

Sharing IBM i Knowledge

System Administration Modernisation



How to move away from the standard job Scheduler to the Advanced Job Scheduler.

DATE

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Host

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www.i-ug.co.uk



Education
Information
Communication

” You only know
what it is, when it
is no longer there.. ”

The ultimate definition of an invisible foundation.

Current Situation

What we are using now & could be using today

✓ 5250 Emulator

No need to explain.

It is what we have been using since the day the AS/400 saw the light, right?

✓ Navigator for i

Browser based interface

✓ IBM i services (SQL)

Offers extra flexibility
Use SQL to level check
(exception join)
between production & HA or DR

```

Work with Job Schedule Entries                                TEST
Status: RLS                                                08/05/26 15:18:52 CEST

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

-----Schedule-----
Opt Job      Status Date      Time      Frequency Action  Next
-----
  1 QSJERRPT  SAV  26/09/16 13:34:57 *ONCE   *SBMRLS 09/05/26
  2 QSJHEARTBT SCD *ALL    13:04:00 *WEEKLY *NOSBM  09/05/26
  3 QS9AUTPTF  SCD *SUN    12:30:00 *WEEKLY *SBMRLS 10/05/26
  4 QS9SACOL  SCD *ALL    13:34:00 *WEEKLY *NOSBM  09/05/26

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

Scheduled Job Name	Next Submission Date	Scheduled Time	Command String	User Profile For Submitted Job	Scheduled Days	Scheduled Date
QSJHEARTBT	2026-05-09	02:30:00 PM	CALL PGM(QSYS/QSJHEARTBT)	RUDI	*ALL	
QS9SACOL	2026-05-09	03:00:00 PM	QSYSWRKSRVAGT TYPE(*SRVNF) C QLSRVNF(*YES) SNDSRVNF(*YES)	RUDI	*ALL	
QS9AUTPTF	2026-05-10	04:00:00 AM	CALL PGM(QSYS/QS9AUTPTF)	RUDI	*SUN	
QSJERRPT		02:27:40 PM	QSYSWRKSRVAGT TYPE(*SRVNF) C QLSRVNF(*YES) SNDSRVNF(*YES) S RVNF(*PRBID)	RUDI		2026-02-27

```

-- category: IBM i Services
-- description: Work Management - Scheduled Job Info
--
-- Example: Review the job scheduled entries which are no longer in effect, either because they
-- were explicitly held or because they were scheduled to run a single time and the date has
-- passed.
--
SELECT * FROM QSYS2.SCHEDULED_JOB_INFO WHERE STATUS IN ('HELD', 'SAVED')
ORDER BY SCHEDULED_BY;
  
```

QUSRIJS Work with Jobs TEST 8/05/26 16:55:11

Position to Starting characters

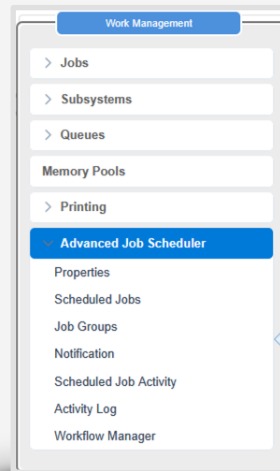
Type options, press Enter.

1=Add 2=Change 3=Hold 4=Remove 5=Display 6=Release/Reset
7=Submit immediately 8=Change command list 9=Change job LDA ...

Job Opt Name	Group Name	Grp Seq	Status	Schedule Date	Schedule Time	Schedule
BRMS_MNT	*NONE	0	*READY	9/05/26	6:00	*DAILY
BRMS_MNTR	*NONE	0	*READY	7/06/26	8:00	*FIRST
BRMS_RCYRP	*NONE	0	*HELD	*NONE	0:00	*NONE
BRMSNETCHK	*NONE	0	*READY	9/05/26	7:31	*DAILY
CLEANUP	*NONE	0	*READY	10/05/26	6:00	*DAILY
DB2PCMGNT	*NONE	0	*READY	8/05/26	23:55	*DAILY
END_IASPJS	*NONE	0	*READY	*NONE	0:00	*NONE

Parameters for options 2, 5, 7, 11, 12, 18, 19, 20 or command
===>

F3=Exit F4=Prompt F5=Refresh F11=Job statistics F12=Cancel
F13=Repeat F15=Sort date F23=More options F24=More keys



Future Situation

What you could be using tomorrow

✓ 5250 Emulator

Yes, the Advanced Job Scheduler has been around for quite a while.

It is used to be licensed until June 1, 2023.

<https://public.dhe.ibm.com/systems/support/planning/transfer/IBM.i.Price.Change.and.Simplification.pdf>

✓ Navigator for i

Browser based interface

✓ IBM i services (SQL)

Not available (yet)

<https://ibm-power-systems.ideas.ibm.com/ideas/IBMI-I-4229>






Three scenarios

Standard Job Scheduler 01

No change - Proven technology

Investment

Zero






-  If it ain't broken, don't fix it.
-  No modernisation
-  Proven technology
-  No extra time involved
-  No advantage of new functionality

Advanced Job Scheduler 02

Change - New jobs only no migration

Investment

1 - 2 days


-  Extra work
-  No additional software cost or maintenance fee
-  AJS fully integrated within IBM i
-  Investment to learn something new
-  Overcome the argument where to find the time

Advanced Job Scheduler 03

Change - Full adoption of AJS including migration

Investment

1 - 2 days

-  Even more extra work
-  Using only one tool
-  AJS fully integrated within IBM i
-  Investment to learn something new
-  Finding even more time

Advanced Job Scheduler

Standard Job Scheduler

01

No change - Proven technology

Investment

Zero

- No gain, no pain.
- Ready before you even got started.



Standard Job Scheduler

Standard Job Scheduled

02

Change - New jobs only no migration

Investment

1 - 2 days

- Install software (5770JS1)
- Apply 5770-JS1 PTFs
- Learn something new

[Installing the Advanced Job Scheduler](#)

[SF99962 - 760 IBM HTTP Server for i](#)

Getting Started [IBM i 7.6 Features and Functions](#)

Chapter 8 - Automation tool for system managing



8.3.1 Advanced Job Scheduler

Standard Job Scheduler

Standard Job Scheduled

03

Change - Full adoption of AJS including migration

Investment

1 - 2 days

- Install software (5770JS1)
- Apply 5770-JS1 PTFs
- Learn something new
- Migration

Similar to scenario 2 + migration

Migration process → 5250 option only

- GO JS
- Option 5
 - System controls
- Option 7
 - Work with Operating System job schedule entries

Standard Job Scheduler - migration process

Work with Operating System Job Schedule Entries

TEST
14/05/26 17:47:50

Type options, press Enter.
 2=Change 3=Hold 4=Remove 5=Work with 6=Release
 8=Add to Advanced Job Scheduler

Opt	Job	Status	-----Schedule----- Date	Time	Frequency	Recovery Action	Next Submit Date
█	QSJERRRPT	SAV	26/09/16	13:34:57	*ONCE	*SBMRLS	
—	QSJHEARTBT	SCD	*ALL	13:04:00	*WEEKLY	*NOSBM	15/05/26
—	QS9AUTOPTF	SCD	*USRDFN	12:30:00	*WEEKLY	*SBMRLS	17/05/26
—	QS9SACOL	SCD	*ALL	13:34:00	*WEEKLY	*NOSBM	15/05/26

Bottom

F3=Exit F5=Refresh F6=Add F12=Cancel

MA* A MW 11/003


Standard Job Scheduler - migration process

Work with Operating System Job Schedule Entries

TEST
14/05/26 17:47:50

Type options, press Enter.
 2=Change 3=Hold 4=Remove 5=Work with 6=Release
 8=Add to Advanced Job Scheduler

Opt	Job	Status	-----Schedule----- Date	Time	Frequency	Recovery Action	Next Submit Date
8	QSJERRRPT	SAV	26/09/16	13:34:57	*ONCE	*SBMRLS	
	QSJHEARTBT	SCD	*ALL	13:04:00	*WEEKLY	*NOSBM	15/05/26
	QS9AUTOPTF	SCD	*USRDFN	12:30:00	*WEEKLY	*SBMRLS	17/05/26
	QS9SACOL	SCD	*ALL	13:34:00	*WEEKLY	*NOSBM	15/05/26



Bottom

F3=Exit F5=Refresh F6=Add F12=Cancel

MA* A MW 13/003

Standard Job Scheduler - migration process

IBM i Service Agent - [Manually creating ESA job schedulers](#)

NOTE: In 7.5, ESA support using AJS to create job scheduler entries or any 3rd parties Job Schedulers beside default scheduler.

GO SERVICE option **1. Change Service Agent attributes** (or using the **CHGSRVAGTA** command) has the following option:

Job Scheduler *YES *YES, *NO, *AJS

Can specifies what kind of Job Scheduler is used to create scheduler entries automatically when Service Agent is enabled:

*YES: Default Job Scheduler is used. (Default value) ←

*AJS: Advanced Job Scheduler is used if Advanced Job Scheduler has installed.

*NO : No Job Scheduler is specified. Service Agent Job Scheduler entries will not be created automatically.

GO SERVICE option **1. Change Service Agent attributes** (or using the **CHGSRVAGTA** command)

Standard Job Scheduler - migration process

IBM i Service Agent - [Manually creating ESA job schedulers](#)

Run SQL Scripts

```

QS9MAIN                               Electronic Service Agen           System:  TEST
Select one of the following

1. Change Service Agent attributes
2. Run service information collection
3. Authorize users to access service information

Information
4. Display problem reporting information
5. Display service information collection
6. Display service registration information
7. Reports

Jobs
8. End jobs
9. Start jobs
10. Work with jobs

F3=Exit  F12=Cancel

MA*  A                               MW                               21/
  
```



```

QS9MAIN                               Electronic Service Agen           System:  TEST
Select one of the following

1. Change Service Agent attributes
2. Run service information collection
3. Authorize users to access service information

Information
4. Display problem reporting information
5. Display service information collection
6. Display service registration information
7. Reports

Jobs
8. End jobs
9. Start jobs
10. Work with jobs

F3=Exit  F12=Cancel

MA*  A                               MW                               21/007
  
```

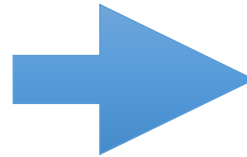

Standard Job Scheduler - migration process

IBM i Service Agent - Status since IBM i 7.5

```

File Edit Search View Connection Run Explain Monitor Editor Tools Help
*Untitled 1 x
1 CL:CHGSRVAGTA ENABLE(*NO);

CPC8C09: Service attribute ANZPRBAUTO changed to *YES by 007297/QUSER_NC/QZDASOINIT.
CPC1231: ENDJOB started for job 008087/QSRVAGT/QS9PRBSND.
CPC1231: ENDJOB started for job 008086/QSRVAGT/QS9HDWMON.
CPC1231: ENDJOB started for job 008085/QSRVAGT/QS9PRBMON.
CPC1231: ENDJOB started for job 008084/QSRVAGT/QS9PALMON.
CPD1456: Autostart job entry does not exist for job QYSDAJE.
CPC1246: 1 entries successfully removed.
CPC1239: Job schedule entry QSJHEARTBT number 000014 removed.
CPC1246: 1 entries successfully removed.
CPC1239: Job schedule entry QSJERRRPT number 000013 removed.
CPF1645: No job schedule entries found for specified name.
CPC1246: 1 entries successfully removed.
CPC1239: Job schedule entry QS9SACOL number 000012 removed.
✓ Statement ran successfully (95 ms)
    
```



```

Work with Job Schedule Entries                                TEST
Status: RLS                                                14/05/26 18:34:18 CEST
Type options, press Enter.
2=Change 3=Hld 4=Remove 5=Display details 6=Release
8=Work with last submission 10=Submit immediately

Opt Job          Status Date      Time      Frequency  Recovery Action  Next
                               -----
                               Submit
                               Date

( No job schedule entries to display)

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

MA*  A                               MW                                21/007
    
```

CL:CHGSRVAGTA ENABLE(*NO);

Standard Job Scheduler - migration process

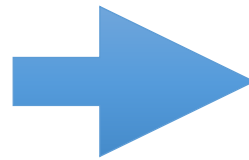
IBM i Service Agent - Status since IBM i 7.5

```

2
3 CL:CHGSRVAGTA ENABLE(*YES) SRVIN(*ALL 130000 *COLLECT 07 07) JOBSCDE(*AJS);

```

CPC9801: Object QS9PRB type *DTAQ created in library QSRVAGT.
 CPC2191: Object QS9PRB in QSRVAGT type *DTAQ deleted.
 CPC7002: 1 of 1 objects have ended journaling.
 CPD1456: Autostart job entry does not exist for job QYSDAJE.
 IJS1009: Job QSJHEARTBT added.
 IJS1070: Job QSJHEARTBT reset.
 CPF0001: Error found on ADDJOBS command.
 IJS1033: Scheduled times are required.
 IJS1009: Job QS9SACOL added.
 IJS1070: Job QS9SACOL reset.
 CPF1645: No job schedule entries found for specified name.
 CPF1645: No job schedule entries found for specified name.
 CPF1645: No job schedule entries found for specified name.
 ✓ Statement ran successfully (774 ms)



QUSRIJS Work with Jobs TEST 14/05/26 19:14:01

Position to Starting characters

Type options, press Enter.
 1=Add 2=Change 3=Hold 4=Remove 5=Display 6=Release/Reset
 7=Submit immediately 8=Change command list 9=Change job LDA ...

Opt	Job Name	Group Name	Grp Seq	Status	Schedule Date	Schedule Time	Schedule
■	QSJHEARTBT	*NONE	0	*READY	15/05/26	12:30	*DAILY
—	QS9SACOL	*NONE	0	*READY	15/05/26	13:00	*DAILY

Parameters for options 2, 5, 7, 11, 12, 18, 19, 20 or command
 ==>
 F3=Exit F4=Prompt F5=Refresh F11=Job statistics F12=Cancel
 F13=Repeat F15=Sort date F23=More options F24=More keys

MA* A MW 11/002

CL:CHGSRVAGTA ENABLE(*YES) SRVIN(*ALL 130000 *COLLECT 07 07) JOBSCDE(*AJS);

Standard Job Scheduler - migration process

Try to prevent usage of the Standard Scheduler

```

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

Opt  Job          Scheduled By  Text
[ ]  @DONOTUSE    RUDI        Please use the Advanced Job Scheduler

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

MA*  A  MW  12/0

```

Advanced Job Scheduler - other uses

The perfect place to keep record of common default changes

Scheduled Job Properties

Job name: CHGCMDDFT

Group name:

Sequence: 0

Description: Change command defaults after IBM i upgrade

Commands:

Sequence	Enabled	Command
10	True	CHGCMDDFT CMD(STRTCP) NEWDFT('EIMASSOC(*NODLT)') /*
20	True	CHGCMDDFT CMD(DLTUSRPRF) NEWDFT('EIMASSOC(*NODLT)') /* CHANGE THE COMMAND DEFAULT IN ORDER TO PREVENT LDAP RE
30	True	CHGCMDDFT CMD(QZRDWNSYS) NEWDFT('EIMASSOC(*NODLT)') /*
40	True	CHGCMDDFT CMD(DLTUSRPRF) NEWDFT('EIMASSOC(*DLT)') /* RESET CHANGE COMMAND DEFAULT ON DLTUSRPRF COMMAND */
50	True	CHGCMDDFT CMD(QZRDWNSYS) NEWDFT('EIMASSOC(*DLT)') /*
60	True	CHGCMDDFT CMD(PWRDWNYSYS) NEWDFT('INSPTFDEV(*SERVICE)')
70	True	CHGCMDDFT CMD(PWRDWNYSYS) NEWDFT('INSPTFDEV(*NONE)')

Run as remote command:

Application:

OK Cancel

Run Scheduled Job

Job name: CHGCMDDFT

Now

Specified date/time: 05/14/2026, 07:53 PM

Minutes from now: 0

Starting command: First command

Ending command: [20] CHGCMDDFT CMD(DLTUSRPRF) NEWDFT('EIMASSOC(*NODLT)') /* CHANGE THE COMMAND DEFAULT IN ORDER TO PREVENT LDAP RE
[30] CHGCMDDFT CMD(QZRDWNSYS) NEWDFT('EIMASSOC(*NODLT)') /*
[40] CHGCMDDFT CMD(DLTUSRPRF) NEWDFT('EIMASSOC(*DLT)') /* RESET CHANGE COMMAND DEFAULT ON DLTUSRPRF COMMAND */
[50] CHGCMDDFT CMD(QZRDWNSYS) NEWDFT('EIMASSOC(*DLT)') /*
[60] CHGCMDDFT CMD(PWRDWNYSYS) NEWDFT('INSPTFDEV(*SERVICE)')
[70] CHGCMDDFT CMD(PWRDWNYSYS) NEWDFT('INSPTFDEV(*NONE)')

Check Dependence

Update Dependence

Run next job

OK Cancel

Advanced Job Scheduler - other uses

Automate report distribution

Scheduled Job Properties

General

Schedule

Batch Information

Notification

Documentation

Problem Recovery

Communication

Local Data Area

Last Run

Job name: PRTDSKINF

Group name:

Sequence: 0

Description: Retrieve Disk Information

Commands:

Actions

Sequence	Enabled	Command
10	True	PRTDSKINF RPTTYPE(*LIB)

Total Rows: 1 << < 1 > >> 100

Run as remote command:

Use start time of day:

Type of job:

Scheduled

Non-scheduled

Alternate

Application:

Report distribution list: PRTDSKINF

Advanced Job Scheduler - other uses

Add transparency to Exit Point Programs or QSTRUPPGM

General

Batch Information

Notification

Documentation

Problem Recovery

Communication

Local Data Area

Last Run

Job name: POSTVRYON

Group name:

Sequence: 0

Description: Post IASP Vary *ON is executed

Commands:

Actions

Sequence	Enabled	Command
10	True	STRTCPIFC ALIASNAME(ICLIENT1)
20	True	DLYJOB DLY(15)
30	True	STRTCPSVR SERVER(*NETSVR)
40	True	QSH CMD(/TESTIASP1/QIBM/UserData/WebSphere/AppServer/V9/Base/profiles/WAS90SVR/bin/osgiCfgInit)
50	True	RLSJOBJS JOB(FC_IASP *NONE *NONE)
60	True	SBMJOBJS JOB(STR_IASPJS) TIME(*IMMED)
70	True	SBMJOBJS JOB(STRPRTWTR) TIME(*IMMED)
80	True	STRTCPSVR SERVER(*HTTP) HTTPSVR(WEBSEVER)
90	True	SBMJOBJS JOB(post_swtch) TIME(*IMMED)

Total Rows: 9 << < 1 > >> 100

Run as remote command:

Use start time of day:

Type of job:

Scheduled

Non-scheduled

Alternate

Application: IASP

Report distribution list:

SBMJOBJS JOB(POSTVRYON) TIME(*IMMED)

Advanced Job Scheduler - other uses

Files to Omit when Using a Replication Software

Resolving The Problem

When using the Advanced Job Scheduler in conjunction with replication, there are a few files that should not be replicated. However, this is all subject to the environment and set up so we can only give suggestions.

If the user is replicating QUSRIJS from the source to QUSRIJS on the target, it is suggested that the user stop replication on the following files:

- QUSRIJS/QAIJSUSR - This is the user file. Contains the default data library for a user.
- QUSRIJS/QAIJSDL - This contains the list of data libraries that exist on that system.
- QUSRIJS/QAIJS1MJ - This contains the active AJS jobs that started with STRJS on that system.
- QUSRIJS/QAIJSMJ - This contains the active AJS jobs that started with STRJS on that system.
- QUSRIJS/QAIJSRMT - This contains the remote or target systems and the type of communication used to that system.
- QUSRIJS/QAIJS1RM - This contains the remote or target systems and the type of communication used to that system.
- All *DTAQ (Data Queue) objects in library QUSRIJS

NOTE: If your Advance Job Scheduler data library is called anything other than QUSRIJS, the same files and data queues in that data library have to be omitted from replicating.

The above files all contain information that is specific to that system. So if these are replicated and that is not the correct set up needed for that system, you will see strange results. The files must exist though. So they will need to be replicated and then you should customize the settings in AJS on the target system to update the files with the correct information that needs to be set. Then do not replicate these files to overwrite your customizations on the target system.

Here is how to update the information in each file to populate them with the correct information on the target system:

QAIJSUSR - In Navigator for i, Work Management, Advanced Job Scheduler, Properties, Users

QAIJSDL - In Navigator for i, Work Management, Advanced Job Scheduler, Properties, Data Libraries

QAIJS1MJ and QAIJSMJ - ENDJS to make sure monitor is ended on target, clear the files, then STRJS

QAIJS1RM and QAIJSRMT - In Navigator for i, Work Management, Advanced Job Scheduler, Properties, Systems & Groups

Advanced Job Scheduler - other uses

Why limit yourself to one Advanced Job Scheduler environment?

One or more scheduling environment for applications offers the following advantages:

- ◆ no longer are system tasks mixed with application tasks
- ◆ extra security
- ◆ separation of duty and tasks
- ◆ Extra flexibility
- ◆ proper cleanup

Advanced Job Scheduler - other uses

How to create a new Scheduling environment?

The screenshot shows the 'Advanced Job Scheduler - Properties' window with the 'Data Libraries' tab selected. A 'New Data Library' dialog is open, allowing the user to create a new data library. The dialog contains the following fields and options:

- Name: JS_APP1
- Description: Job Schedules for Application 1
- Monitor
- Monitor job name: JS_APP1
- Initial ASP group: Current ASP group
- Automatically start monitor
- Create data library
- ASP device: *SYSBAS

The background window shows a table with the following columns: Name, Description, Monitor, Job Name, and Status. The table contains one row with the following values: QUSRIJS, Yes, QJSSCD, and Active.

Advanced Job Scheduler - other uses

How to create a new Scheduling environment?

Name	Description	Monitor	Job Name	Status
JS_APP1	Job Schedules for Application 1	Yes	JS_APP1	Inactive
QUSRIJS		Yes	QIJSSCD	Active

Total Rows: 2

```

Work with AJS Job Monitors
                                TESTCBUF
                                24/05/26 15:05:35
Current user data library . . . . . : QUSRIJS
Default data library . . . . . : QUSRIJS

Type options, press Enter.
1=Start job monitor  2=Change  6=End job monitor
7=Change current user data library  8=Work with monitor job ...

Opt  Data      Job      Auto
     Library   Monitor  Monitor Start  Status  Text
-    -         -        -      -      -      -
     JS_APP1   JS_APP1  *YES  *YES  *INACTIVE Job Schedules for Applicatio
     QUSRIJS   QIJSSCD  *YES  *YES  *ACTIVE

F3=Exit  F5=Refresh  F12=Cancel  F23=More options
Mâ + A MW 12/003
    
```

Advanced Job Scheduler - Properties

General

IBM Advanced Job Scheduler for IBM i version: 7.2.26.118

Data library - IASP: QUSRIJS - IASP status: *SYSBAS

Scheduler: JS_APP1 - Current ASP group Monitor status: Active

Activity retention: Log retention (days): 180

Q & A

Thank you