



June 2008

In This Issue

[Mystery Jobs in V5R4](#)

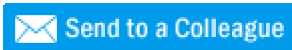
[Number of Jobs on the System](#)

[Release levels and PTFs](#)

Quick Links

[More About Us](#)

[Upcoming Events](#)



Quick Links

[**Register Now**](#)

[**Last Month's**](#)

[**Newsletter**](#)

[**More About Us**](#)

Dear Pete,

Happy Birthday AS/400! This week our beloved machine will celebrate its 20th birthday (more about that in our third feature article). How times have changed, and how times have improved. You would have to admit that the AS/400 has seen many great improvements over the years. In previous newsletters, we covered news on 6.1. We have other topics this month.

This issue of our newsletter has four articles. In the first, we'll take a look at the mystery jobs of V5R4. As performance is an issue in most shops, our second article deals with the number of jobs in your system. Learn the differences between number of jobs in WRKACTJOB and WRKSYSSTS and how you should properly configure your System values for these. The third article is some commentary on the AS/400's birthday. The last article has the updated PTF information for your use.

iTech Solutions can help you improve performance, upgrade OS/400, perform security audits, implement a High Availability solution, VoIP, Systems Management, PTF management, upgrade an existing machine, or upgrade to a new machine. If you are thinking of LPAR or HMC, then think iTech Solutions.

We have the skills to help you get the most out of your System i. For more information on any of the articles below please visit us at www.itechsol.com or contact us at info@itechsol.com. We would also like to know what you think of this newsletter and any items you would like us to discuss in future issues.



Mystery Jobs in V5R4



After upgrades to V5R4, it's almost inevitable that I get a call from the customer asking, "What are the 74 SRVMON jobs that are now running in QUSRWRK subsystem?" Immediately followed by the question, "Do I need them all?" I will answer the second question first, only because it's easier. Yes, you do need them all. Ok, now that you know that you need them, what are they, and why are there 74?

When the Service Monitor starts, a series of watches are initiated. There is one watch for each policy defined in the policy file. There is a one-to-one relationship between a started watch and a job being started. These jobs are named SRVMONxxxx, with the xxxx being sequential numbers. They currently run from 0000 to 0073. These jobs are watching for problems on your system, and each job is specialized for a particular kind of problem within a certain module of i5/OS. When a problem occurs that matches one of those being watched (or monitored), then debug data is collected and an entry is created in the i5/OS Problem Log. You can see those problems with the WRKPRB command. This allows the problem and the associated data to be sent to IBM for problem determination. I am told that IBM can update the policy file via PTF to increase the types of problems that are monitored, where additional Server Monitor jobs can be established.

You can use the Work with Watches command, WRKWCH, to show a panel with the list of active watches on your system. While it won't tell you what they are monitoring, it will tell you whether any of them are not started. These Server Monitors are on the system to improve your reliability, so let them run and do their part.

Number of Jobs on the System

How many jobs are currently on your system? If you look at WRKACTJOB, in the upper right-hand side of the screen, it will display the number of jobs with a status of Active. Yet if you look at WRKSYSSTS and look in the upper left-hand quadrant of the screen, it will display Jobs in the System. On the system I am currently looking at, WRKACTJOB has 575 jobs, and WRKSYSSTS has 18,137 jobs. Well these two numbers aren't even close. Remember, WRKACTJOB is displaying the number of jobs that are ACTIVE in the system. WRKSYSSTS displays the total number of jobs in your system. A job can be in one of three states: ACTIVE, on Job Queue, or on Output Queue. Therefore, it makes sense that WRKSYSSTS always shows you more jobs than WRKACTJOB.

There are a few System Values that you should correlate to these values. The first one is QACTJOB. This should be slightly higher than the value on the WRKACTJOB command. So, on my system from the values discussed above, I would make QACTJOB about 600. The next value is QTOTJOB. This should be higher than WRKSYSSTS jobs in the system. On this system, I would probably change QTOTJOB to 19,000. Every job on the system will be in the Work Control Block (WCB) Table; therefore it's important that you size this table correctly. If you size the WCB Table too small, it will be fragmented. After changing these system values, you need to compress these job tables during the next IPL. You can use the CHGIPLA command to set the job tables to be compressed at the next IPL. Make sure you change it back after the IPL. Once this is all done, you should see all the commands that use your Work Control Block table quicker (WRKUSRJOB, WRKSBJOB, WRKSPLF, WRKACTJOB, etc).

I can tell from the spread of the two numbers of jobs in WRKACTJOB and WRKSYSSTS, that there are a lot of spool files on this system. In an article a few months back, [Previous articles](#), we discussed the Delete Expired Spool files command DLTEXPSPLF. I recommend that all customers make plans for (or "consider") archiving or deleting spool files.

→ Happy Birthday AS/400 !!!



The AS/400 is twenty years old this week on June 21st. Many of the shops that I visit still call it an AS/400, or perhaps just "the 400". Twenty years is a long time for a computer, but are we really still on an AS/400? No, not at all. We have gone from an AS/400 to an iSeries, to a System i, and now to Power Systems. While it still runs our applications, even the operating system has changed names from OS/400, to i5/OS, to now just i. The twenty years is really the evolution of the technology and what it has become. Name changes happen, but what we need to consider is the same program that ran on OS/400 in 1989 can run on i Operating System 6.1 today without ever needing to be recompiled. Regardless of what the machine and the operating system are now called, that is impressive technology and customer support.

We are currently on our 12th generation of RISC processors, and the POWER 6 chip that is now in the new machines is the fastest chip in the industry. Moving across that many generations of RISC, as well as from CISC to RISC was all due to some pretty smart software engineers at IBM Rochester who created the Technology Independent Machine Interface (TIMI). During the CISC to RISC conversion and now as we upgrade from i5/OS V5R4 to 6.1, your programs need to be re-encapsulated. This re-encapsulation at 6.1 can occur if your programs have "creation data" or observability. We have been busy analyzing our customer's machines in preparation for this upgrade to 6.1, and many of our customer's applications are failing the Analyze

Object Convert process because they have neither creation date nor observability. In most cases, all we had to do was get a new version of the software from their application vendor. Give us a call and let us help you prepare for your 6.1 upgrade.

Think back to your first AS/400, and realize that the smallest box today outperforms the largest box in the product line on Day One of the AS/400 launch by probably a factor of 1,200 times. If you look at how open the box has become with TCP/IP, PASE, DB2/400, running new technologies like PHP, MySQL, WebSphere, Domino, all the while still providing what it does best: handling the database and running our applications. Applications are the backbone of this machine, and the numerous software vendors writing an application gives everyone a great choice to find an application that meets their requirements. It's really no wonder that the system is still going strong.

The hardware has made huge strides over the years in terms of performance, and now with the merger of p & i into Power Systems, this is driving the prices down for all of us. At the same time, i5/OS has been constantly improved over the years, adding new features and functions with every release. I have been in meetings at Rochester this year and have seen development plans for i5/OS with new releases and new functionality going out over five more years, and there is no indication that it is stopping there. If you have a requirement, send it to us, and I will get it before the group that prioritizes these customer requests. We can't guarantee that it will get into a future release, but it will definitely get reviewed. If you send them, please put a description of the problem and a business case for why you need this enhancement.

Let's hope the next 20 years are as exciting as the first 20 years.

Happy Birthday AS/400 !

 **Release levels and PTFs**

People are always asking me how often they should be performing PTF maintenance, and when is the right time to upgrade their operating system. I updated this article from last month with the



current levels of PTFs. Let's look at PTFs. First, PTFs are Program Temporary Fixes that are created by IBM to fix a problem that has occurred or to possibly prevent a problem from occurring. In addition, some times PTFs add new functionality, security, or improve performance. Therefore, I am always dumbfounded as to why customers do not perform PTF maintenance on their machine at least quarterly. If IBM has come out with a fix for your disk drives, why do you want to wait for your disk drive to fail with that problem, only to be told that there is a fix for that problem, and if you had applied the PTF beforehand, you would have averted the problem. Therefore, I think a quarterly PTF maintenance strategy is a smart move. Many of our customer's are on our quarterly PTF maintenance program, and that provides them with the peace of mind of knowing their system is up to date on PTFs. Below is a table of the major group PTFs for the last few releases.

| | Cumulative Package | Group Hipers | Database Group | Java Group | Backup Recovery |
|------|--------------------|--------------|----------------|------------|-----------------|
| 6.1 | 8127 | 13 | 4 | 1 | 2 |
| V5R4 | 8057 | 76 | 16 | 13 | 21 |
| V5R3 | 8085 | 151 | 21 | 21 | 29 |
| V5R2 | 6080 | 189 | 25 | 27 | 27 |

The easiest way to check your levels is to issue the command WRKPTFGRP. They should all have a status of installed and you should be up to the latest for all the above, based upon your release. Now there are more groups than the ones listed above, but these are the general ones that most people require. We can help you know which group PTFs you should be installing on your machine, based upon your licensed programs. Here is a nice tidbit. The Cumulative PTF package number is broken down as YDDD, where Y is the year and DDD is the day it was released. Therefore, if we look at the

cumulative package for V5R4, the ID is 8057. We can determine that it was created on the 57th day of 2008, which is February 26th, 2008. Look at your machine and this will give you a quick indication of just how far out of date in PTFs you may be. I left V5R1 off the list, because if you are on V5R1, you don't need to be worrying about PTFs, you really need to be upgrading your operating system. The same can be said for V5R2 and V5R3, but there are still customers who are on those releases.

If you have an HMC, you should be running V7.3.3, with PTF MH01105 installed. For your Flexible Service Processor (FSP) that is inside your Power 5 or Power5+ (520, 515, 525, 550, 570), the level should be 01_SF240_338. Power 6 customers will have the latest FSP code installed since those processors are new. If you need help with upgrading your HMC or FSP just give us a call. We will be happy to perform the function for you.

We have the skills to help you get the most out of your System i. For more information on any of the articles please contact us at info@itechsol.com. We would also like to know what you think of this newsletter and any items you would like us to discuss in future issues.

Our staff of Certified i5/OS professionals can help you get more out of your machines. Remember, i want everything to work.

i want control.

i want an **i**

i need iTech Solutions.

Sincerely,

Pete Massiello
iTech Solutions

iTech

Solutions Group, LLC



www.itechsol.com



[Forward email](#)

✉ SafeUnsubscribe®

This email was sent to pmassiello@itechsol.com by pmassiello@itechsol.com.
[Update Profile/Email Address](#) | Instant removal with [SafeUnsubscribe™](#) | [Privacy Policy](#).

Email Marketing by



iTech Solutions | 36 Mill Plain Rd. Suite 304 | Danbury | CT | 06811