Simplify Security Compliance and Systems Administration with Db2 Web Query

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POWERUp18 Session ID:

Agenda Key:

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Agenda

- IBM i “Services”
- What is Db2 Web Query for i
- Combining the two
  - Sample reports/dashboards for the Systems Administrator
  - PowerSC Compliance Assessment and Reporting Solution

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The Reports Leverage IBM i Services

- What are IBM i Services?
  - SQL Based interfaces to common CL or API type commands
  - Delivered as SQL Views, User Defined Functions or Stored Procedures
    - All of which can be made readily available for use in DB2 Web Query reports
    - SQL Script examples provided in iNav and ACS Run SQL Scripts
  - Easier to get system information via SQL Based visualization tools like….DB2 Web Query
- Services are there today
  - Depending on TR and IBM i OS level
- DB2 Web Query can be leveraged to build reports, charts/graphs, dashboards or populate spreadsheets over the data returned from the various services

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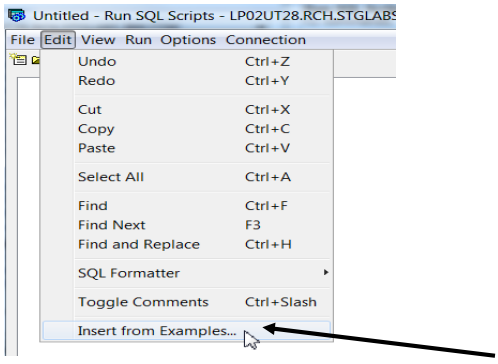
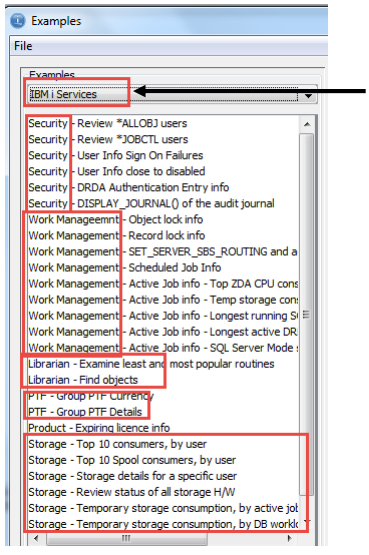
SQL Examples over IBM i Services are included in Access Client Solutions

- Using Run SQL Scripts
- Insert from Examples…





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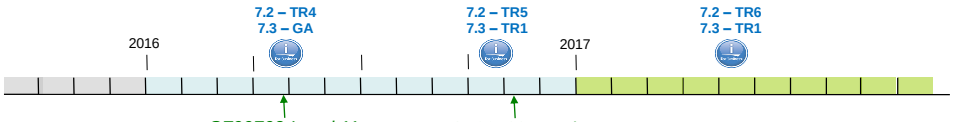
For More Information on Services and Delivery Dates



Enhancements in TR4
- Inlined UDTFs
- Trigger (re)deployment
- More IBM i Services
- New DB2 built-in Global Variables
- Enhanced SQL Scalar functions
- Evaluation option for DB2 SMP & DB2 Multisystem

Enhancements in 7.3:
- Temporal Tables
- Generated columns for auditing
- New OLAP built-ins
- Raised architecture limits
- New support for partitioned tables
- More IBM i Services
- And much more

Enhancements in TR5 & TR1
- **JSON_TABLE()**
- **INCLUDE for SQL Routines**
- **Visual Explain in ACS**
- **Inlined Scalar Functions**
- **More IBM i Services**
- **New DB2 for i Services**
- **And much more…**

www.ibm.com/developerworks/ibmi/techupdates/db2

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Monitoring System Utilization Metrics: Sample Reports and Dashboards

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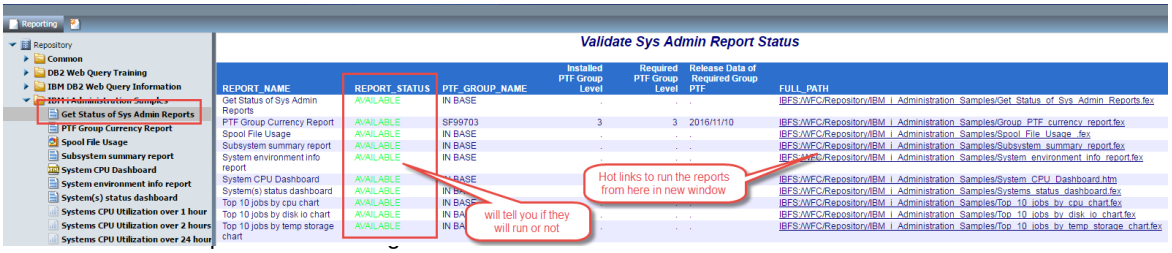
Sample System Admin Reports

- Once installed, Run the “Get Status of Sys Admin Reports” by double clicking or right click and “RUN”



- Run the report if desired by clicking on the links in the Full Path column

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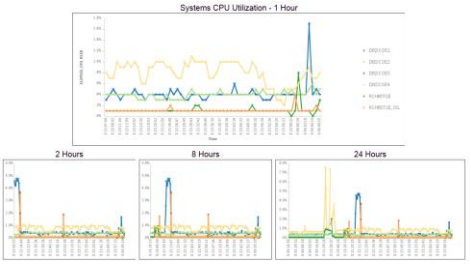
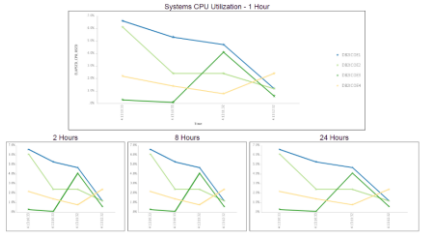
CPU Utilization Dashboard

- Supports one or multiple LPARs/Servers
  - System CPU Utilization
  - Can be easily extended to other system metrics
- Auto Refresh Enabled
  - Remote data collection requires remote system connections to be set up (RDB directory entries and SVRAUTE entries)
- Continues to collect and store historical data using a Stored Procedure once the report is initially run
  - Stops collecting if ‘no one is watching’ for an extended period of time





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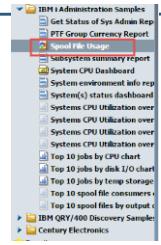
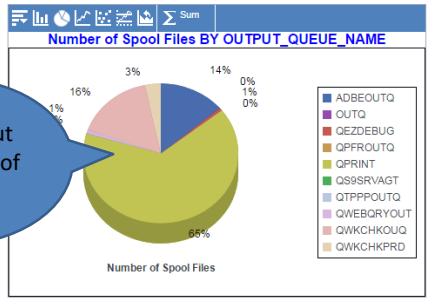
Monitoring Output Queues and Spool Files

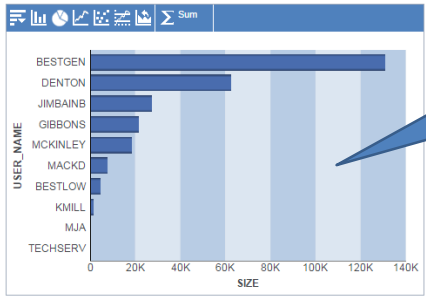
- Are you cleaning up your spool files?



Output Queue Top 10 at 13.36.43 on May 4, 2017

Top 10 output queues by # of spool files





Top 10 users by # of spool files

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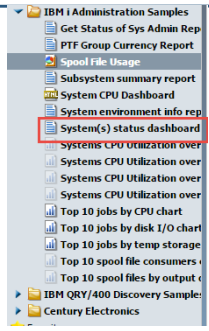
System Status

- Various metrics across all LPARs/Servers
  - Not set up as auto refresh but could be easily enough
  - Traffic lighting to highlight potential problems
    - You could easily change the report to include your own thresholds to monitor



System(s) Status

Host Name	Total Jobs in System	Active Jobs in System	Interactive Jobs in System	Active Threads in System	Elapsed Time	Elapsed CPU Used	Current CPU Capacity	Average CPU Utilization	Minimum CPU Utilization	Maximum CPU Utilization	System ASP Storage	Total Auxiliary Storage	System ASP Used	Current Temporary Storage	Maximum Temporary Storage
DB2ICOE1	398	263	.00	1188	1	1.30	2.00	.18	.00	99.95	1488922	1488922	61.04	7529	7585
DB2ICOE2	6441	244	.00	1112	1	.20	2.00	.21	.00	99.76	954437	954437	50.21	7778	7846
DB2ICOE3	8934	282	.00	1218	1	.70	4.00	.11	.00	.28	6242936	6242936	27.83	8215	8260
DB2ICOE4	4869	242	.00	925	1	2.80	2.00	.11	.00	.14	6242936	6242936	15.73	6976	7833

Run on May 4, 2017 at 13.46.47

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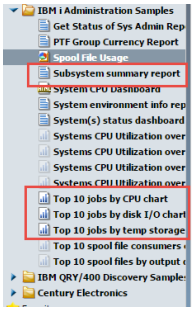
Subsystem Status and Top 10 Jobs by CPU, I/O, and Temp Storage

- Subsystem Summary "Active" Report
  - Sort, filter, add a comment and email, etc.



Summary info by subsystem

12 of 12 records, Page 1 of 1

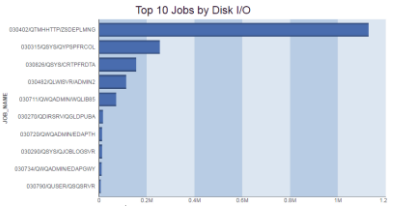
Subsystem Summary

SUBSYSTEM	NUMBER_OF_JOBS	TOTAL_CPU_TIME	TOTAL_TEMP_STORAGE	TOTAL_IO
QWEBQRY21	36	718523	1965	742332
QHTTPSVR	9	503585	1393	109160
Q1ABRMNET	3	149060	110	3647
QSYSWRK	113	113603	1098	90055
QUSRWRK	35	17479	426	30620
QSERVER	21	5940	115	169933
QINTER	2	198	10	958
QCMN	8	37	17	403
QCTL	1	11	2	679
QSPL	1	8	2	121
QBATCH	1	7	2	130
ZENDSVR6	1	5	2	90

Top xx Jobs by:
- CPU time
- I/O count
- Temp. Storage

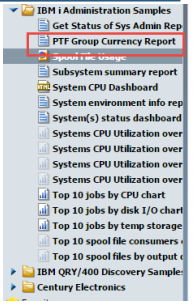
Top 10 Jobs by CPU Time

JOB_NAME	CPU_TIME
030402/QTMHHTTP/ZSDEPLMNG	2982474
030503/QTMHHTTP/ZSDAEMON	1513626
030482/QLWISVR/ADMIN2	445935
030711/QWQADMIN/WQLIB85	306111
030464/QBRMS/Q1ACPDST	187425
030481/QLWISVR/ADMIN5	144754
030637/QSECOFR/QINAVMNSRV	117222
030703/QWQADMIN/QP0ZSPWP	57900
030315/QSYS/QYPSPFRCOL	49953
030401/QTMHHTTP/ZSJOBQMNG	46556



How Up to Date are your Group PTFs ?

- Checks installed level against available level
- Available levels obtained from the web
  - Note: your system must have a connection to the web



53 of 53 records, Page 1 of 1

Installed Product Information

PRODUCT_ID	LICENSE_TERM	RELEASE_LEVEL	FEATURE_ID	PRODUCT_TEXT
5722JP1	V5R3M0	V5R3M0	5050	IBM Infoprint Server for
			5101	IBM Infoprint Server for
5733WQX	V2R1M0	V2R1M0	5050	IBM DB2 Web Query for
			5101	Web Query Express Ed
			5102	Web Query Standard Ed
			5103	Web Query Option 3
			5104	Web Query Developer (
			5105	Web Query Developer I
			5106	Web Query Runtime En
			5107	Web Query JD Edwards
			5108	DataMigrator
			5109	DataMigrator
			5110	Web Query Option 10
			5111	Web Query Option 11
			5112	Web Query Option 12
			5113	Web Query Option 13
			5114	Web Query Option 14
			5115	Web Query Option 15
5761CM1	V6R1M0	V6R1M0	5050	Communications Utilitie
5761DP4	V6R1M0	V6R1M0	5050	DataPropagator for iS/C
5770AF1	V7R2M0	V7R2M0	5050	IBM AFP Utilities
5770BR1	V7R2M0	V7R2M0	5050	Backup Recovery and I
			5101	BRMS-Network Feature
			5102	BRMS-Advanced Funct
5770DE1	V7R1M0	V7R1M0	5050	DB2 Extenders
5770HAS	V7R2M0	V7R2M0	5051	PowerHA for i Enterpri
			5052	PowerHA for i Standard
			5053	PowerHA for i Express
			5054	Reserved
			5055	Reserved
5770JS1	V7R2M0	V7R2M0	5050	IBM Advanced Job Sch
5770PT1	V7R2M0	V7R2M0	5050	IBM Performance Tools

PTF Currency Report

Status	PTF Group ID	PTF Name	Installed Level	Level Available	Date of last IBM Update
INSTALLED LEVEL IS CURRENT	SF99364	710 WebSphere App Server V6.1	9	9	09/09/2013
	SF99480	720 WebSphere App Server V8.0	6	6	02/01/2016
	SF99637	710 DB2 Web Query for IBM i V1.1.2	9	9	12/12/2013
	SF99747	720 DB2 Web Query for i V2.1.0	14	14	03/30/2016
	SF99766	720 Print PTFs	3	3	01/07/2015
UPDATE AVAILABLE	SF99145	710 Performance Tools	9	11	05/17/2016
	SF99363	710 WebSphere App Server V7.0	16	19	04/11/2016
	SF99366	710 Print PTFs	8	12	01/07/2015
	SF99368	710 IBM HTTP Server for i	37	42	07/01/2016
	SF99369	710 IBM i integration with BladeCenter and System x	13	16	12/18/2014
	SF99380	710 WebSphere App Server V8.0	11	15	02/01/2016
	SF99381	710 WebSphere App Server V8.5	10	15	08/14/2016
	SF99481	720 WebSphere App Server V8.5	8	9	08/14/2016
	SF99647	710 DB2 Web Query for i V2.1.0	13	14	03/30/2016
	SF99658	720 DB2 Web Query for i V2.1.1	2	3	03/30/2016
	SF99701	710 DB2 for IBM i	38	40	04/08/2016
	SF99702	720 DB2 for IBM i	12	13	07/14/2016
	SF99710	Current Cumulative PTF Media Documentation	14283	16120	05/19/2016
	SF99713	720 IBM HTTP Server for i	15	16	07/01/2016
	SF99714	720 Performance Tools	2	4	05/17/2016
	SF99716	720 Java	9	10	06/21/2016
	SF99717	720 Technology Refresh	3	4	05/19/2016
	SF99718	720 Group Security	29	36	08/09/2016
	SF99719	720 Group Hiper	60	71	08/23/2016
	SF99720	Current Cumulative PTF Media Documentation	15311	16127	05/20/2016
	SF99767	720 TCP/IP PTF	2	3	06/25/2016
	SF99775	720 Hardware and Related PTFs	14	17	04/25/2016
	SF99776	720 High Availability for IBM i	3	5	07/22/2016

28 August, 2016 at 15.29.31

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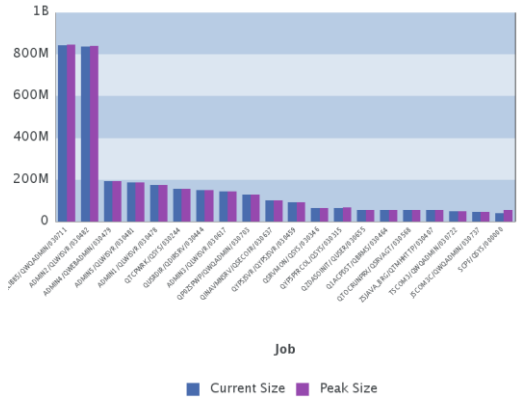
Storage Utilization Reports

- Information can be aggregated across ASPs to get totals
  - Rank by total storage (top xx users)
  - Temp Storage by JOB
  - Could start keeping history to track trends

Storage by User - Top 20

AUTHORIZATION_NAME	ASPGRP *SYSBAS
QDFTOWN	329142508
MCKINLEY	301352476
JIMBAINB	133879332
QSECOFR	103769384
GKJAMES	74243776
QCOLSRV	39552204
DENTON	38064504
QSYS	36627036
DCRANK	36313952
BESTGEN	31698408
KMILL	26752604
MACKD	13822312
GIBBONS	10240576
HBEDOYA	8971788
MCAIN	6569752
QWQADMIN	3701344
QSPL	3521628
QLWISVR	1531876
QPGMR	830060
QTMHHTTP	707820

18.37.59 on August 26, 2016



What is the process?

- Prepare the service for DB2 Web Query
  - Services shipped as stored procedures (SP) need a simple wrapper SP to turn the output into a result set
  - Services shipped as User Defined Table Function (UDTF) simply need an SQL VIEW over the function
  - Services shipped as a VIEW (which most are) – move onto the next step!

```
CREATE OR REPLACE VIEW syssrvcs.get_active_job_info(
                                ORDINAL_POSITION ,
    JOB_NAME ,
                               INTERNAL_JOB_ID ,
    SUBSYSTEM  ,
    SUBSYSTEM_LIBRARY_NAME  ,
    AUTHORIZATION_NAME  ,
    JOB_TYPE  ,
    FUNCTION_TYPE  ,
    "FUNCTION"  ,
    JOB_STATUS  ,
    MEMORY_POOL  ,
    RUN_PRIORITY  ,
    THREAD_COUNT  ,
    TEMPORARY_STORAGE  ,
    CPU_TIME  ,
    TOTAL_DISK_IO_COUNT  ,
    ELAPSED_INTERACTION_COUNT  ,
    ELAPSED_TOTAL_RESPONSE_TIME  ,
    ELAPSED_TOTAL_DISK_IO_COUNT  ,
    ELAPSED_ASYNC_DISK_IO_COUNT  ,
    ELAPSED_SYNC_DISK_IO_COUNT  ,
    ELAPSED_CPU_PERCENTAGE  ,
    ELAPSED_CPU_TIME  ,
    ELAPSED_PAGE_FAULT_COUNT  ,
    JOB_END_REASON  ,
    SERVER_TYPE  ,
    ELAPSED_TIME

    )
    AS
    SELECT * FROM TABLE(qsys2.active_job_info()) x
WHERE subsystem is not null;


LABEL ON TABLE SYSSRVCS.GET_ACTIVE_JOB_INFO
    IS 'View to get Active Job Info' ;
```

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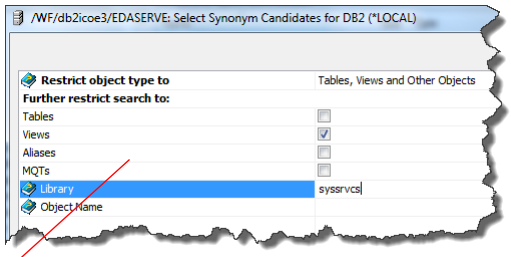
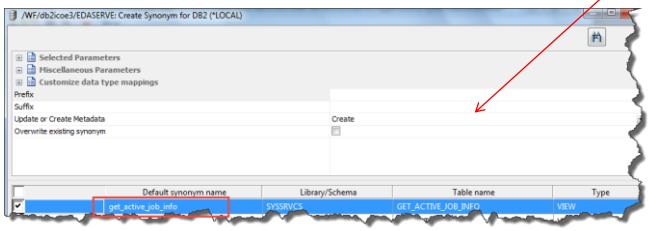
What is the process?

- Create (one time) a DB2 Web Query Synonym (meta data) over the prepared service
  - View or SP
    - A two minute (if that) exercise





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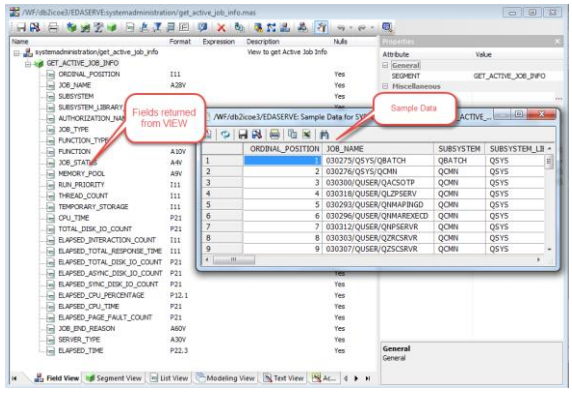
What is the process?

- The Synonym is a representation of the underlying file (or view in this case). It does not contain data, but is a layer in between report authoring tool and the data in the tables/files to simplify report authoring
- You could:
  - Add additional calculated fields
  - Change field names/data types
  - Join this file to another in the same synonym
  - Add date attributes (e.g., Day of week)
- "Sample Data" allows you to see the results



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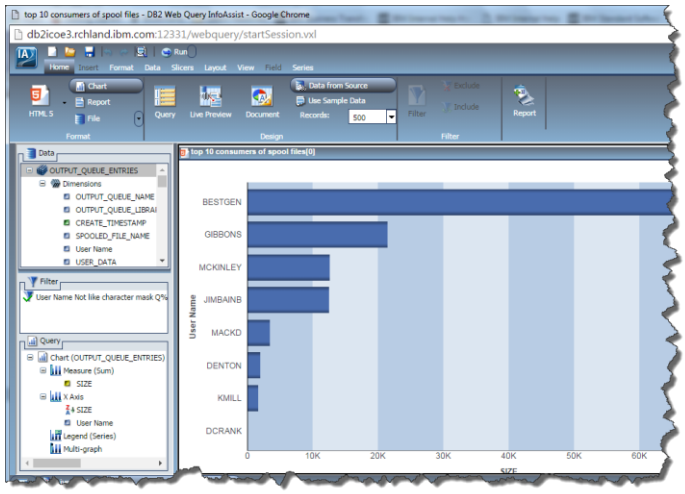
Once the Synonym is in Place, Start Building your Report

- Start building your report over the new Synonym
  - Standard report or chart, or other visualizations
  - Output could be HTML, Excel, Active Reports (good for mobile devices), PDF, PowerPoint
  - Could schedule the reports to run in the background and email or store in IFS
  - Add desired reports to dashboard
    - Could even set up a timed refresh for an interactive dashboard



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What about History and Trending?

- Today, most of the reports are point in time
  - With the exception of the CPU Utilization Dashboard, which does store historical data as it goes
- If you're at 7.3, it would be very easy to set up a timed job to collect data via IBM i Services and dump the data into a temporal table

Or….

- No matter what release you're at, use DB2 Web Query's DataMigrator to automate that process of collecting and loading a history table

- Reports/dashboards could be updated then to include trending information based on timestamps in collections
- **If you'd like some help with this, let us know: qu2@us.ibm.com**

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How Do I Acquire these Sample Reports?

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Db2 Web Query Installation and Setup (in 15 minutes)

With the NEW **EZ-Install Package**

Request by sending email to QU2@us.ibm.com w/ serial number of system you plan to install on

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What is the EZ-Install Package

- A single downloadable image that you can request that includes:
  - Db2 Web Query Version 2.2
    - Express and Standard Edition
    - Data Migrator and Developer Workbench
  - Sample IBM i System Administration Reports
  - Db2 Web Query Auditing/Monitoring Reports
  - Query/400 Discovery Tool
  - All of the Tutorial Reports already completed
    - (but this would be cheating if you didn't do the tutorials yourself)

- Installation Process Walks You through the Installation
    - Add a user you designate as a Db2 Web Query Administrator (don't use QSECOFR please)
    - Restore of Db2 Web Query Sample Database and Meta data (needed for self guided tutorials)
    - Restore of Audit and Sample IBM i System Admin reports
    - Discovery Tool and completed tutorial reports are included but enabled optionally

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Security Compliance Monitoring

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Centralized reporting of IBM i System and Security Components

Compliance Assessment and Reporting Tool – Enterprise Edition

- An automated collection, analysis, and reporting tool on over 1000 system and security related risks, information, statistics and demographics. All in one location and easy to use!

- **Covers:**
  - Password management
  - Profile administration
  - Special authorities
  - Group inheritance
  - Network configuration
  - NetServer attributes
  - Operational security
  - PTF currency
  - Event monitoring
  - Customer define items
  - Security risks and more
- Daily compliance dashboard reports at LPAR, system or enterprise level

- Enables compliance officer to demonstrate adherence to pre-defined or customer-defined security polices.
- System and Security reporting made easy!

http://ibm.biz/IBMiSecurity or contact Terry Ford at TAFORD@us.ibm.com

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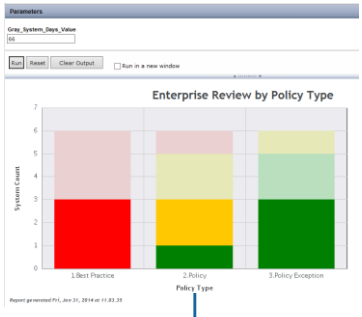
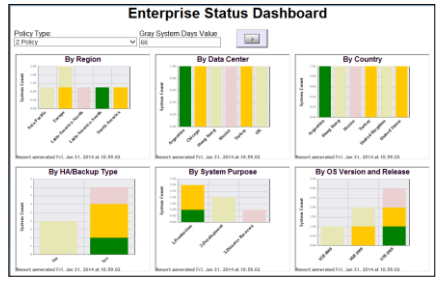
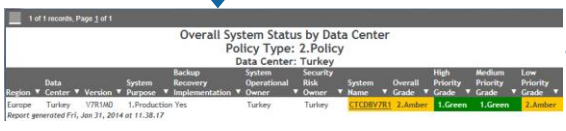
Compliance Assessment and Reporting Tool

"I just want to arrive in the morning, get a cup of coffee, and have a view of what systems are in compliance and which are not."







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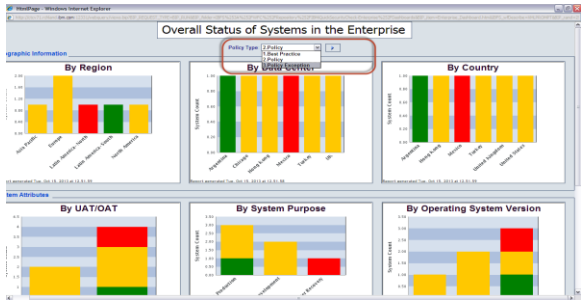
High Level Dashboards

- Toggle through Different Views
  - IBM's recommended best practice
  - Your Policy
    - Might be different than the IBM recommendations
  - Policy Exceptions
    - Exceptions might be something that is a defined temporary exception or a system that might have different policies
    - Examples might be a system that is being brought up, or an H/A or DEV system
  - Traffic Lighting for easy visualizations of where you are in or out of compliance
    - Drill downs to view details
- Views by Region, Country, OS Version, System purpose (prod, dev, ha/dr), etc.



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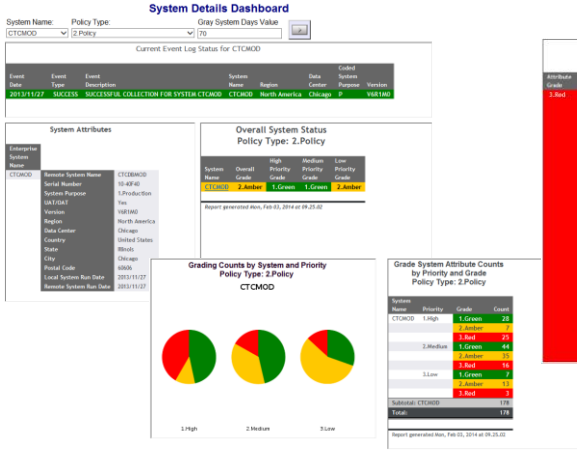
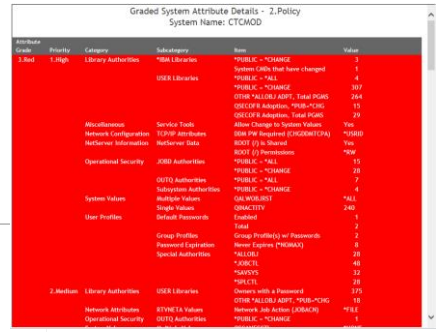
Compliance Assessment and Reporting Tool

By System Dashboard

- Key system and data collection information
- Status of last collection attempt (Success or Fail)
- Key system attributes – VRM, Location, etc.
- Overall and detailed system grading based upon last successful collection





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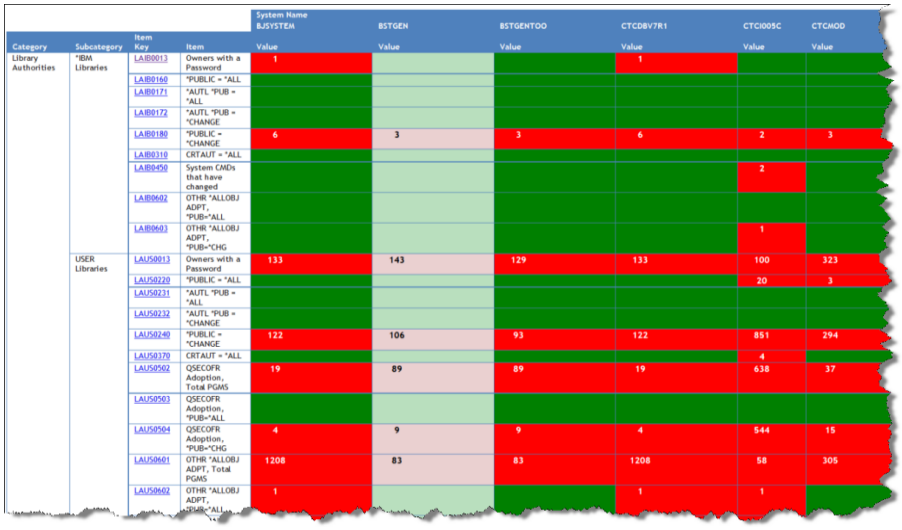
Compliance Assessment and Reporting Tool

Cross System Analysis

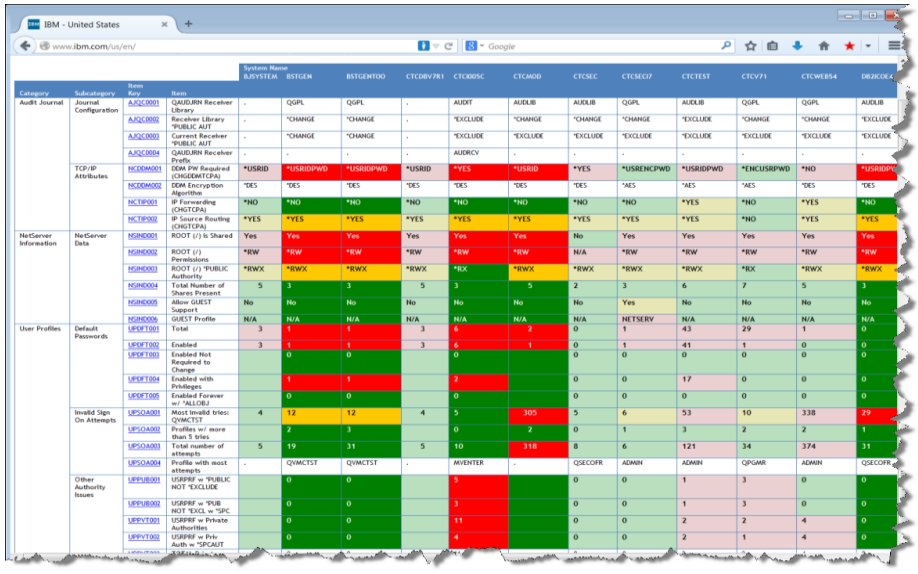
Horizontal or vertical presentation of risk indicators across LPARs



Category	Subcategory	Item Key	Item	System Name BJSYSTEM Value	BSTGEN Value	BSTGENTOO Value	CTCDBV7R1 Value	CTCI005C Value	CTCMOD Value
Library Authorities	*IBM Libraries	LAIB0013	Owners with a Password	1			1		
		LAIB0160	*PUBLIC = *ALL						
		LAIB0171	*AUTL *PUB = *ALL						
		LAIB0172	*AUTL *PUB = *CHANGE						
		LAIB0180	*PUBLIC = *CHANGE	6	3	3	6	2	3
		LAIB0310	CRTAUT = *ALL						
		LAIB0450	System CMDs that have changed					2	
		LAIB0602	OTHR *ALLOBJ ADPT, *PUB=*ALL						
		LAIB0603	OTHR *ALLOBJ ADPT, *PUB=*CHG					1	
	USER Libraries	LAU50013	Owners with a Password	133	143	129	133	100	323
		LAU50220	*PUBLIC = *ALL					20	3
		LAU50231	*AUTL *PUB = *ALL						
		LAU50232	*AUTL *PUB = *CHANGE						
		LAU50240	*PUBLIC = *CHANGE	122	106	93	122	851	294
		LAU50370	CRTAUT = *ALL					4	
		LAU50502	QSECOFR Adoption, Total PGMS	19	89	89	19	638	37
		LAU50503	QSECOFR Adoption, *PUB=*ALL						
		LAU50504	QSECOFR Adoption, *PUB=*CHG	4	9	9	4	544	15
		LAU50601	OTHR *ALLOBJ ADPT, Total PGMS	1208	83	83	1208	58	305
		LAU50602	OTHR *ALLOBJ ADPT, *PUB=*ALL	1			1	1	

Compliance Assessment and Reporting Tool

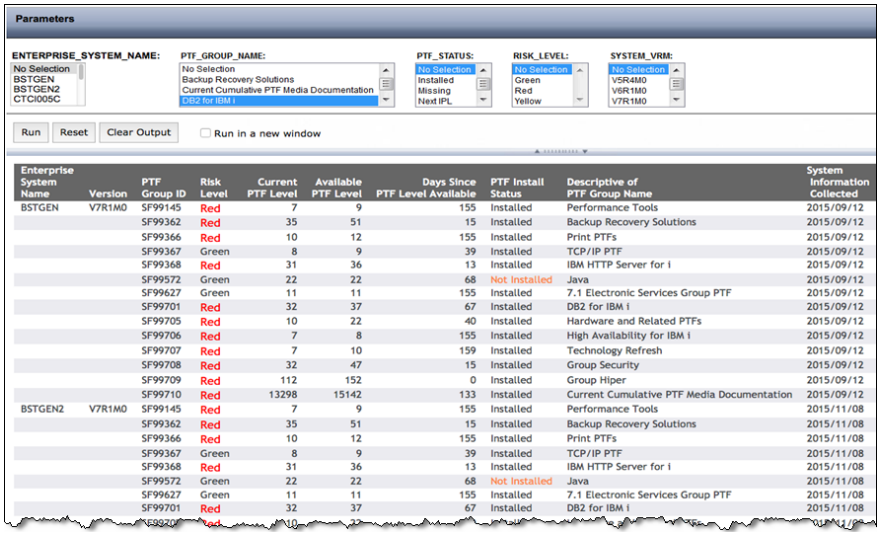
Monitoring Vulnerabilities Across Systems



Category	Subcategory	Item Key	Item	System Name BJSYSTEM	BSTGEN	BSTGENTOO	CTCDBV7R1	CTCI005C	CTCMOD	CTCSEC	CTCSECI7	CTCTEST	CTCV71	CTCWEB54	DB2ICOE4
Audit Journal	Journal Configuration	AJQC0001	QAUDJRN Receiver Library	.	QGPL	QGPL	.	AUDIT	AUDLIB	AUDLIB	QGPL	AUDLIB	QGPL	QGPL	AUDLIB
		AJQC0002	Receiver Library *PUBLIC AUT	.	*CHANGE	*CHANGE	.	*EXCLUDE	*CHANGE	*CHANGE	*CHANGE	*EXCLUDE	*CHANGE	*CHANGE	*EXCLUDE
		AJQC0003	Current Receiver *PUBLIC AUT	.	*CHANGE	*CHANGE	.	*EXCLUDE	*EXCLUDE	*EXCLUDE	*EXCLUDE	*EXCLUDE	*EXCLUDE	*EXCLUDE	*EXCLUDE
		AJQC0004	QAUDJRN Receiver Prefix	.	.	.	.	AUDRCV	.	.	.	.	.	.	.
	TCP/IP Attributes	NCDDM001	DDM PW Required (CHGDDMTCPA)	*USRID	*USRIDPWD	*USRIDPWD	*USRID	*YES	*USRID	*YES	*USRENCPWD	*USRIDPWD	*ENCUSRPWD	*NO	*USRIDPWD
		NCDDM002	DDM Encryption Algorithm	*DES	*DES	*DES	*DES	*DES	*DES	*DES	*AES	*AES	*AES	*DES	*DES
		NCTIP001	IP Forwarding (CHGTCPA)	*NO	*NO	*NO	*NO	*NO	*NO	*NO	*NO	*YES	*NO	*YES	*NO
		NCTIP002	IP Source Routing (CHGTCPA)	*YES	*YES	*YES	*YES	*YES	*YES	*YES	*YES	*YES	*NO	*YES	*YES
	NetServer Data	NSHD001	ROOT (/) is Shared	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
		NSHD002	ROOT (/) Permissions	*RW	*RW	*RW	*RW	*RW	*RW	N/A	*RW	*RW	*RW	*RW	*RW
		NSHD003	ROOT (/) *PUBLIC Authority	*RWX	*RWX	*RWX	*RWX	*RX	*RWX	*RWX	*RWX	*RWX	*RX	*RWX	*RWX
		NSHD004	Total Number of Shares Present	5	3	3	5	3	5	2	3	6	7	5	3
		NSHD005	Allow GUEST Support	No	No	No	No	No	No	No	Yes	No	No	No	No
		NSHD006	GUEST Profile	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NETSERV	N/A	N/A	N/A	N/A
User Profiles	Default Passwords	UPDFT001	Total	3	1	1	3	6	2	0	1	43	29	1	0
		UPDFT002	Enabled	3	1	1	3	6	1	0	1	41	1	0	0
		UPDFT003	Enabled Not Required to Change		0	0		0		0	0	0	0	0	0
		UPDFT004	Enabled with Privileges		1	1		2		0	0	17	0	0	0
		UPDFT005	Enabled Forever w/ *ALLOBJ		0	0		0		0	0	0	0	0	0
	Invalid Sign On Attempts	UPSOA001	Most Invalid tries: QVMCTST	4	12	12	4	5	305	5	6	53	10	338	29
		UPSOA002	Profiles w/ more than 5 tries		2	3		0	2	0	1	3	2	2	1
		UPSOA003	Total number of attempts	5	19	31	5	10	318	8	6	121	34	374	31
		UPSOA004	Profile with most attempts	.	QVMCTST	QVMCTST	.	MVENTER	.	QSECOFR	ADMIN	ADMIN	QPGMR	ADMIN	QSECOFR
	Other Authority Issues	UPPUB001	USRPRF w *PUBLIC NOT *EXCLUDE		0	0		5		0	0	1	3	0	0
		UPPUB002	USRPRF w *PUB NOT *EXCL w *SPC		0	0		3		0	0	1	3	0	0
		UPPVT001	USRPRF w Private Authorities		0	0		11		0	0	2	2	4	0
		UPPVT002	USRPRF w Priv Auth = *SPCAUT		0	0		4		0	0	2	1	4	0

Cross System Analysis

PTF Inventory…



Enterprise System Name	Version	PTF Group ID	Risk Level	Current PTF Level	Available PTF Level	Days Since PTF Level Available	PTF Install Status	Descriptive of PTF Group Name	System Information Collected
BSTGEN	V7R1M0	SF99145	Red	7	9	155	Installed	Performance Tools	2015/09/12
		SF99362	Red	35	51	15	Installed	Backup Recovery Solutions	2015/09/12
		SF99366	Red	10	12	155	Installed	Print PTFs	2015/09/12
		SF99367	Green	8	9	39	Installed	TCP/IP PTF	2015/09/12
		SF99368	Red	31	36	13	Installed	IBM HTTP Server for i	2015/09/12
		SF99572	Green	22	22	68	Not Installed	Java	2015/09/12
		SF99627	Green	11	11	155	Installed	7.1 Electronic Services Group PTF	2015/09/12
		SF99701	Red	32	37	67	Installed	DB2 for IBM i	2015/09/12
		SF99705	Red	10	22	40	Installed	Hardware and Related PTFs	2015/09/12
		SF99706	Red	7	8	155	Installed	High Availability for IBM i	2015/09/12
		SF99707	Red	7	10	159	Installed	Technology Refresh	2015/09/12
		SF99708	Red	32	47	15	Installed	Group Security	2015/09/12
		SF99709	Red	112	152	0	Installed	Group Hiper	2015/09/12
		SF99710	Red	13298	15142	133	Installed	Current Cumulative PTF Media Documentation	2015/09/12
BSTGEN2	V7R1M0	SF99145	Red	7	9	155	Installed	Performance Tools	2015/11/08
		SF99362	Red	35	51	15	Installed	Backup Recovery Solutions	2015/11/08
		SF99366	Red	10	12	155	Installed	Print PTFs	2015/11/08
		SF99367	Green	8	9	39	Installed	TCP/IP PTF	2015/11/08
		SF99368	Red	31	36	13	Installed	IBM HTTP Server for i	2015/11/08
		SF99572	Green	22	22	68	Not Installed	Java	2015/11/08
		SF99627	Green	11	11	155	Installed	7.1 Electronic Services Group PTF	2015/11/08
		SF99701	Red	32	37	67	Installed	DB2 for IBM i	2015/11/08

Compliance Assessment and Reporting Tool

Profile Analysis

Horizontal or vertical presentation of user profiles across LPARs

Enterprise System Name	User Profile	Is IBM Profile	User Class	Object Authority	Is A Group Profile	Status	Limited Capability	Password Expired	Password Is *NONE	Password Expiration Interval	Has Special Authorities	ALL SPCAUT Origin	AUDIT SPCAUT Origin	IOSYSCFG SPCAUT Origin	JOBCTL SPCAUT Origin	SAVSYS SPCAUT Origin
CTCI005C	AAAA	*NO	*USER	*EXCLUDE			*NO	*NO	*NO	*SYSVAL	*YES	*GROUP				
	AASLAND	*NO	*SECOFR	*EXCLUDE			*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	BADINGB	*NO	*SECOFR	*EXCLUDE			*NO		*NO	*SYSVAL	*YES	*PRFGRP	*PRFGRP	*PRFGRP	*PRFGRP	*PRFGRP
	BESTGEN	*NO	*SECOFR	*EXCLUDE			*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	BRUCE	*NO	*USER	*EXCLUDE			*NO			*SYSVAL	*NO					
	BRUCE1	*NO	*USER	*EXCLUDE			*NO		*NO	*SYSVAL	*NO					
	DB2XML	*NO	*USER	*EXCLUDE			*NO		*YES	*SYSVAL	*NO					
	DIEPHUIS	*NO	*SECOFR	*EXCLUDE			*NO		*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	FCEMRADM	*YES	*USER	*EXCLUDE			*NO		*YES	*SYSVAL	*NO					
	FCEMRGRP	*YES	*USER	*EXCLUDE			*NO		*YES	*SYSVAL	*NO					
	FCEMRUSR	*YES	*SECOFR	*EXCLUDE			*NO		*YES	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	GIBBONS	*NO	*SECOFR	*EXCLUDE			*NO		*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	GIBBONSJ	*NO	*SECOFR	*EXCLUDE			*NO		*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	GINTOWT	*NO	*SECOFR	*EXCLUDE			*NO		*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	GKJAMES	*NO	*SECOFR	*EXCLUDE			*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	HILLD	*NO	*SECOFR	*EXCLUDE			*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	MDUNTITLED	*NO	*USER	*EXCLUDE			*NO	*NO	*YES	*NOMAX	*YES				*PROFILE	*PROFILE
	MINETTE	*NO	*SECOFR	*EXCLUDE			*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	MKNEYERS	*NO	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	MRADMIN	*NO	*USER	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*YES	*NOMAX	*YES				*PROFILE	*PROFILE
	MRSCHEDULE	*NO	*USER	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*YES	*NOMAX	*YES				*PROFILE	*PROFILE
	MSHADE	*NO	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	MVENTER	*NO	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE
	QANZAGENT	*YES	*SYSOPR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*YES	*SYSVAL	*NO					
	QAUTPROF	*YES	*USER	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*YES	*SYSVAL	*NO					
	QBRMS	*YES	*USER	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*YES	*NOMAX	*NO					
	QCLUMGT	*YES	*USER	*EXCLUDE	*NO	*DISABLED	*NO	*NO	*YES	*SYSVAL	*NO					

Compliance Assessment and Reporting Tool

Profile Analysis

Aggregation of user profiles across LPARs

User Profile	Total Systems With Profile	Systems With Enabled Profiles	Systems With All Object Special Authority	Systems With Audit Special Authority	Systems With I/O System Special Authority	Systems With Job Control Special Authority	Systems With Save System Special Authority	Systems With Security Administrator Special Authority	Systems With Spool Control Special Authority	Profile Description
AAAA	1	1	0	0	0	0	0	0	0	
AASLAND	3	3	3	3	3	3	3	3	3	Christian Aasland 612-397-2947, XLU
ABONIFAC	1	1	1	1	1	1	1	1	1	Antonio Bonifacio
ADMGROUP	1	1	0	0	0	0	0	0	0	Used in Security lab
ADMIN	2	0	2	2	2	2	2	2	2	CBC Administrator for Management Central
ADMOWN	1	0	1	1	1	1	1	1	1	Security Fundamentals Owner
ADM01	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM02	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM03	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM04	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM05	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM06	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM07	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM08	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM09	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADM10	1	1	0	0	0	0	0	1	0	System Admin and Control class
ADPOWN	1	1	1	1	1	1	1	1	1	
AJFISHER	2	1	2	2	2	2	2	2	2	Arv Fisher - Java dev't
AKENNEDY	1	1	1	1	1	1	1	1	1	Alan Kennedy
ALLOBJ	2	2	2	1	1	1	1	1	1	
AMRA	1	1	1	1	1	1	1	1	1	Nadir Amra
APPGROUP1	1	1	0	0	0	0	0	0	0	
APPGRP	1	1	0	0	0	0	0	0	0	
APPGRP1	1	1	0	0	0	0	0	0	0	
APPGRP2	1	1	0	0	0	0	0	0	0	
APPLIBOWN	1	1	0	0	0	0	0	0	0	
APPOWN	1	0	0	0	0	0	0	0	0	
APPOWN1	1	0	0	0	0	0	0	0	0	
APPSECOFR	1	1	1	0	0	0	0	0	0	

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Compliance Assessment and Reporting Tool

Profile Analysis

Drill down into user profiles as configured across LPARs

User Profile Details for Selected Systems

User Profile: QSECOFR

Region	Data Center	System Name	User Profile	Is IBM Profile	User Class	Object Authority	Is A Group Profile	Status	Limited Capability	Password Expired	Password Is *NONE	Password Expiration Interval	Has Special Authorities	ALL SPCAUT Origin	AUDIT SPCAUT Origin	IOSYSCFG SPCAUT Origin	JOBCTL SPCAUT Origin	SAVSYS SPCAUT Origin	SECADM SPCAUT Origin	SE...
Latin America-North	Mexico	BSTGEN2	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
	ROBS	CTGMOD	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*DISABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
Latin America-South	Argentina	BSTGEN	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
		BSTGENTOO	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
		CTCDBV7R1	QSECOFR																	
		CTCSEC	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*DISABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
		CTCSEC7	QSECOFR	*YES	*SECOFR	*EXCLUDE	*YES	*ENABLED	*NO	*NO	*NO	*NOMAX	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
		FIVECTESTSYS	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
North America	Rochester	CTCTEST	QSECOFR	*YES	*SECOFR	*EXCLUDE	*YES	*ENABLED	*NO	*NO	*NO	*NOMAX	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
		CTCV71	QSECOFR	*YES	*SECOFR	*EXCLUDE	*YES	*DISABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PR...
	ROBS2	BJSYSTEM	QSECOFR																	
	ROB3	CTCQDSC	QSECOFR	*YES	*SECOFR	*EXCLUDE	*NO	*ENABLED	*NO	*NO	*NO	*SYSVAL	*YES	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	*PROFILE	

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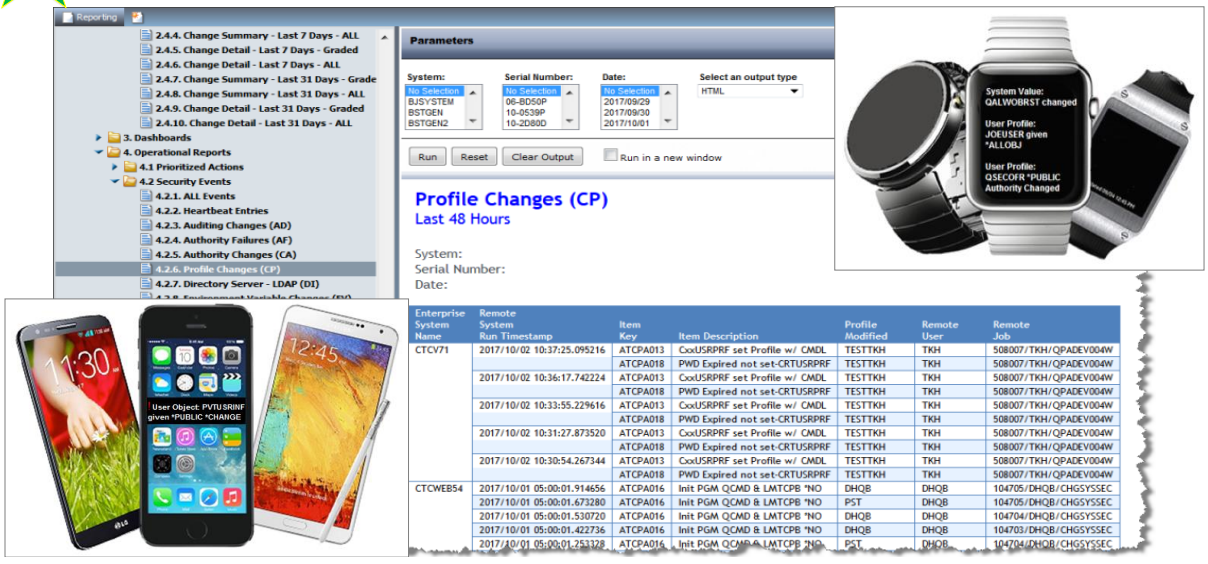
Compliance Assessment and Reporting Tool

New! Event monitoring capability. Monitor actions as they happen!



Compliance Assessment and Reporting Tool – Single Server/LPAR Edition

Localized reporting of IBM i System and Security Components

- An automated collection, analysis, and reporting tool on over 1000 system and security related risks, information, statistics and demographics. All in one location and easy to use!

- **Covers:**
  - Password management
  - Profile administration
  - Special authorities
  - Group inheritance
  - Network configuration
  - NetServer attributes
  - Operational security
  - PTF currency
  - Event monitoring
  - Customer define items
  - Security risks and more

- Enables compliance officer to demonstrate adherence to pre-defined or customer-defined security polices.
- System and Security reporting made easy!

Area Reviewed	Risk Potential	Value Retrieved
Profiles with *ALLOBJ Special Authority	*YES	25
Profiles with *JOBCTL Special Authority	*YES	70
Profiles with *SPLCTL Special Authority	*YES	62
Profiles with Default Passwords	*YES	1
Profiles with Passwords that Never Expire (*NOMAX)	*YES	35
Group Profiles with Passwords	*NO	0
*ALLOBJ Special Authority through Group Profile	*NO	0
*JOBCTL Special Authority through Group Profile	*YES	5
*SPLCTL Special Authority through Group Profile	*NO	0
Profile objects that are *PUBLIC/Authorized	*YES	5
Profile objects that are Privately Authorized	*YES	6
Audit Journal	*YES	Yes
DDM Password Requirements	*YES	*USRIDPWD
Does the *SYSTEM Store Exist	*EXCLUDE	*EXCLUDE
ROOT (/) is Shared	*YES	Yes
ROOT (/) *PUBLIC Authority is *RWX	*YES	*RWX
Subsystems with *PUBLIC not *USE or *EXCLUDE	*YES	13
Job Descriptions with *PUBLIC not *USE or *EXCLUDE	*YES	78
Job Queues with *PUBLIC not *USE or *EXCLUDE	*YES	13
*IBM Libraries with *PUBLIC not *USE or *EXCLUDE	*YES	3
USER Libraries with *PUBLIC not *USE or *EXCLUDE	*YES	426
QSECOFR Adoption in USER Libraries	*YES	544
AUTH Lists with *PUBLIC not *USE or *EXCLUDE	*YES	9
Allow Change to System Values	*YES	Yes
QSECURITY - System security level	*LOW	40

Questions?

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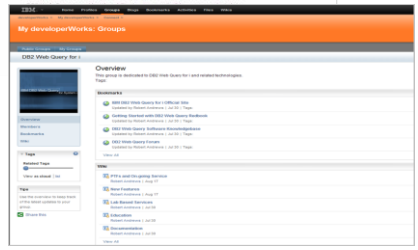
To Learn More

- DB2 Web Query for i Website
  - Ibm.biz/db2webqueryi
- DB2 Web Query for i Wiki
  - Ibm.co/db2wqwiki
- DB2 Web Query Getting Started Enablement:
  - https://ibm.biz/db2wqconsulting
- Demonstrations:
  - Wizard Analytics: https://ibm.biz/DB2WQWizards
  - End User Demos: https://ibm.biz/db2wqreportingdemos
  - Version 2.2.1 Videos: https://ibm.biz/db2wq-221-videos
- Follow DB2 Web Query guy Doug Mack on twitter at @mckdrmoly or check out his blog at http://db2webqueryi.blogspot.com/ for all the latest



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