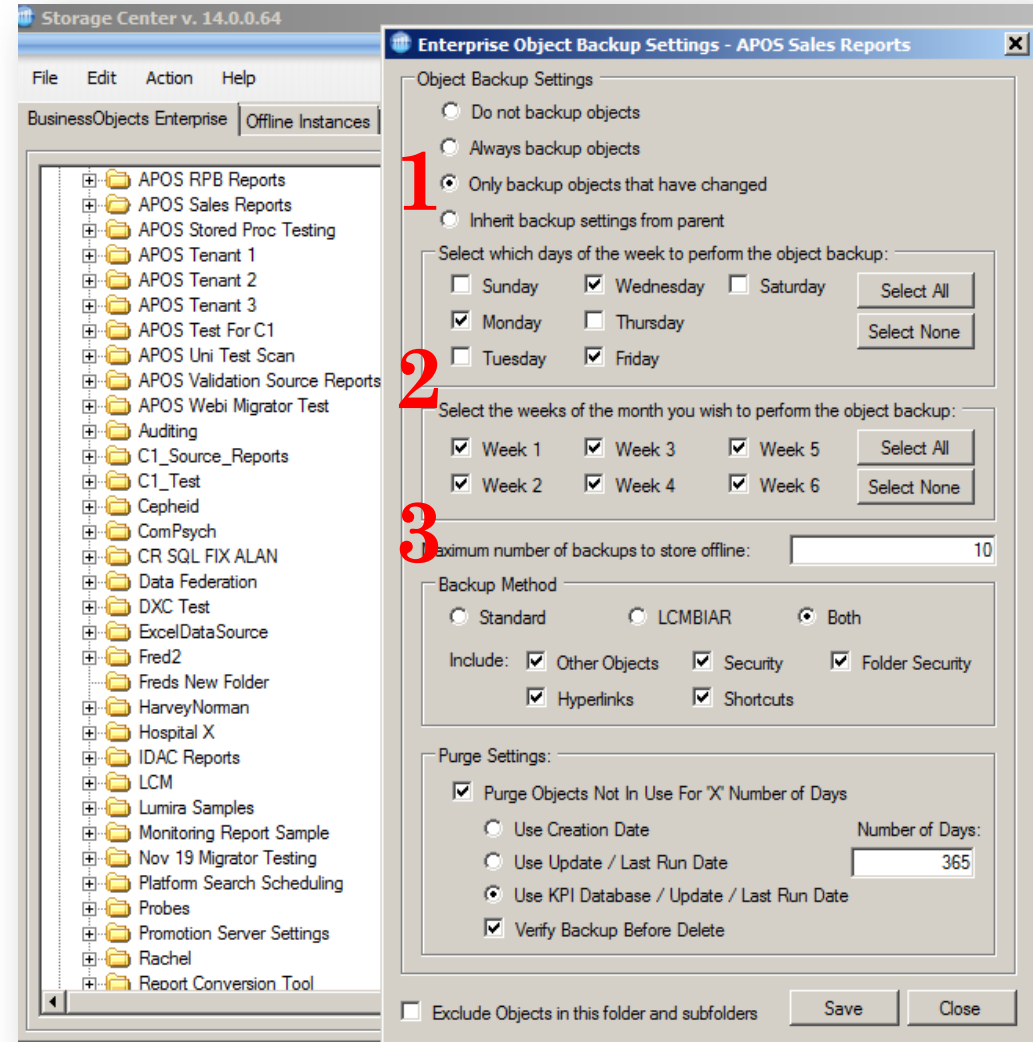
# Content Management Strategy

1. How should backups occur?
2. When should backups occur?



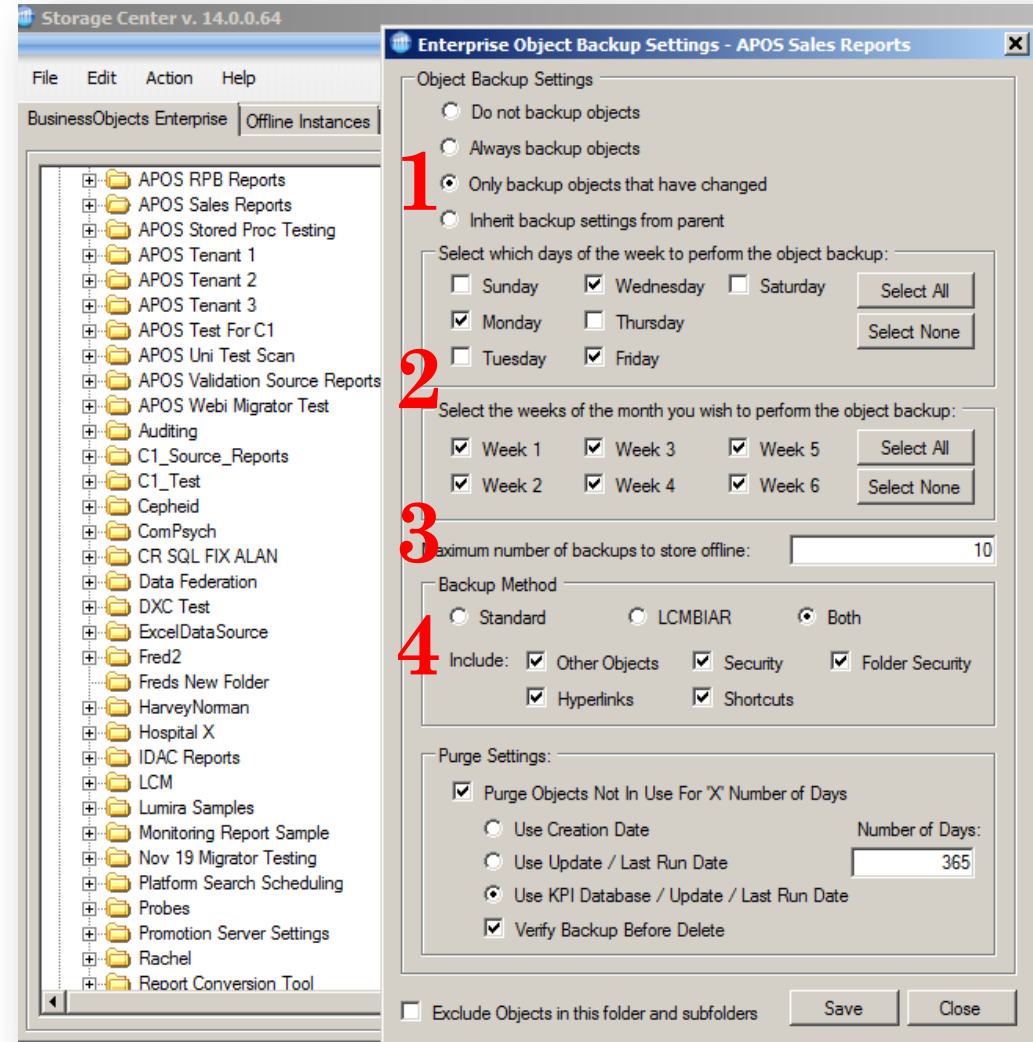
# Content Management Strategy

1. How should backups occur?
2. When should backups occur?
3. How many versions should be kept?



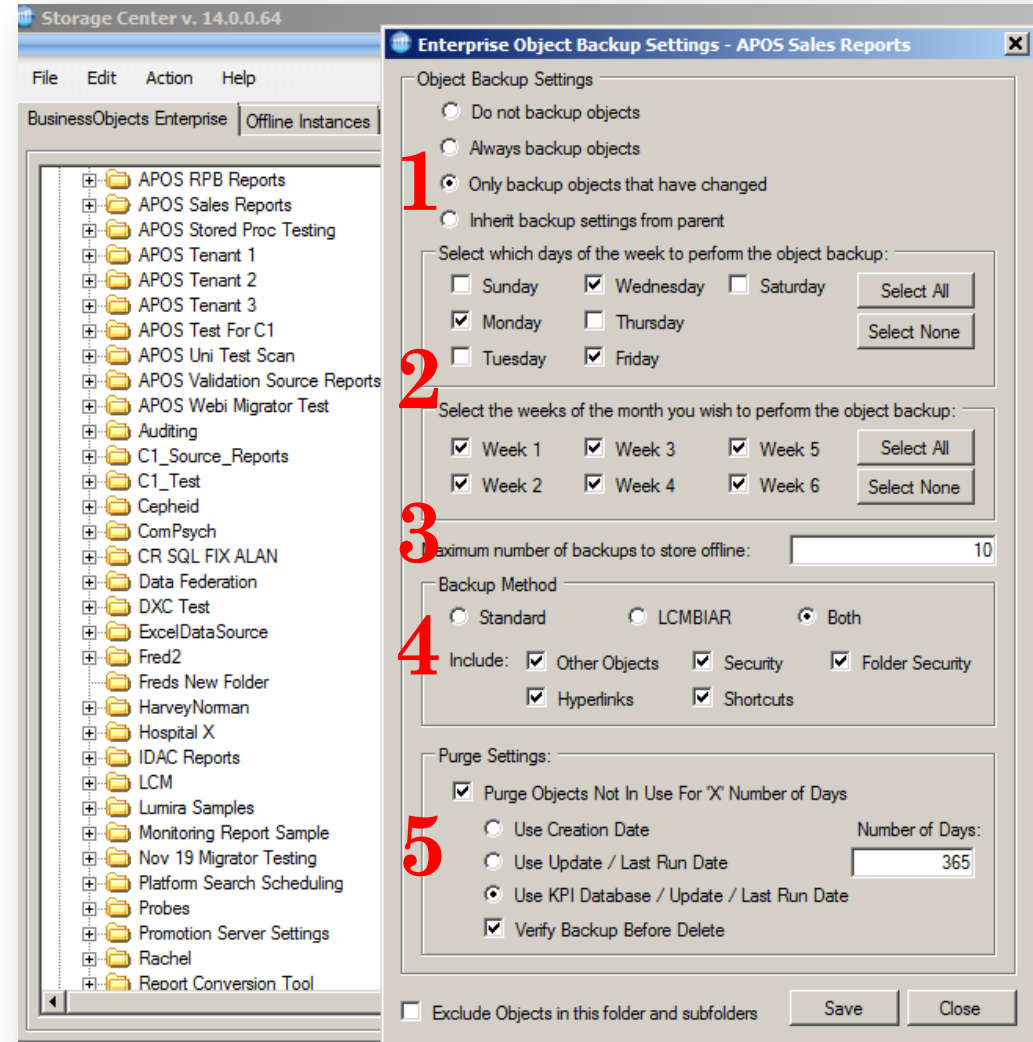
# Content Management Strategy

1. How should backups occur?
2. When should backups occur?
3. How many versions should be kept?
4. What method of backup should be used?

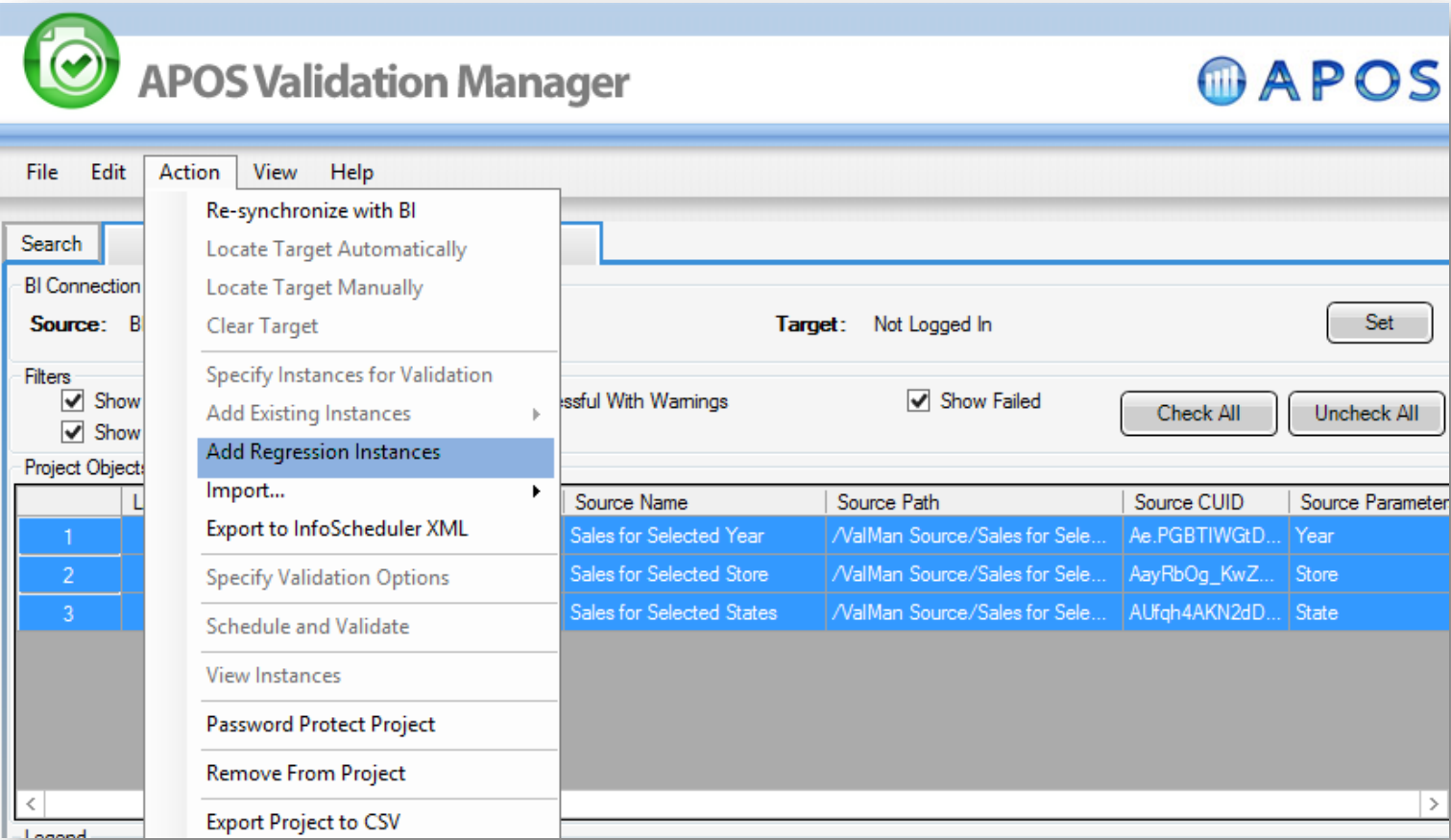


# Content Management Strategy

1. How should backups occur?
2. When should backups occur?
3. How many versions should be kept?
4. What method of backup should be used?
5. Create a strategy around automated cleanup of unused objects.



# Insight– BI Report Testing Module – Regression Testing



# Instance and Schedule Tracking

## Instance Tracking Management

Please enter the tracking information:

System Name:

Notification Type:

BOE Profile:

Instance Threshold:  ( number of failed instances before notification is sent )

Message Information | Excluded Errors

Email To:

Title:

Message:

Message Header:

Message Includes:

- ☒ Report Name
- ☒ Start Time
- ☒ End Time
- ☒ Error Message
- ☒ Parameter Values
- ☒ Selection Formula (Crystal Reports Only)
- ☒ Frequency
- ☒ Submitter

SNMP Settings

☐ Send an SNMP Trap using Profile:

## Schedule Tracking Management

Please enter the tracking information:

System Name:

Notification Type:

BOE Profile:

Threshold:  ( number of minutes before notification is sent )

Message Information:

Email To:

☐ Send a notification to the SAP BI Administrator ☐ Send a notification to the schedule owner

Title:

Message:

Message Header:

Message Includes:

- ☒ Report Name
- ☒ Start Time
- ☒ End Time
- ☒ Error Message
- ☒ Parameter Values
- ☒ Selection Formula (Crystal Reports Only)
- ☒ Frequency
- ☒ Submitter

SNMP Settings

☐ Send an SNMP Trap using Profile:

# Monitoring Key Elements

Description: APOS Insight Process Monitor - Performs monitoring of selected processes

Service Profiles   Service Settings   Service Log On

**Select the processes you would like to monitor**

tomcat8 at BI42SP6FW (1), Number of Metrics Tracked: 2  
WIRReportServer at BI42SP6FW (1), Number of Metrics Tracked: 1  
JobServer at BI42SP6FW (1), Number of Metrics Tracked: 1  
CMS at BI42SP6FW (1), Number of Metrics Tracked: 1  
java at BI42SP6FW (1), Number of Metrics Tracked: 1

**Please define the metric you would like to monitor:**

Metric Name: PrivateMemorySize64

From Value: 0 To Value: 1447260

Alert Raised   Alert Cancelled

Raise an alert after 0 seconds of the metric being out of range ☒ Log to database

☒ Email when the alert is raised

Email Addresses: fwalthers@apos.com

☐ Run a script when the alert is raised

Script Path:

☐ Send an SNMP Trap when the alert is raised

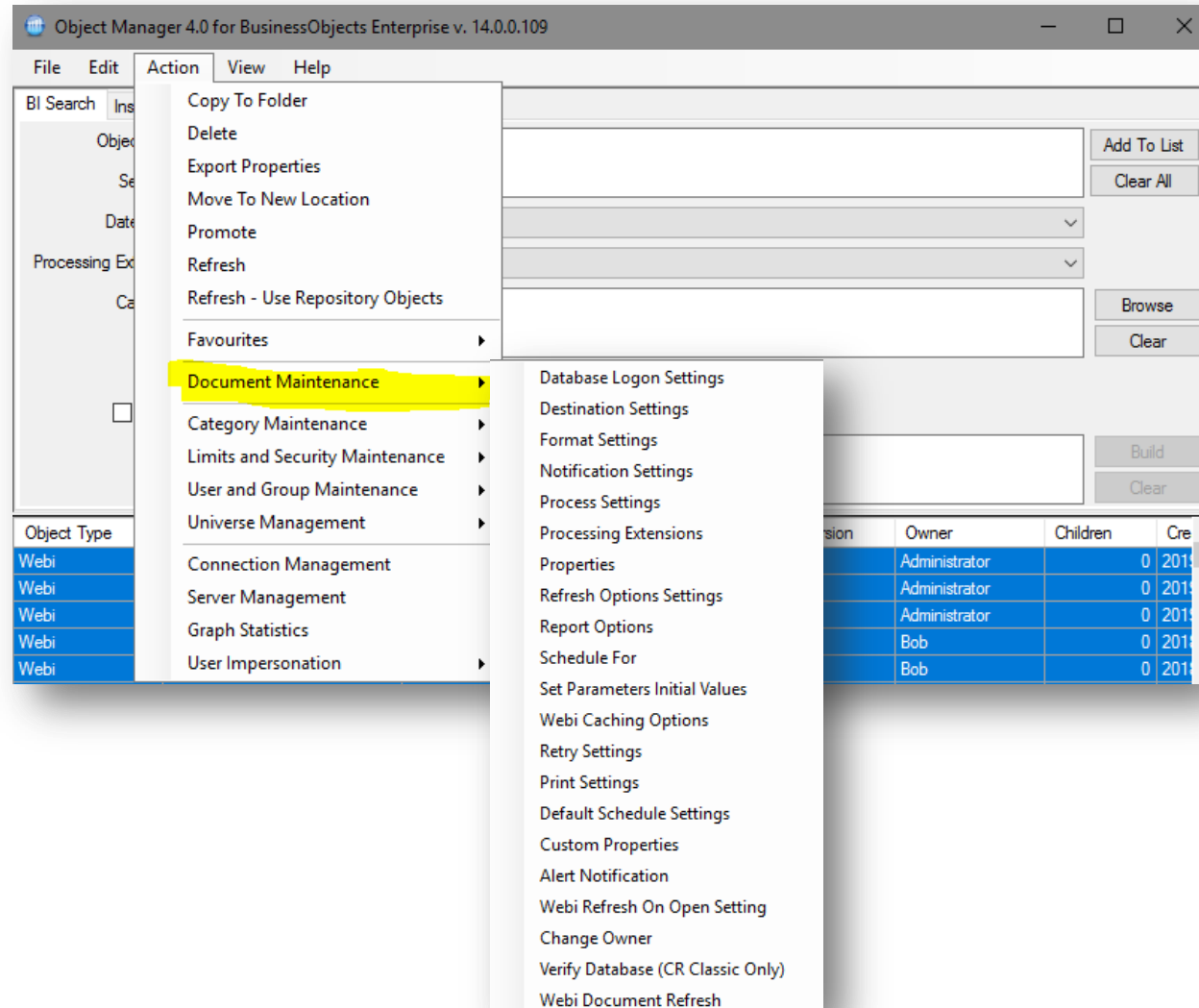
SNMP Profile: < Default Profile >



# Methodical Administration – APOS Object Manager

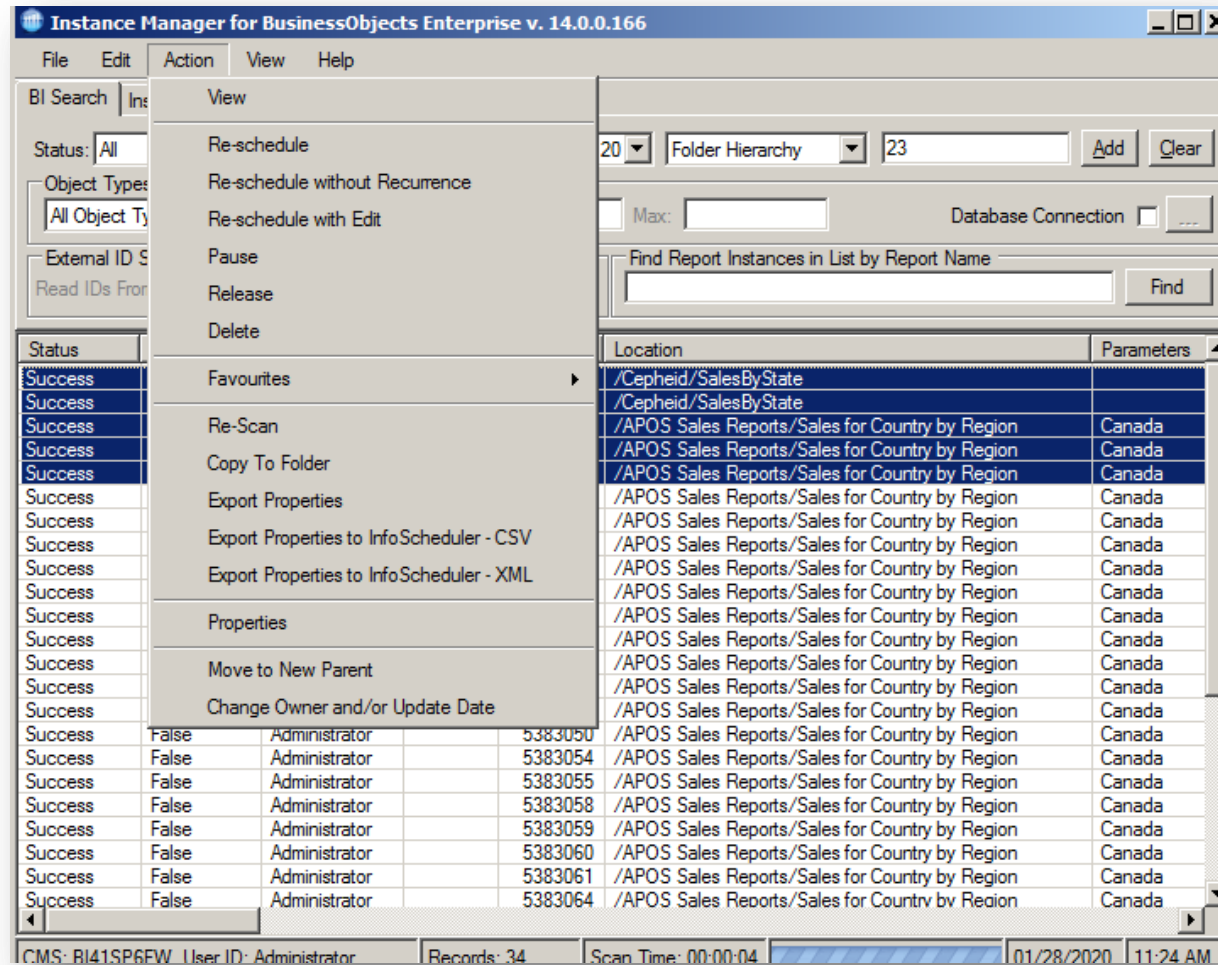
## Manage Object Properties

- Folder Security
- Formats
- Destinations
- Default Prompts
- Ownership
- etc.

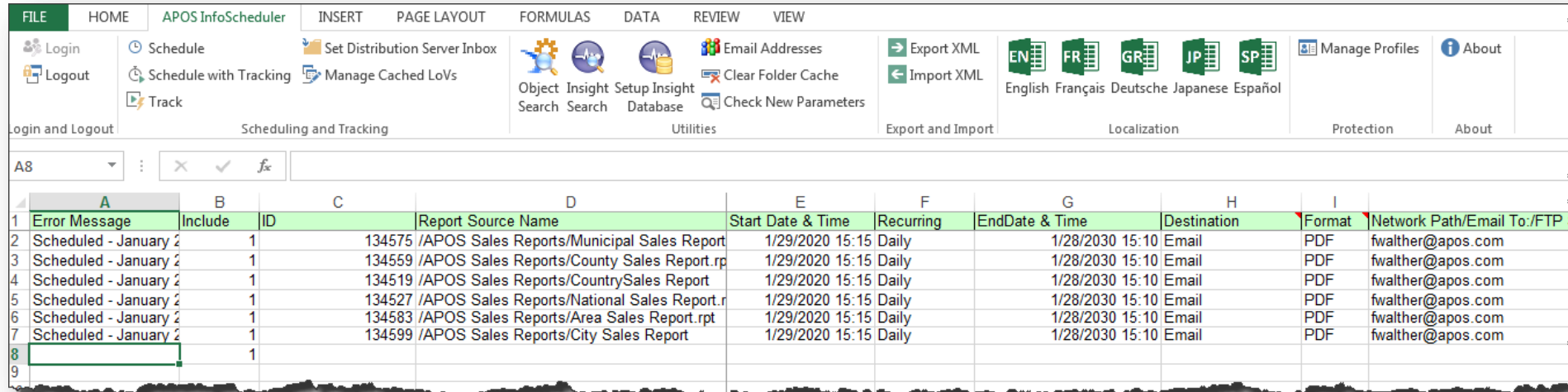


## Manage Schedule Properties

- Recurrence
- Formats
- Destinations
- Prompt Values
- Ownership
- etc.



# Methodical Administration – APOS InfoScheduler



The screenshot displays the APOS InfoScheduler application interface. At the top is a ribbon menu with tabs: FILE, HOME, APOS InfoScheduler, INSERT, PAGE LAYOUT, FORMULAS, DATA, REVIEW, and VIEW. The APOS InfoScheduler tab is active, showing various icons for functions like Login, Logout, Schedule, and Track. Below the ribbon is a toolbar with icons for Set Distribution Server Inbox, Manage Cached LoVs, Object Search, Insight Search, Setup Database, Email Addresses, Clear Folder Cache, Check New Parameters, Export XML, Import XML, Localization (English, Français, Deutsche, Japanese, Español), Manage Profiles, and About.

Below the toolbar is a data table with the following columns and data:

	A	B	C	D	E	F	G	H	I	J
	Error Message	Include	ID	Report Source Name	Start Date & Time	Recurring	EndDate & Time	Destination	Format	Network Path/Email To:/FTP
1	Scheduled - January 2	1	134575	/APOS Sales Reports/Municipal Sales Report	1/29/2020 15:15	Daily	1/28/2030 15:10	Email	PDF	fwalther@apos.com
2	Scheduled - January 2	1	134559	/APOS Sales Reports/County Sales Report.rpt	1/29/2020 15:15	Daily	1/28/2030 15:10	Email	PDF	fwalther@apos.com
3	Scheduled - January 2	1	134519	/APOS Sales Reports/CountrySales Report	1/29/2020 15:15	Daily	1/28/2030 15:10	Email	PDF	fwalther@apos.com
4	Scheduled - January 2	1	134527	/APOS Sales Reports/National Sales Report.r	1/29/2020 15:15	Daily	1/28/2030 15:10	Email	PDF	fwalther@apos.com
5	Scheduled - January 2	1	134583	/APOS Sales Reports/Area Sales Report.rpt	1/29/2020 15:15	Daily	1/28/2030 15:10	Email	PDF	fwalther@apos.com
6	Scheduled - January 2	1	134599	/APOS Sales Reports/City Sales Report	1/29/2020 15:15	Daily	1/28/2030 15:10	Email	PDF	fwalther@apos.com
7		1								
8										
9										

## Submit Schedules in Bulk

- Each row is a unique schedule
- Each column is an property of the schedule
- All schedule properties are available
- Create multiple spreadsheets to handle daily/weekly/monthly requirements

# APOS Upgrade BI S<sup>3</sup>



## SAP BusinessObjects Upgrade - Three Stage Timeline



# APOS Upgrade BI S<sup>3</sup>



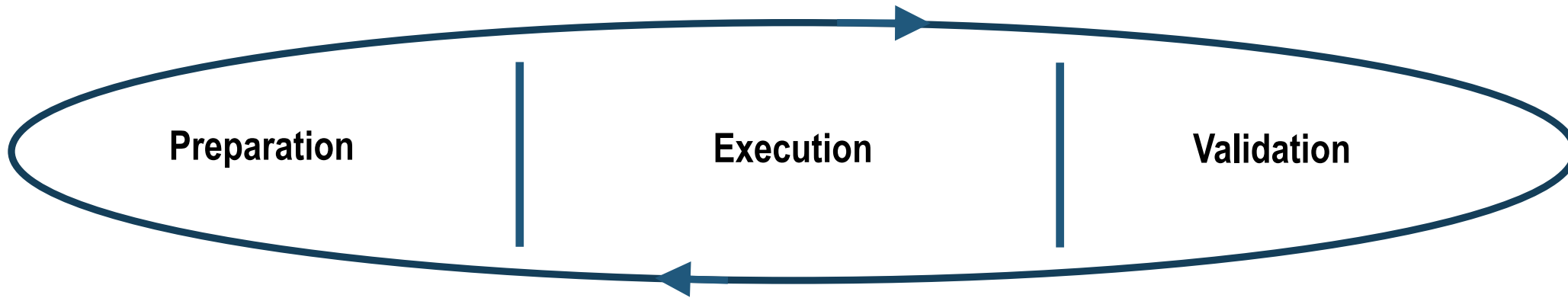
## SAP BusinessObjects Upgrade - Three Stage Timeline



# APOS Upgrade BI S<sup>3</sup>



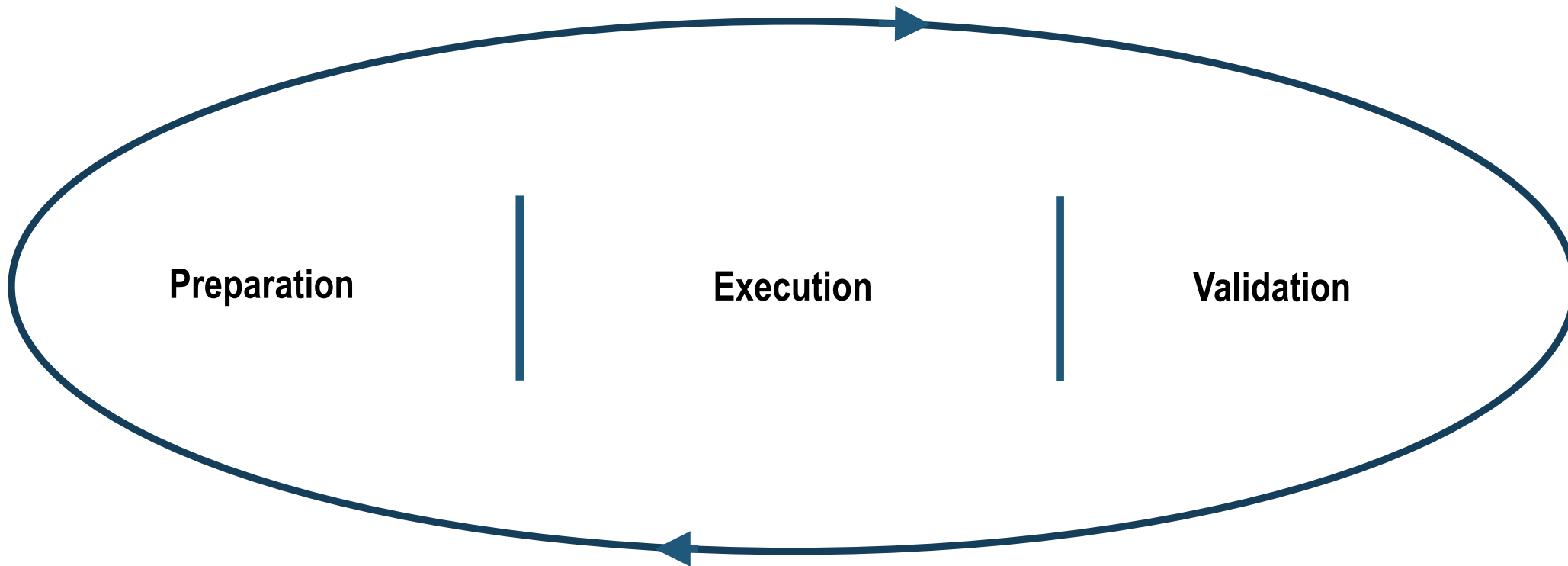
## SAP BusinessObjects Upgrade - Three Stage Timeline



# APOS Upgrade BI S<sup>3</sup>



## SAP BusinessObjects Upgrade - Three Stage Timeline



# Realize Upgrade Value & Ongoing Value





# Realize Upgrade Value & Ongoing Value



Upgrade Value

Ongoing Value



# Realize Upgrade Value



## Upgrade Value

- Preparation Value
- Execution Value
- Validation Value



# Realize Upgrade Value



## Upgrade Value

- Preparation Value
  - Audit usage and user activity
  - Optimize licensing and license usage
  - Streamline content to be migrated
- Execution Value
- Validation Value



# Realize Upgrade Value



## Upgrade Value

- Preparation Value
- Execution Value
  - Prioritize content promotion
  - Secure & protect content
  - Simplify, automate & optimize
- Validation Value



# Realize Upgrade Value



## Upgrade Value

- Preparation Value
- Execution Value
- Validation Value
  - Automate testing
    - Increase sample size
    - Reduce risk
    - Reduce resource dependencies and lengthy testing cycles
  - Prioritize reports for testing
  - System confidence
    - governance/compliance needs



# Realize Ongoing Value



## Ongoing Value

- Reduce technical debt
- Automate many administration processes
  - Enable bulk administration
  - Rapid execution
  - Reduce risk of human error
- Optimize license usage
- Secure your assets
- Automate regression testing



# Success in Upgrading SAP BI



# Success in Upgrading SAP BI



## *APOS Upgrade S<sup>3</sup> Bundle*

- Bundle of key upgrade and migration focused technologies from APOS
  - Effective automation for all stages of upgrade - Preparation, Execution, Validation
- Licensed for use during the migration process stages
  - Streamline, speed, and stabilize your upgrade
  - Upgrade-focused pricing; excellent value





# APOS Solutions for SAP Analytics Cloud



## APOS Live Data Gateway

- High-performance live data connectivity
- Virtualized, governed, self-service connectivity
- Connect to Relational databases
- Connect to OLAP data sources
- Connect to Cloud data environments
- Connect to SAP Application data

## APOS Publisher for Cloud

- Automate secure information delivery
- Deliver timely information
- Create a flexible messaging environment
- Simplify administration
- Use multiple formats & destinations
- Burst stories with multiple filters
- Burst conditionally
- Collate stories
- Personalize PowerPoint bursting



## APOS Insight for Cloud

Monitor – tracking & alerting for:

- SAC story performance
- System response measures

Validation automated comparisons across SAC versions of:

- SAC story data
- SAC story performance
- SAC story structure

Impact analysis – granular auditing of SAC story structure metadata

## APOS Semantic Layer Migration

- Capture SAP BI Universe data connection and data modelling logic
- Project-based, wizard-driven interface
- Scan your SAP BI content for relevant data connections
- Harmonize SAP BI and HANA data modelling throughout Hybrid BI
- Translate SAP BusinessObjects modelling to SAP HANA Calculation Views
- Translate SAP BusinessObjects modelling to a unified semantic layer



# APOS Solutions for SAP BusinessObjects



## APOS Insight

### BI System Auditing

- System Inventory
- Security Analysis
- System Usage Analysis
- Report Impact Analysis

### BI Report Testing

- Automated Report Testing
- Regression Testing
- Validation of Report Data
- Report Performance Testing

### BI System Monitoring

- Advanced System Monitoring
- Operating Environment Monitoring
- Database Monitoring
- Process Monitoring

### BI Query Surveillance

- Real-time BI Query Monitoring
- Query Performance Alerting & Auditing
- Query Intervention; Remote Cancelling
- Sensitive Data Audit



## APOS Administrator

### Object Management

- Bulk Security Management
- Bulk Settings Management
- System Objects Promotion
- Connections Maintenance

### Schedule Management

- High-volume schedule management
- Multiple schedule properties editing
- Grid scheduling interface
- Repeatable scheduling templates

### Instance Management

- Manage entire instance inventory
- Granular instance search
- Stop, pause, release, reschedule
- Rapid recovery to failed schedules

### Web Intelligence Migration

- Bulk conversion of Universes from UNV to UNX
- High-Volume Repoint Web Intelligence reports
- Success validation
- Controlled, project-based workflow

## APOS Storage Center



- System Backup
- Content Archiving
- Content Versioning
- Selective Restoration
- Automated System Clean Up

## APOS Publisher

- Systematic Content Delivery
- Advanced Document Bursting
- Enhanced Content Distribution
- Security and Encryption
- Statement Generation



# STAY CONNECTED



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Join easily by searching "SAP Analytics Cloud (SAC)" & Request to Join on LinkedIn!

# QUESTIONS?

**Please enter your questions in the Q&A panel.**



# Thank You!

## Get in Touch

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