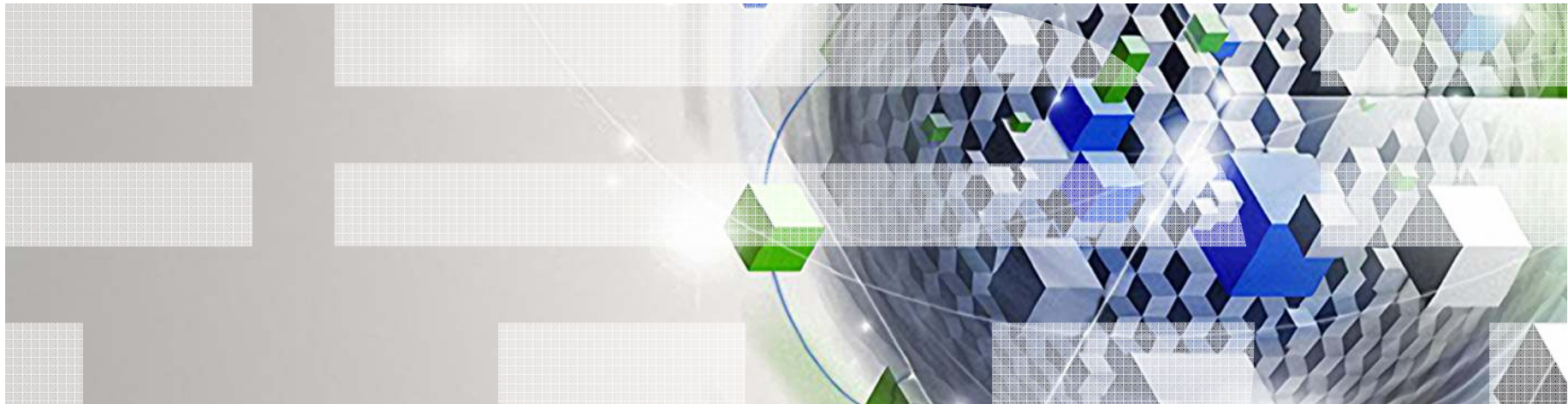


IBM i 7.1 Overview – Miscellaneous

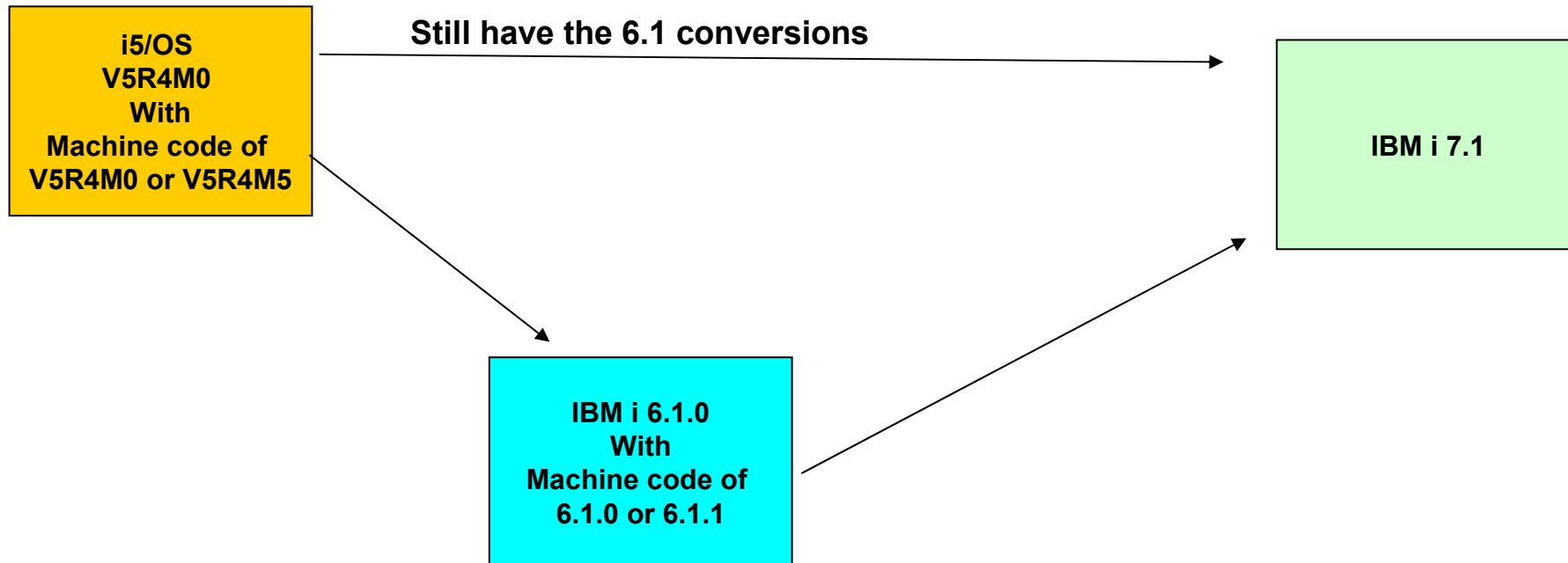


Install and Upgrade

IBM i 7.1. upgrade

**Installs on
POWER5
POWER6
POWER7**

For the most current list, see
www.ibm.com/systems/support/i/planning/upgrade/osmapping.html



***note**

IBM i 7.1 does not support direct attach operations console

POWER7 does not support direct attach operations console or twinax attach consoles

IBM i System Support

Servers	IBM i 5.4	IBM i 6.1	IBM i 7.1
POWER7 750, 770, 780		✓	✓
POWER6 JS12, 22, 23/43, 550* 560		✓	✓
POWER6 520, 550*, 570, 595	✓	✓	✓
POWER5+ 515, 525	✓	✓	✓
POWER5 520, 550, 570, 595	✓	✓	✓
800, 810, 825, 870, 890	✓	✓	
270, 820, 830, 840	✓		

* Specific models

Basics.....

- **Informational APAR that tells what PTFs are needed before upgrading to IBM i 7.1 is II14482**
- **Operating system and license program sizes are documented in the section “Licensed program releases and sizes “**
 - <https://wilson.boulder.ibm.com/infocenter/series/v7r1m0/topic/rzahc/rzahcswslpsze.htm>
- **Ensure that the cluster version is current before installing IBM i 7.1**
 - **If you are using clusters or high availability, and the partition that is being installed is a node in the cluster, then ensure that the cluster version is current before installing IBM i 7.1. Clustering supports only one cluster version difference. An i 6.1 cluster must have a cluster version of 6 before you install i 7.1. For more information see the Cluster version topic in the IBM i Information Center.**
- **Option 1 install actions**
 - **Several database files which reside within QSYS2 might not be fully updated during a slip install of Option 1 on upgrade to IBM i 7.1. See Memo to Users for steps to perform before the upgrade**

IBM i 7.1 Multi-Language Distribution Media

- IBM i 6.1 and previous versions/releases packaged each NLV separately for keyed media set
 - 51 National Language Versions (NLVs) supported
 - Order each primary language used
 - Order each secondary language used
 - Multiple media sets for installing primary and secondary languages
- IBM i 7.1 packages 51 NLVs into 3 language groups for keyed media set
 - One language group will deliver 11-21 NLVs, depending on group ordered
 - US English included in each language group
 - Install as many primary and secondary languages as desired from the group
 - When installing release upgrade, system will install the same NLV as on current release
 - Otherwise, on a manual install select language / NLV desired and then proceed with installation. Full automatic installation and upgrades from optical media that are changing the primary language during the upgrade or installation need to set the installation language using the QINSTLNG API.
 - Expect majority of customers to need only one language group
 - Can order more than one group, if desired, using 5770-NLV
- Provides simplified ordering and software delivery
- Secondary language media can still be ordered, if desired
- No change for products (LPs) shipped individually, these continue to ship the product with all languages/NLVs

3 IBM i 7.1 Language Groups

Group 1

5770-SS1 feature 5817

- 2924 English
- 2963 Belgian Dutch MNCS
- 2909 Belgium English
- 2966 Belgian French MNCS
- 2980 Brazilian Portuguese
- 2981 Canadian French MNCS
- 2926 Danish
- 2923 Dutch Netherlands
- 2925 Finnish
- 2928 French
- 2940 French MNCS
- 2929 German
- 2939 German MNCS
- 2958 Icelandic
- 2932 Italian
- 2942 Italian MNCS
- 2933 Norwegian
- 2922 Portuguese
- 2996 Portuguese MNCS
- 2931 Spanish
- 2937 Swedish

Group 2

5770-SS1 feature 5818

- 2924 English
- 2995 Albanian
- 2954 Arabic
- 2974 Bulgarian
- 2912 Croatian
- 2975 Czech
- 2902 Estonian
- 2998 Farsi
- 2957 Greek
- 2961 Hebrew
- 2976 Hungarian
- 2904 Latvian
- 2903 Lithuanian
- 2913 Macedonia
- n
- 2978 Polish
- 2992 Romanian
- 2979 Russian
- 2914 Serbian
- 2994 Slovakian
- 2911 Slovenian
- 2956 Turkish

Group 3

5770-SS1 feature 5819

- 2924 English
- 2938 English DBCS
- 2984 English DBCS
- 2930 Japanese Universal
- 2962 Japanese Katakana
- 2986 Korean
- 2906 Laotian
- 2989 Simplified Chinese
- 2987 Traditional Chinese
- 2972 Thai
- 2905 Vietnamese

Keyed Media Set Packaging – V7 vs V6

IBM i 7.1

- **Select language, drives Group 1, 2, or 3**
- **7 total DVDs**
 - 1 DVD Licensed Machine Code
 - 5 DVDs IBM i, options, keyed LPs with the Group 1, 2, or 3 languages
 - 1 DVD DB2 Web Query, Zend

DVD Labels

- **I_BASE_01 Licensed Machine Code**
- **B_GROUP1_01 - 05 (5 DVD's per set)**
- **B_GROUP2_01 - 05 (5 DVD's per set)**
- **B_GROUP3_01 - 05 (5 DVD's per set)**
- **F_MULTI_NLV (QUx used across V5, V6, V7)**

IBM i 6.1

- **Select language, drives primary NLV media**
- **5 total DVDs**
 - 1 DVD Licensed Machine Code
 - 3 DVDs IBM i, options, keyed LPs in the primary language selected
 - 1 DVD DB2 Web Query, Zend

DVD Labels

- **I_BASE_01 Licensed Machine Code**
- **B29xx_01**
- **B29xx_02**
- **B29xx_03**
- **F_MULTI_NLV (QUx used across V5, V6, V7)**

For description of 7.1 media see “Media labels and their contents” in the IBM i 7.1 information center

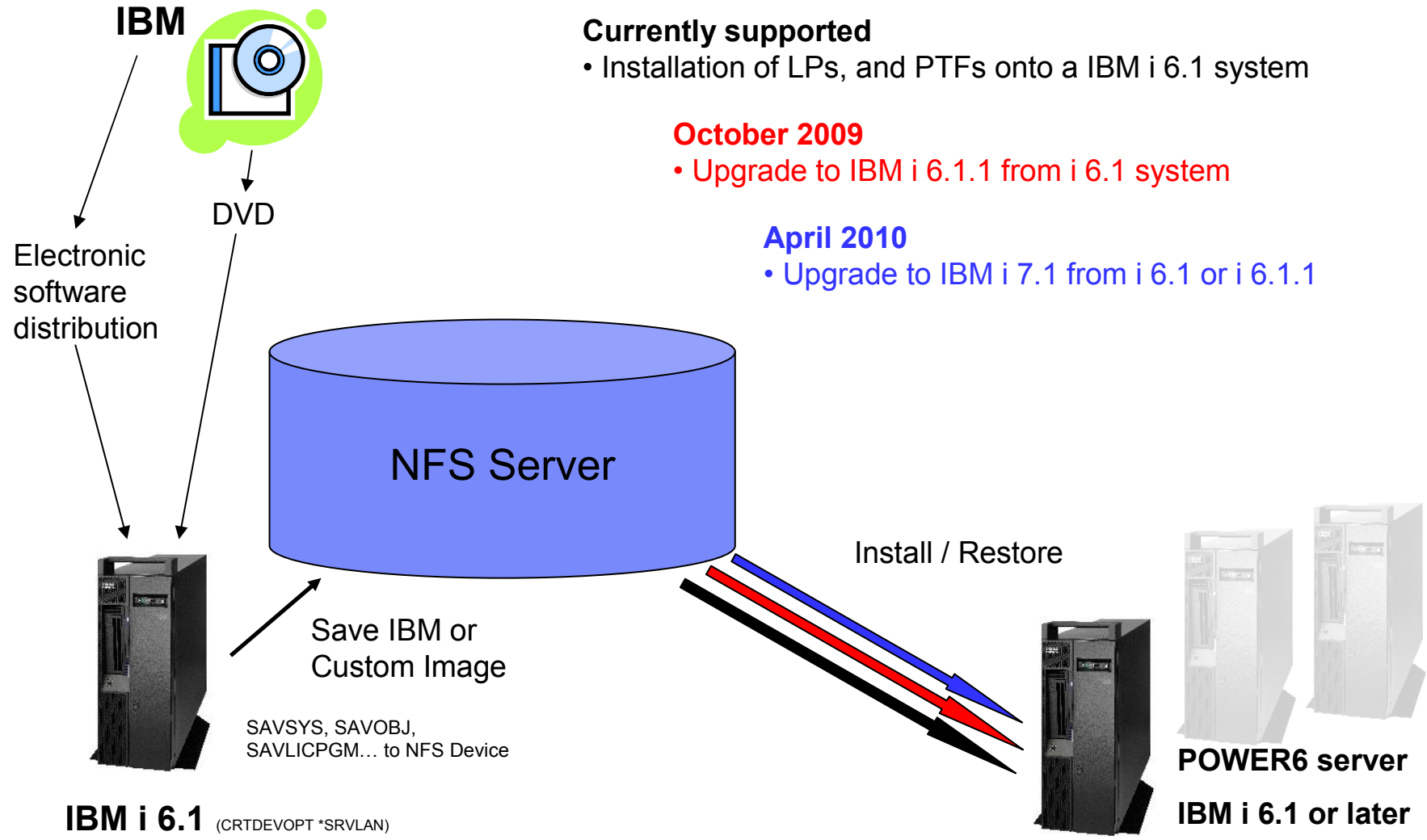
NOTE :Full automatic installation and upgrades from optical media that are changing the primary language during the upgrade or installation need to set the installation language using the QINSTLNG API.

Changes are documented in “Installing, upgrading, or deleting IBM I and related software” topic in the IBM i information center.

IBM i Media Charges/Electronic download support expanded

- **Effective April 13, 2010**
- **Applies to all IBM i marketed releases**
 - i 5.4, i 6.1, i 7.1
- **\$50 USD media charge for IBM i initial and upgrade orders**
- **No media charge if use Electronic Software Download**
- **Electronic Software Delivery (ESD)**
 - A new API called QVOIFIMG (Fill Image Catalog) has been PTFd into V5R4 and V6R1 that makes it easier to use image catalogs when working with images that have been downloaded through the ESD process.
 - Information APAR for software Installation upgrade to IBM i 7.1 (II14482) includes the specific PTF numbers for each of these releases.

IBM i Network Upgrade Simplifies Upgrading Multiple Systems



Currently supported

- Installation of LPs, and PTFs onto a IBM i 6.1 system

October 2009

- Upgrade to IBM i 6.1.1 from i 6.1 system

April 2010

- Upgrade to IBM i 7.1 from i 6.1 or i 6.1.1

* All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

IBM i 7.1 Network upgrade

- On October 20 we announced that an IBM i 6.1 environment on **POWER6** processor-based server can be upgraded to IBM i 6.1.1 or 7.1 with install images on the network file server.
 - **Prior to this enhancement user would have to install with physical media or with virtual media located locally on the system being upgraded. This would require them to manually FTP the virtual images across the network to the individual partitions to be installed.**
 - **Before you upgrade to 7.1 using network install review**
 - **Information APAR II14482**
 - **"Installing, upgrading, or deleting IBM i and related software" and "Storage Solutions" topics in the IBM i Information Center. For more information, see [IBM i Network Install using Network File System](#).**
 - **Additional helpful information on using the network install support can be found at ftp://ftp.software.ibm.com/systems/support/power/i/nfs_optical_upgrade.pdf**

Console

- **IBM i 7.1 does not support direct attach operations console**
 - Upgrade will fail if console is not changed before starting the upgrade
 - For more information about changing consoles, see Changing consoles in the IBM systems Hardware Information Center
 - POWER7 does not support direct attach operations console or twinax attach consoles
- **Auto-create service tools device IDs remote panel (RCP) privilege**
 - By default, IBM i 7.1 sets the default value of the Auto-create service tools device IDs remote panel (RCP) privilege to revoked. You can see and control this value through a Dedicated Service Tools (DST) session and Work with Service Tools Security Data – Option 12.
- **Console takeover / recovery status screen.**
 - By default, IBM i 7.1, after you enter a Service Tool user ID and password, the console take over status screen will be skipped and the previously displayed console screen will be displayed. You can see and control this value through a Dedicated Service Tools (DST) session and Work with Service Tools Security Data – Option 13
- **Console F18 take over**
 - By default, IBM i 7.1, you can take over a different console type or different console device type using the PF key 18. This allows temporary switching the console type from HMC console to LAN console without changing the tagging or resetting the operations console session. You can see and control this value through a Dedicated Service Tools (DST) session and Work with Service Tools Security Data – Option 14
- **Connecting LAN operations console for uninitialized Load Source (LS)**
 - For a MDC system that doesn't have a preloaded image and is not HMC managed, then it is required that the console type be set to LAN by the Using the console service functions. For more information about changing consoles, see Changing consoles in the IBM systems Hardware Information Center.
- Additionally, if LAN console is to use the embedded ethernet ports, then the **Enable Ethernet embedded port (E1) function** must be set **Using the console service functions.**

Miscellaneous

- **LODRUN now supports *SAVF as a device**

- **IBM® Pre-Upgrade Verification tool for IBM i**
 - Ensures that all the necessary requirements are completed before beginning an upgrade. This tool verifies key pre-upgrade steps.
 - Download tool [Pre-Upgrade Verification tool for IBM i](#)

- **Key references**
 - IBM i 7.1. information center section “Installing, upgrading, or deleting IBM i and related software “
 - IBM i 7.1 Memo-to-Users
 - IBM i planning website
 - <http://www-947.ibm.com/systems/support/i/planning/migrationupgrade.html>
 - <http://www-947.ibm.com/systems/support/i/planning/upgrade/index.html>
 - If upgrading from i5/OS V5R4 to IBM i 7.1, review the above information for IBM i 6.1 for other items that will apply to this upgrade such as object conversions

Miscellaneous..... See Memo To Users.....

■ **JAVA considerations**

- IBM Toolbox for Java shipped with option 3 of IBM i
 - **In IBM i 7.1, the IBM Toolbox for Java is shipped as part of Option 3 of IBM i - Extended Base Directory Support. All functions and features that were available in the original (5761-JC1) product are available and supported in Option 3. The install process for 5770-SS1 (Option 3) automatically removes 5761-JC1 if it is installed on the system.**
- **JV1 options for Java Developer Kit 1.4, 5.0 and 6 no longer supported**
 - IBM i 7.1, no longer supports the JV1 options for Java Developer Kit 1.4, 5.0 and 6. The options were also referred to as Classic Java; Classic Java has been replaced by the IBM Technology for Java (IT4J) product. In release i 7.1, the default JVM is IBM Technology for Java J2SE 6.0 32 bit.

■ **Dynamic Host Configuration Protocol (DHCP) changes**

- DHCP has moved from the base OS to option 31 DHCP has moved from the base OS to option 31 and requires that Option 33 is loaded.

■ **IBM Eclipse Help System (Option 3)**

- STRTCPSVR *IBMHELP server in option 3 of IBM i removed

■ **High Availability Switchable Resources (Option 41)**

- Clusters GUI withdrawn from Option 41


IBM i License Transfer PRPQ – Target of first half 2010

- Enables IBM i entitlement to be transferred between selected systems

- Implemented WW via econfig
- SWMA required on From and To systems
- From system must have been installed at least one year
- Applicable to optional, not base licenses
- Administrative fee plus license price difference
- Applicable to 550 and larger systems
- IBM i processor-core entitlement moves to new system

Making it Easier for Clients to

- **Buy a replacement system**
- **Consolidate systems**
- **Move workloads**

From POWER5, 6, 7		To POWER6, 7
9406-550, 570, 595		
Power 550 (9409-M50, 8204-E8A)		Power 550 (9409-M50, 8204-E8A)
Power 560 (8234-EMA)		Power 560 (8234-EMA)
Power 570 (9406-MMA, 9117-MMA)		Power 570 (9406-MMA, 9117-MMA)
Power 595 (9119-FHA)		Power 595 (9119-FHA)
Power 750, 770, 780		Power 750, 770, 780

Save and Restore

Fast Restore of Single Object

- **Save operations now track the position (physical location on tape) of each object**
 - New field returned for each object in Save OUTFILE or OUTPUT
 - You must retain this positioning information for use during restore.
- **New restore POSITION parameter**
 - RSTLIB RSTOBJ and RST commands
 - QsrRestore and QSRRSTO apis
 - POSITION(*START) is default and gives existing behavior
 - POSITION(hexadecimal value) allows you to pass the position for a single object to be restored
 - Requires that sequence number SEQNBR also be specified
- **Also supported for parallel restores**
 - QsrCreateMediaDefinition api enhanced to specify positioning for each media file
- **Very significant performance improvements can result**
 - For example: Restoring last object from 1.1 million IFS object save went from about 22 minutes to less than 3 minutes
- **Backup Recovery Media Service (BRMS/400) uses this new support**

Restore ALWOBJDIF(*COMPATIBLE)

- **New value of ALWOBJDIF(*COMPATIBLE)**
 - Essentially behaves like ALWOBJDIF(*ALL) in combination with ALWOBJDIF(*FILE) for database files.
 - In other words, FINALLY a single value that does what most people want to happen
- **Supported on RSTLIB and RSTOBJ commands**
- **Supported on QSRRSTO api**
- **RESTORE menu options 21, 22, and 23 changed to use this value if restoring to a different system**

Save/Restore Limits Eliminated or Improved

- **Removed limit that prevented saving database files with more than 16 megabytes of descriptive information**
 - Last limitation we're aware of for database files
- **Refer to Maximum Capacities – Save/Restore limits in the Info Center for details**

Miscellaneous Save/Restore Changes

- **Supported Target Releases (TGTRLS)**

- V7R1M0, V6R1M0, V5R4M0
- SAVLIB or SAVCHGOBJ of LIB(QUSRSYS) automatically performs “Retrieve System Information” (RTVSYISINF) and saves the results
- This information is already backed up if you follow recommended backup procedures.
- After a full system recovery an “Update System Information” (UPDSYSINF) LIB(QUSRSYS) could be done if you didn’t have any other backup of your system values etc.
- Support PTF’d:
 - V5R4M0 SI34094
 - V6R1M0 SI34095

- **System name will appear in output**

Miscellaneous Save/Restore Changes

- **GO SAVE/RESTORE menus enhanced to gracefully end TCP before ENDSBS *ALL**
 - ENDTCPSVR
 - ENDMETHODSVR
 - ENDTCP
 - Support PTF'd to V6R1M0 – SI35204
- **Serviceability Enhancements**
 - Collection services data collected for specific S/R events.
 - Save/Restore Flight recorder enhancements
 - New default size 5meg
 - Flight recorder size can be changed by creating a data area in either QUSRSYS or QTEMP

```
CRTDTAARA DTAARA(QTEMP/QSRFRSIZE) TYPE(*CHAR) LEN(4)
VALUE('0500')
```
 - Additional flight recorder entries
 - qsrsvr parm("METRICS") enhanced to show current directory being processed