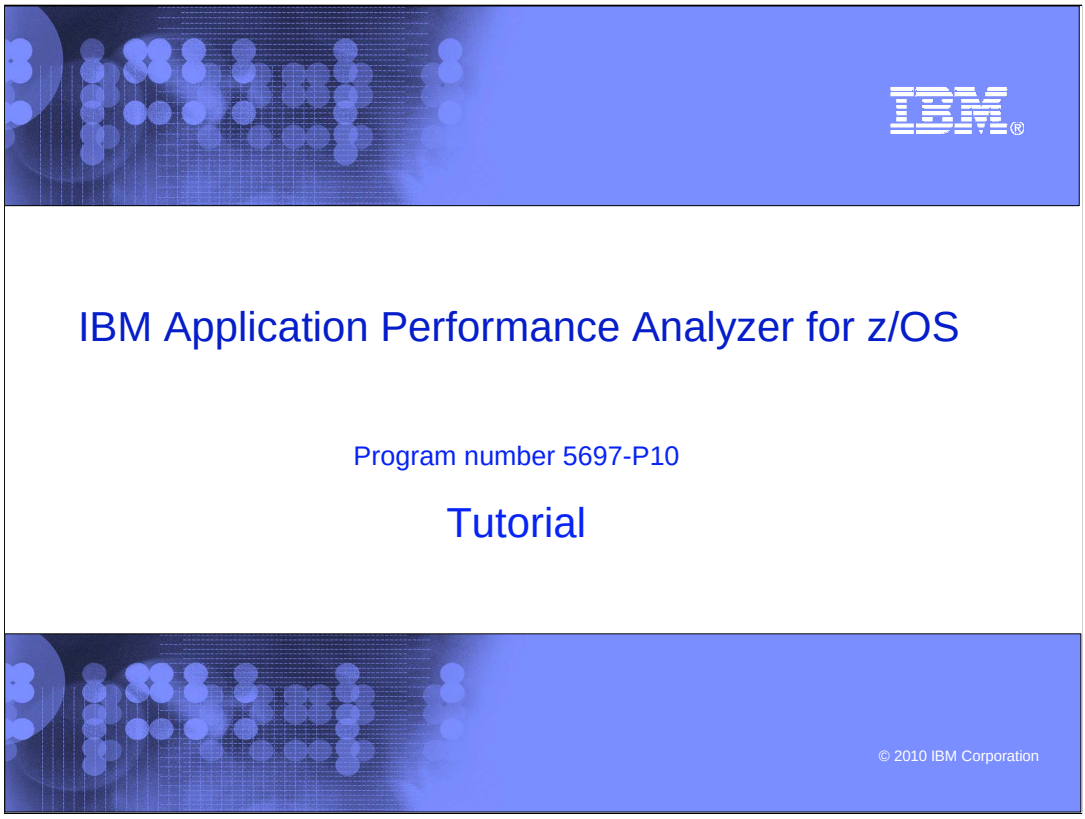
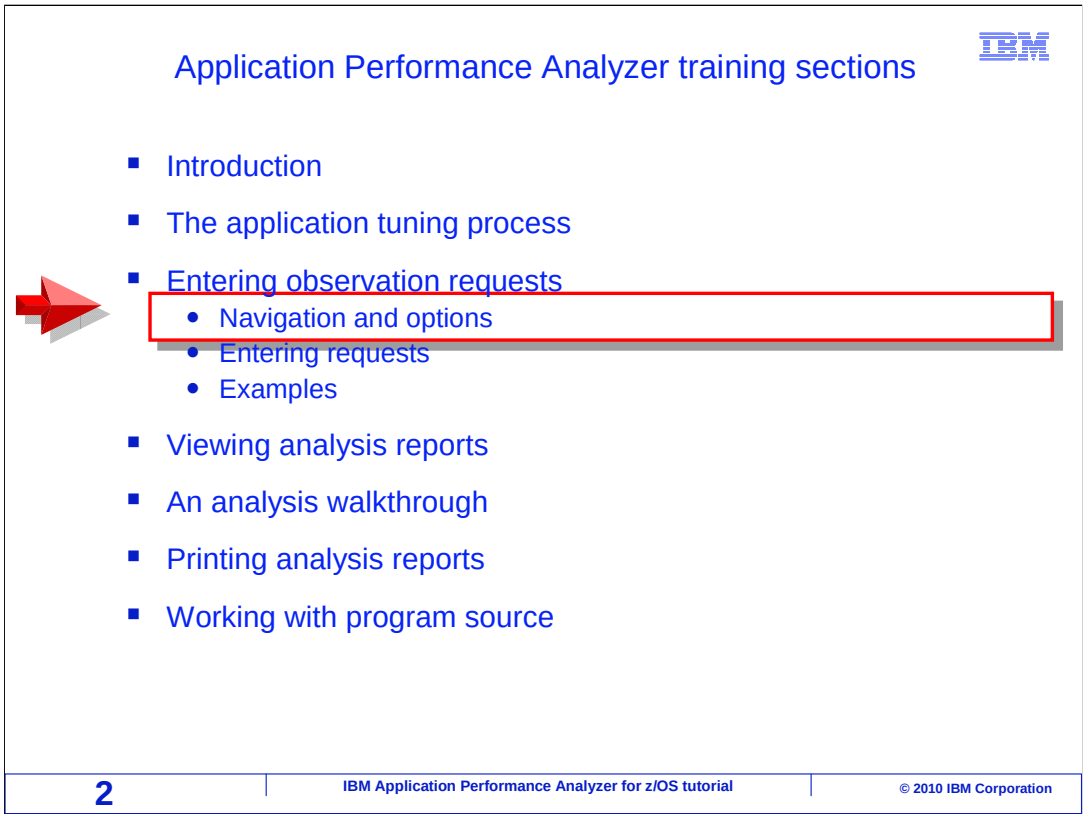
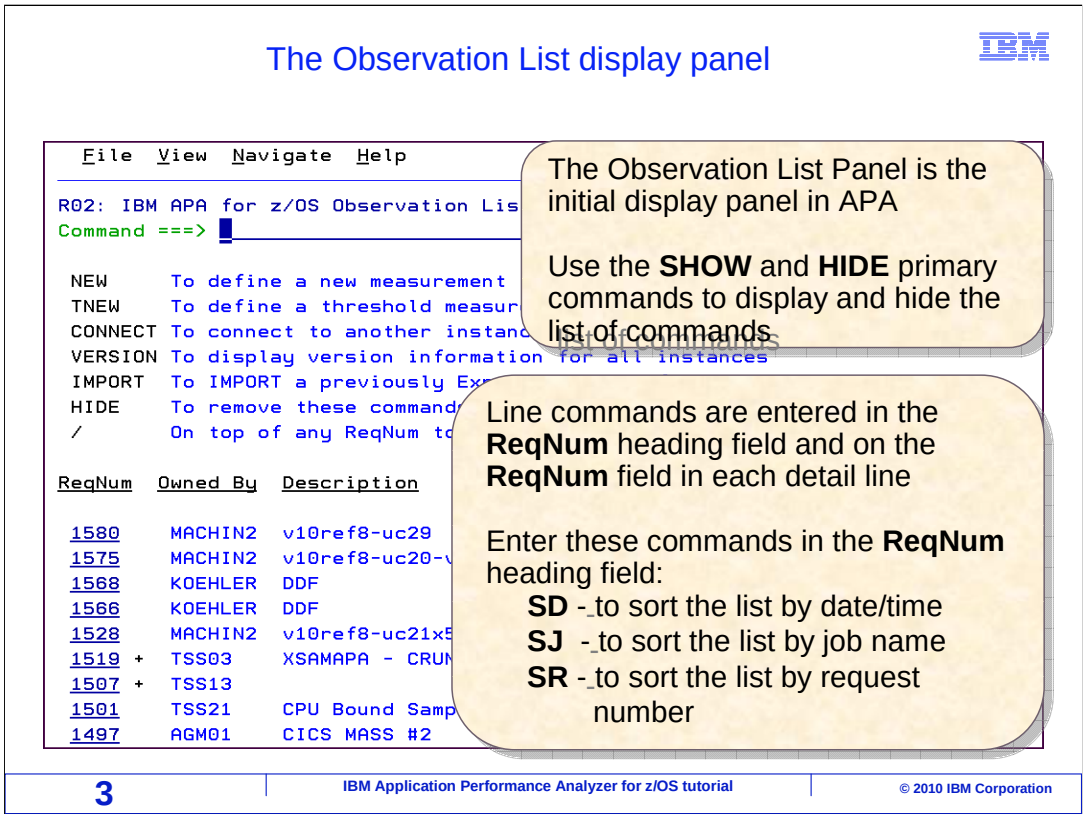


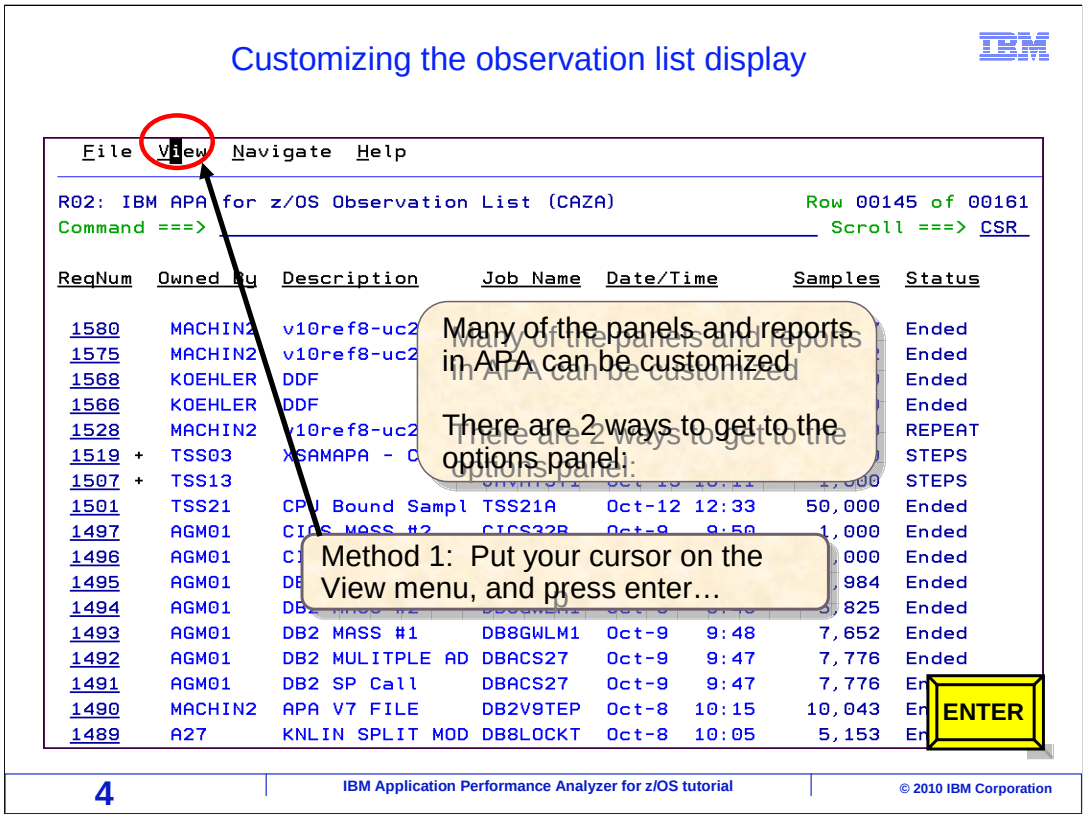
This is the tutorial for IBM's Application Performance Analyzer for z/OS®, one of the IBM zSeries® problem determination tools.



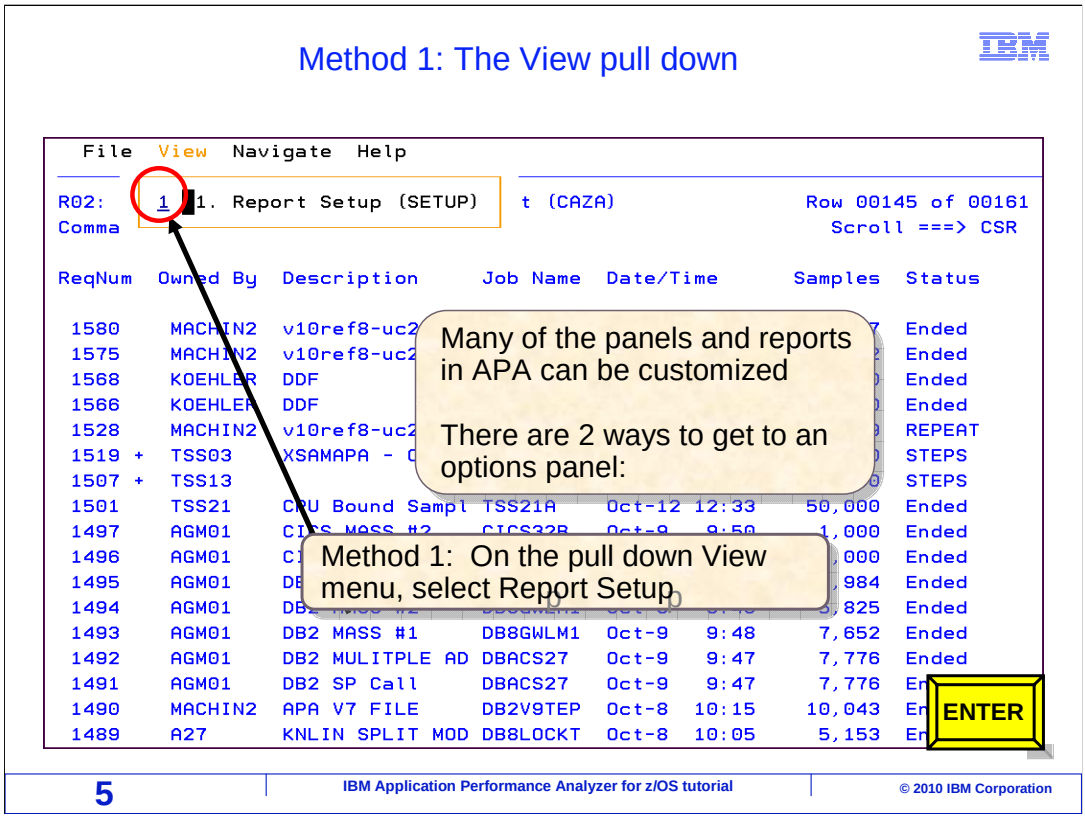
In this section: “Entering observation requests”, you will learn how to initiate observation requests, to have APA monitor an application and collect performance data. You will start with learning how to navigate the APA panels and how to enter a new request. Then you will go through some examples of how to enter various types of requests.



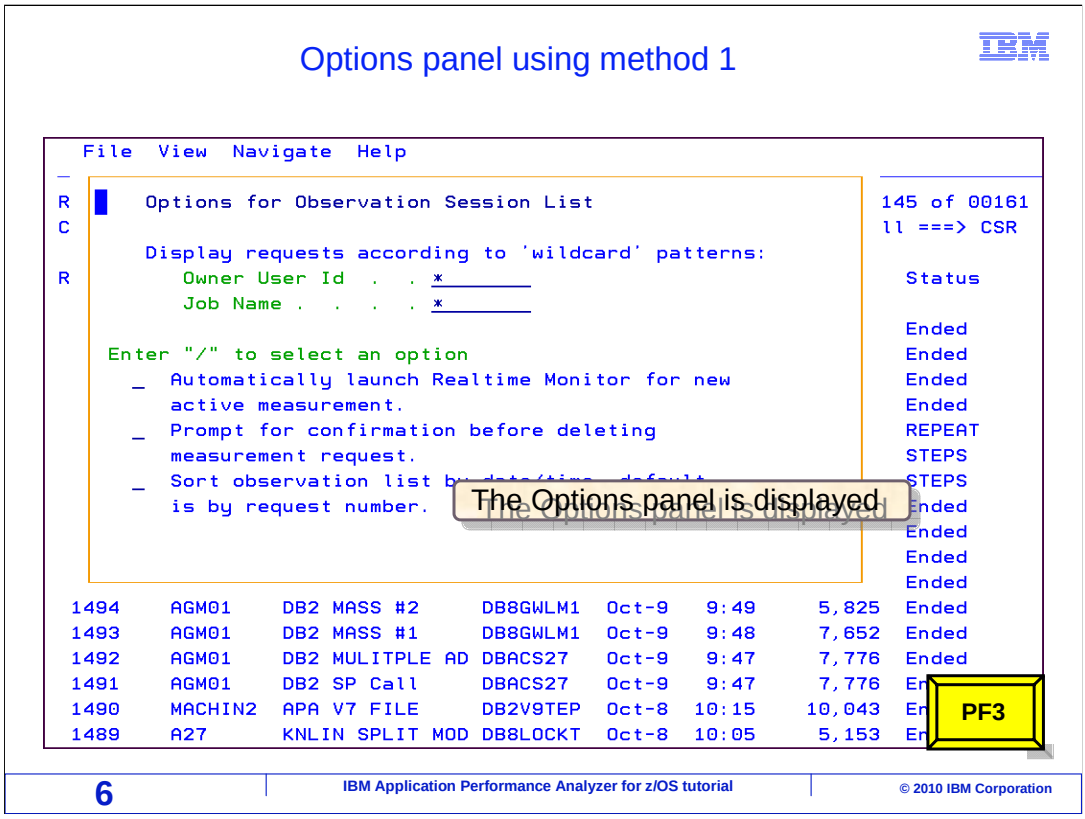
The person who installed APA on your system will have set up an option on your ISPF menus to get to APA. When you get there, this is the first panel that is presented, the observation list. This panel displays a list of observation requests. At the top portion of the screen, there is a list of commands along with their description that can be used on this panel. For example, you can use the Show and Hide primary commands to display and hide the list of commands on this panel. Once you become familiar with these commands, you should you use the Hide command to remove these commands from your display. That way you can see more of your observation requests upon your initial display of this panel. Notice the Request Number field along the left side of the panel. Line commands can be entered in the ReqNum heading field and on each detail line of the request number.



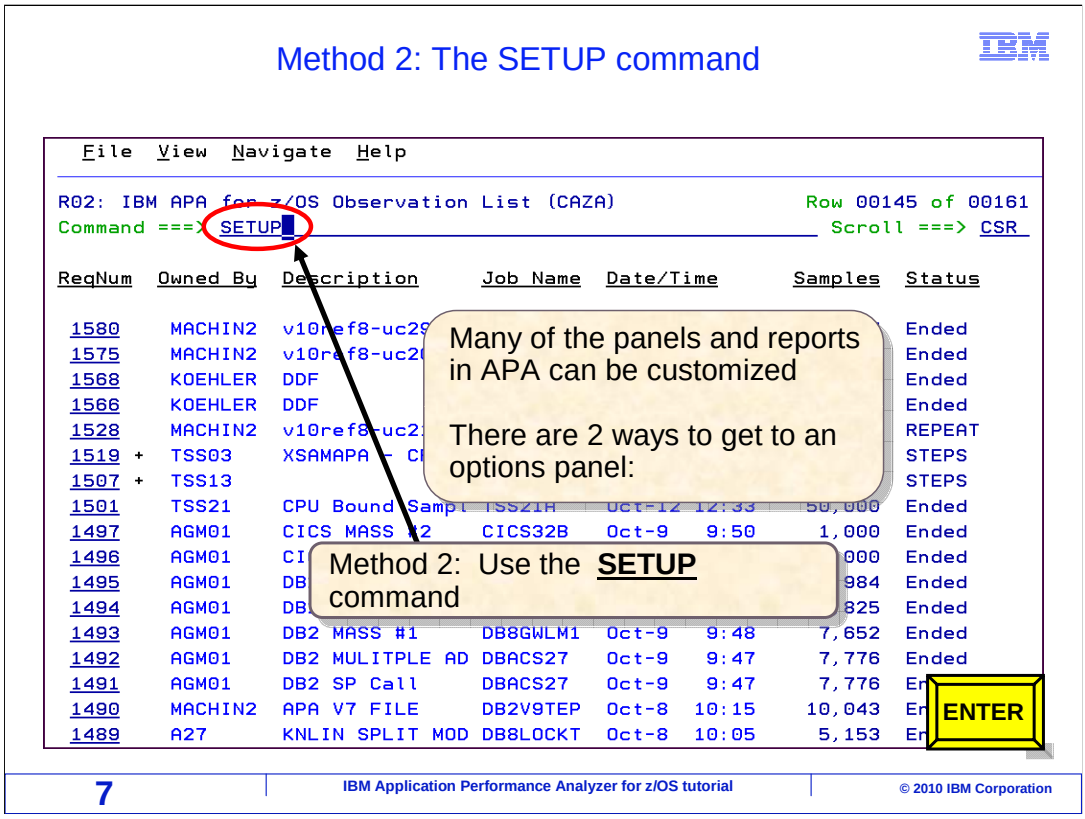
Be aware that a lot of the screens and reports in APA can be customized. Each report or screen can have its own set of options, and you can customize them on each screen's individual options panel. There are two ways to bring up a screen's options panel. The first method is to pull down the view menu. Just put your cursor on the word View at the top of the screen, and press Enter.



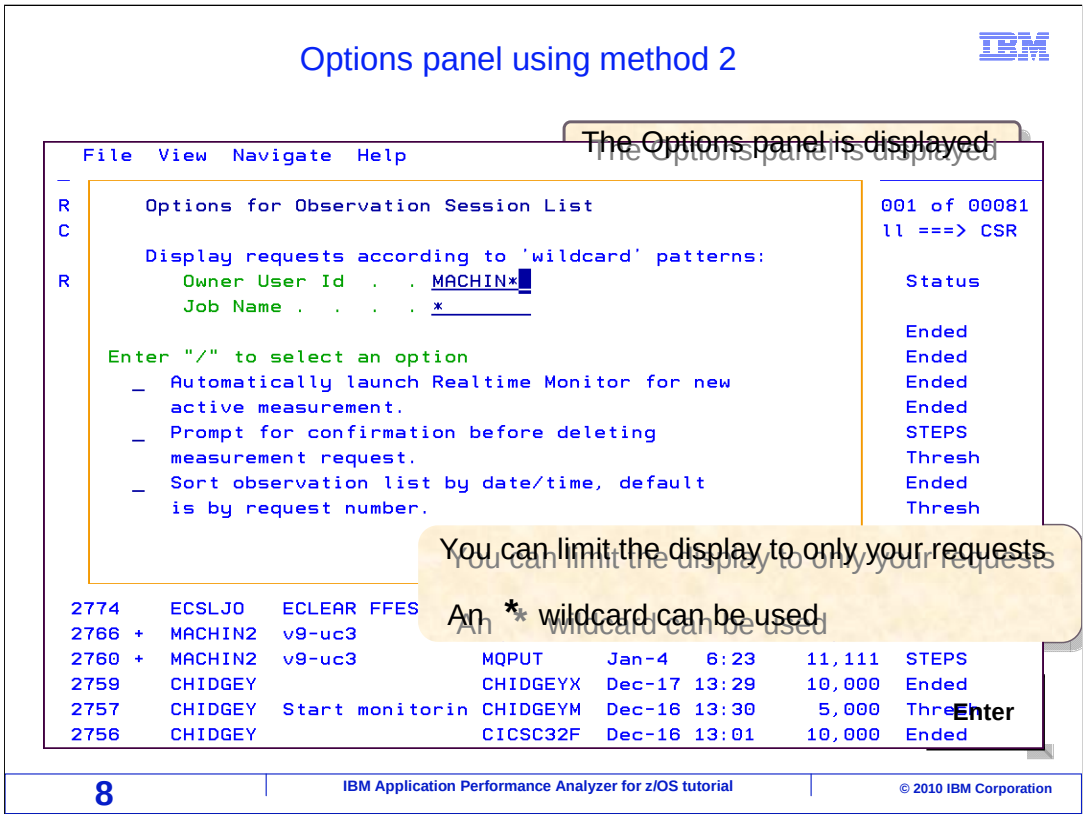
In the pull down menu, select the option for SETUP. For this screen, it is option one. Press Enter.



That displayed the setup panel for the current screen, the observation list. You have options here to filter the observations that are displayed. By default, there are asterisks in the “owner user ID” and “job name” options. That means that all observation requests are displayed in your list. You might prefer to limit your list, so you do not have to display everyone else's observations. For example, you might want to enter your TSO ID in the “owner user ID” option, so that only your requests are shown. PF3 to return.

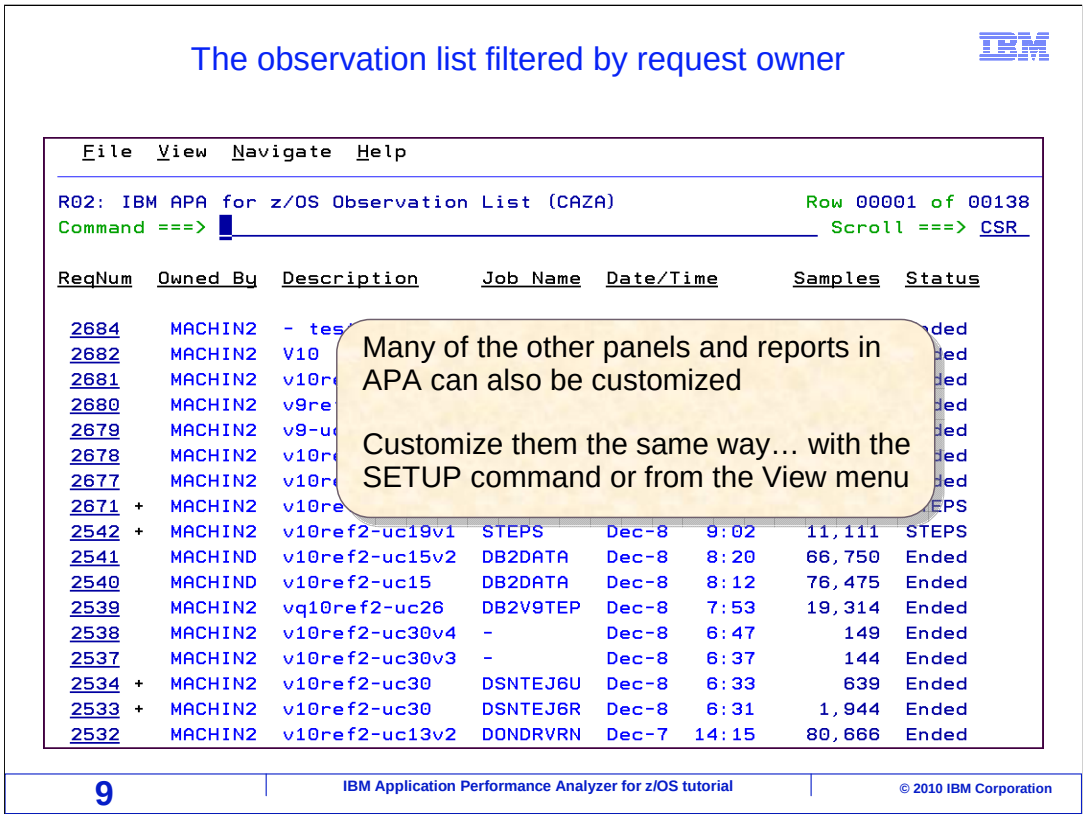


The other way to display the setup panel for a screen is with the SETUP command. Just type SETUP on the command line, and press Enter.

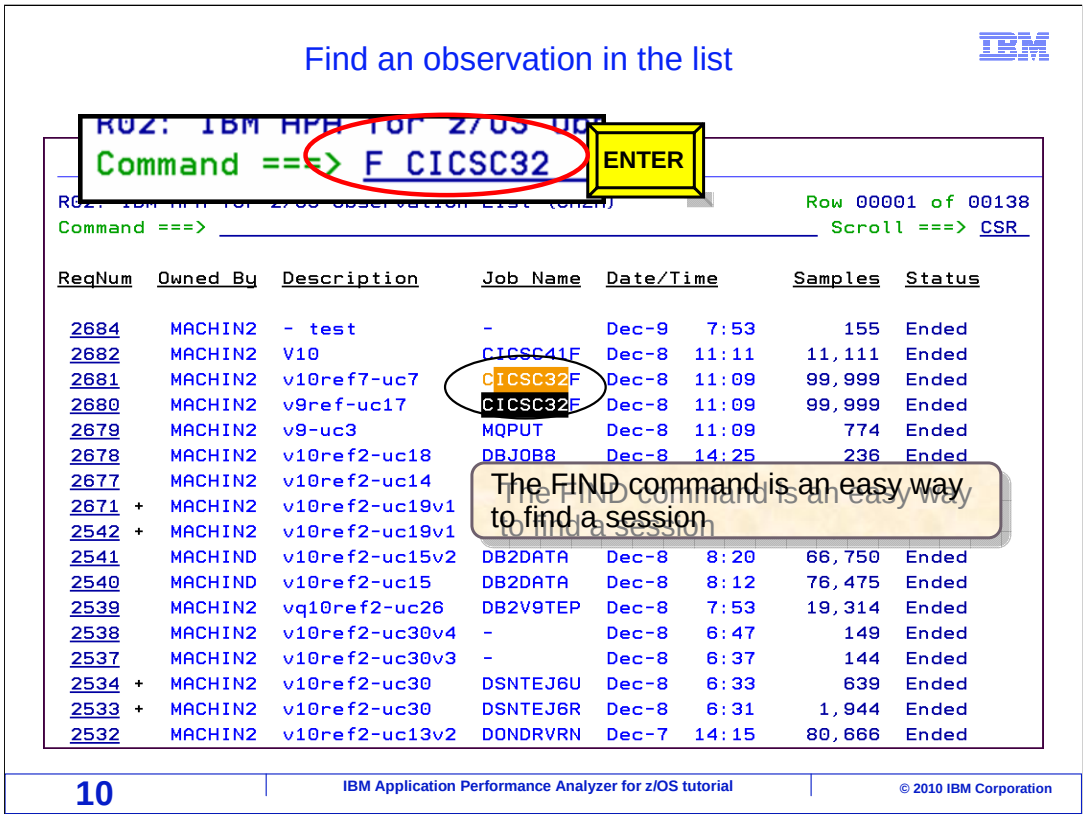


And that displayed the setup panel again.

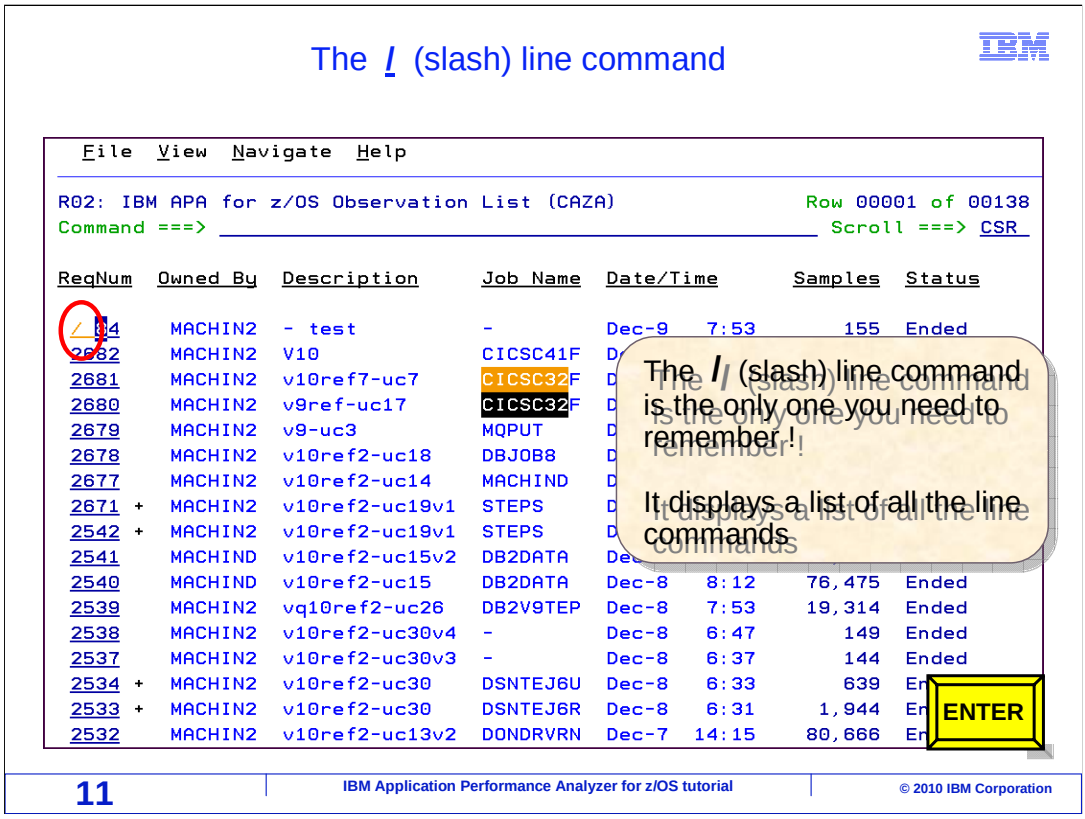
In this example, a filter is specified by typing the first few letters of the user ID followed by an asterisk in the "owner user ID" field. Then Enter is pressed.



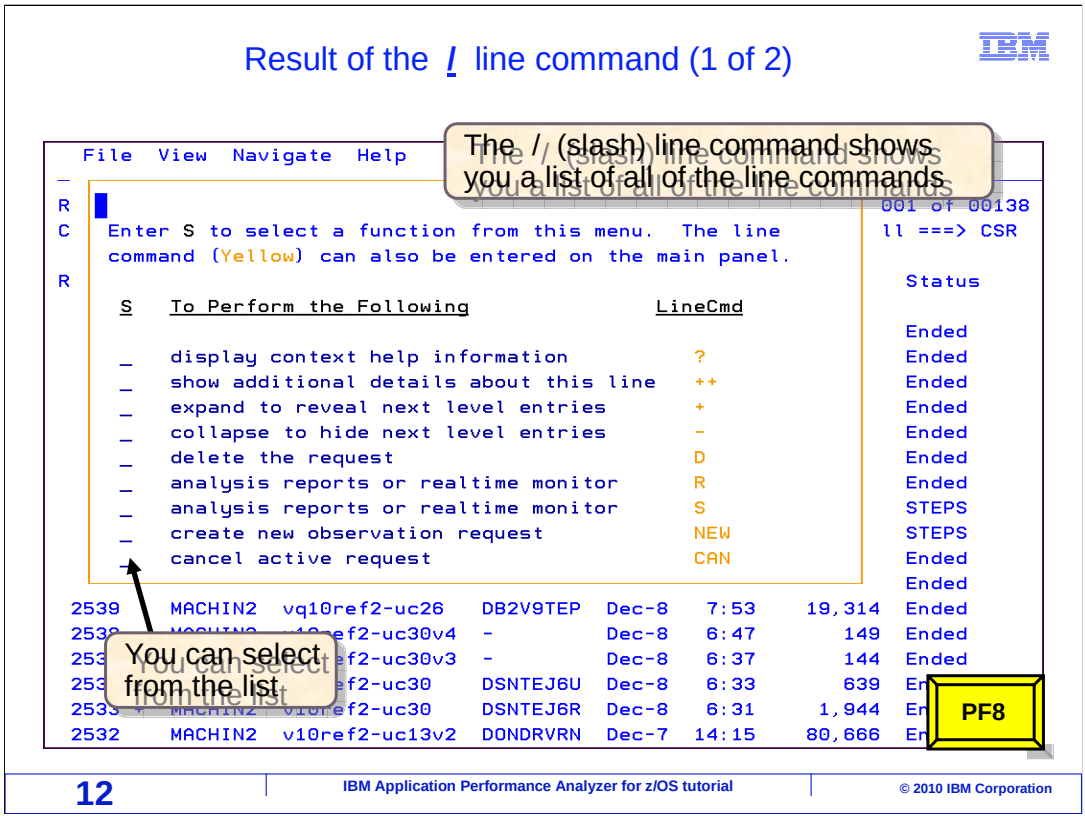
Now, the observation list is only showing requests where the owner ID matches the filter. Consider setting it up this way if there are so many observation requests on your system making it hard to find your own. The options that you specify are just for you, and they are permanent settings. Remember that a lot of the other panels and reports in APA can also be customized, not just the observation list. Just bring up the panel or report that you want to customize, and then use the SETUP command or select SETUP from the view menu.



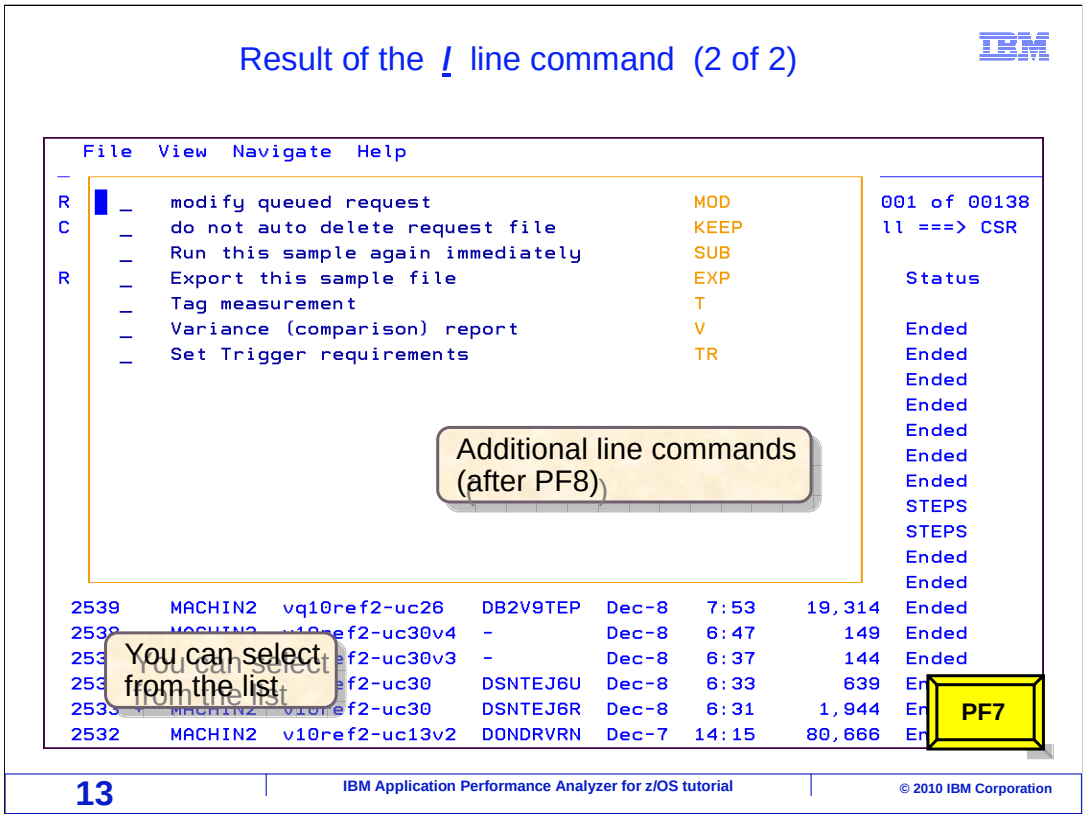
Of course, one easy way to find a request that you are looking for is with the “find” command. For example, here, just type “F space and a character search string”, and Enter. The character string is found in any of the columns on the panel. So remember, you can always use the find command if there are a lot of entries in the list.



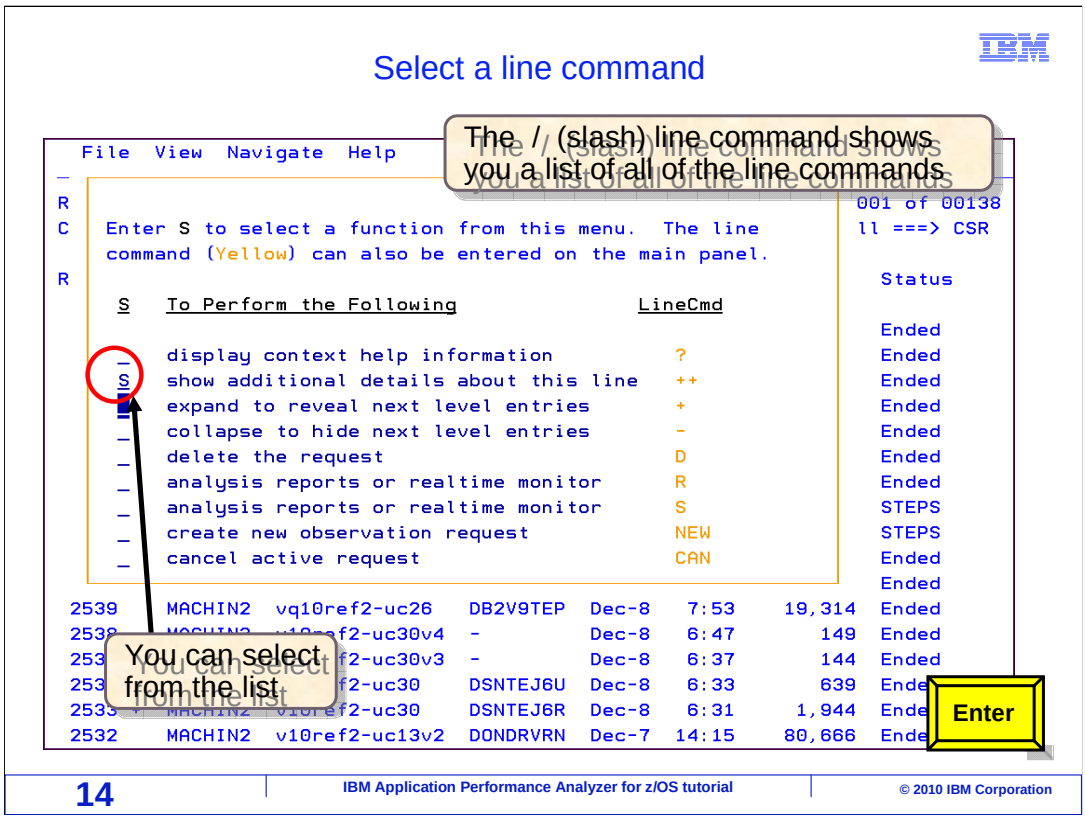
You can work with entries by typing line commands in the leftmost column. There are a lot of things you can do, and so there are a lot of line commands. The only line command that you really need to remember is the slash. It displays a list of all the line commands. Just type “slash” as a line command next to an entry, and press Enter.



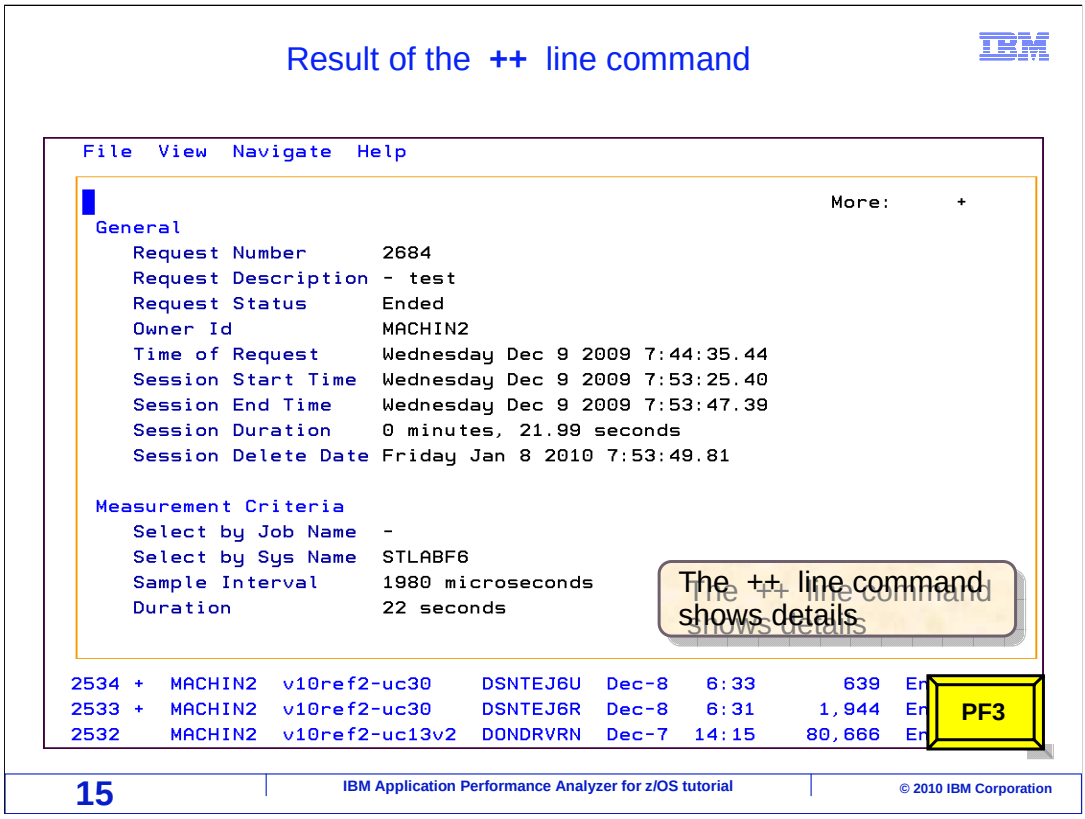
A pop-up window is displayed showing all of the line commands you can use for that entry, and you can select one from the list. Over on the right side, the actual line command is indicated that you can use instead of a “/”. For example, you can use a plus sign as a line command to expand an entry, or an “R” to view analysis reports or the real-time monitor. There are even a few more, just scroll down to display them by pressing PF8.



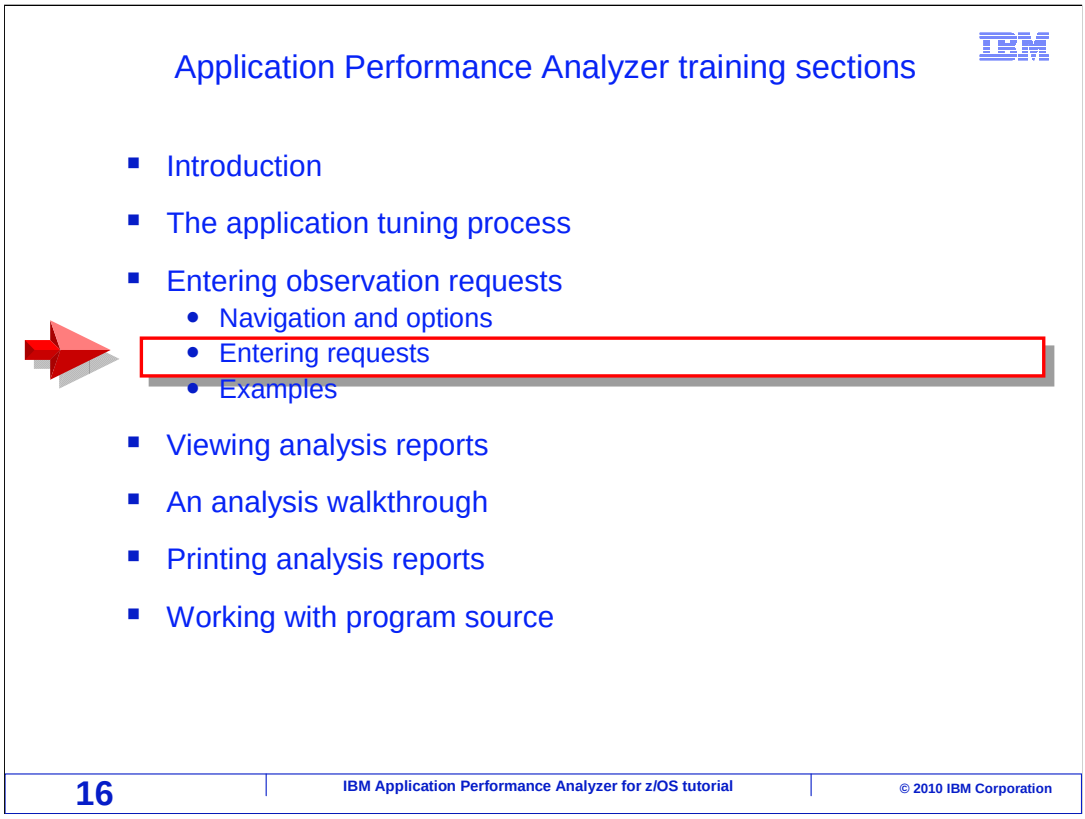
And here are the rest of the line commands that are available for this entry. Press PF7 to scroll back up.



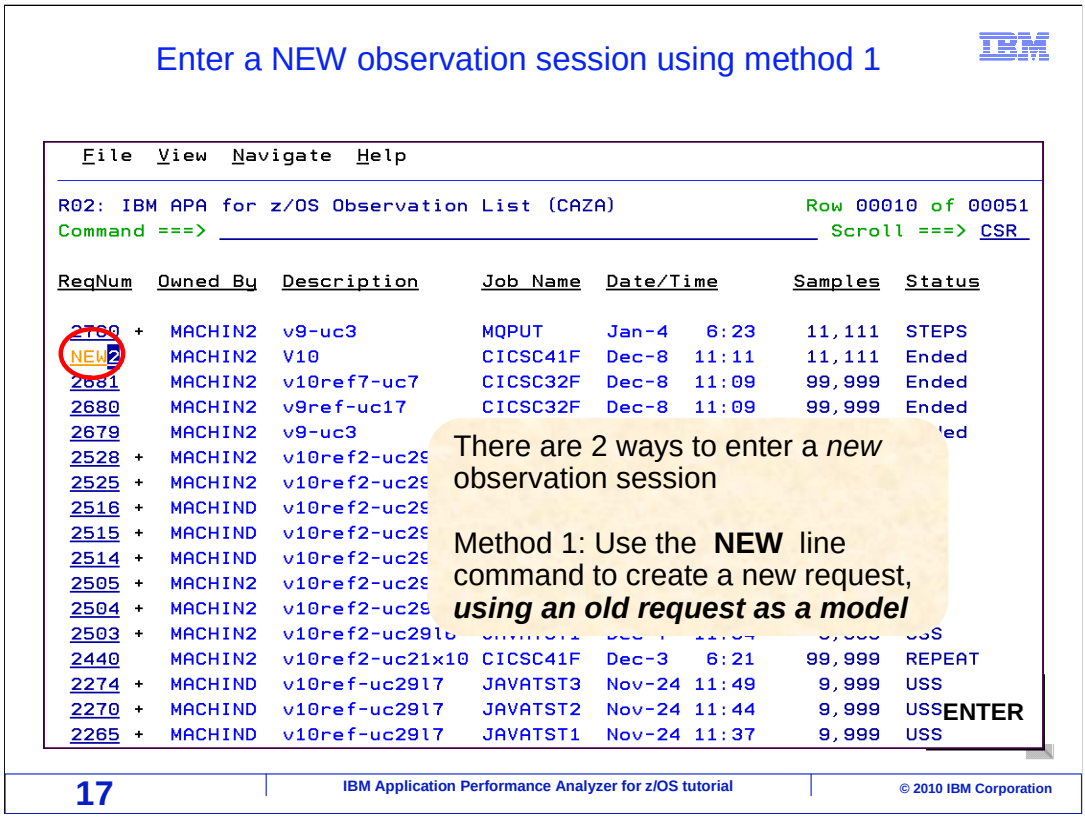
To select one of the line commands enter an “S” in the prefix area. Here, the “++” line command is selected to show additional details. Enter.



The “++” line command shows detailed information. When you use “++” on an observation request, as was done here, it shows you details about the request. Press PF3 to return.



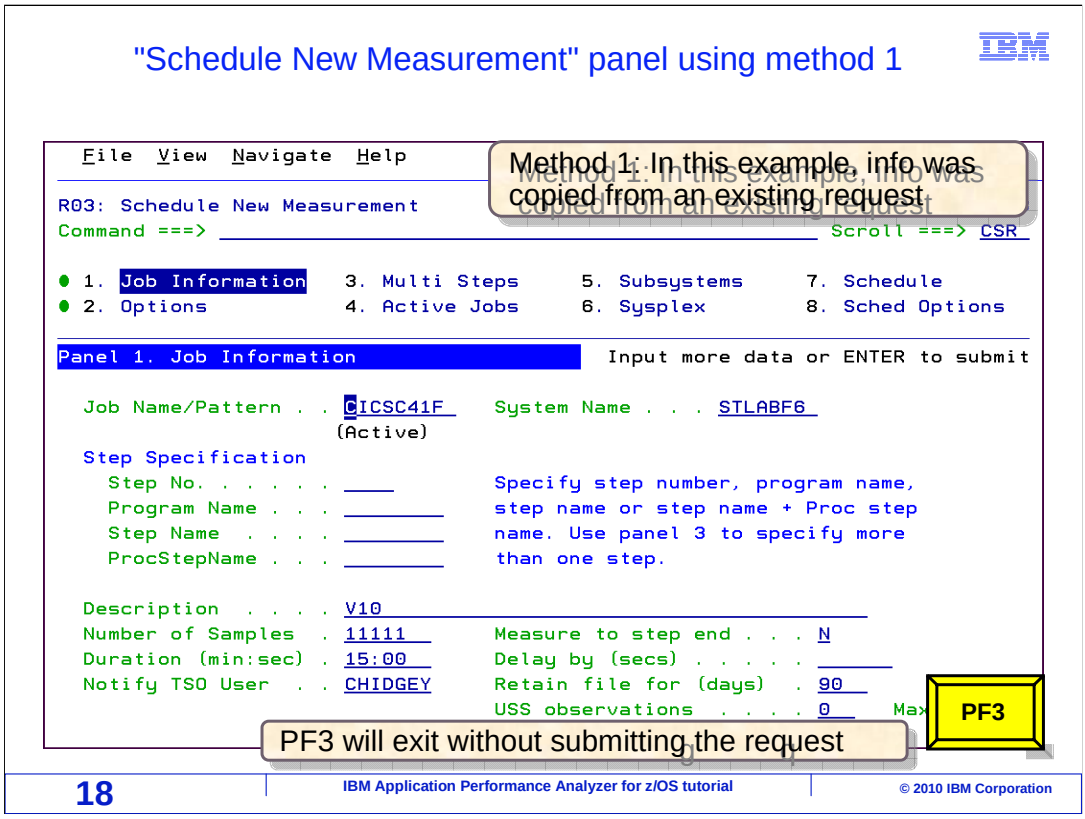
Next, you will explore the process of entering new observation requests.



On this screen, APA is showing a list of observation requests that have already been entered in the past. An “observation request” is a request from a user for APA to monitor an application.

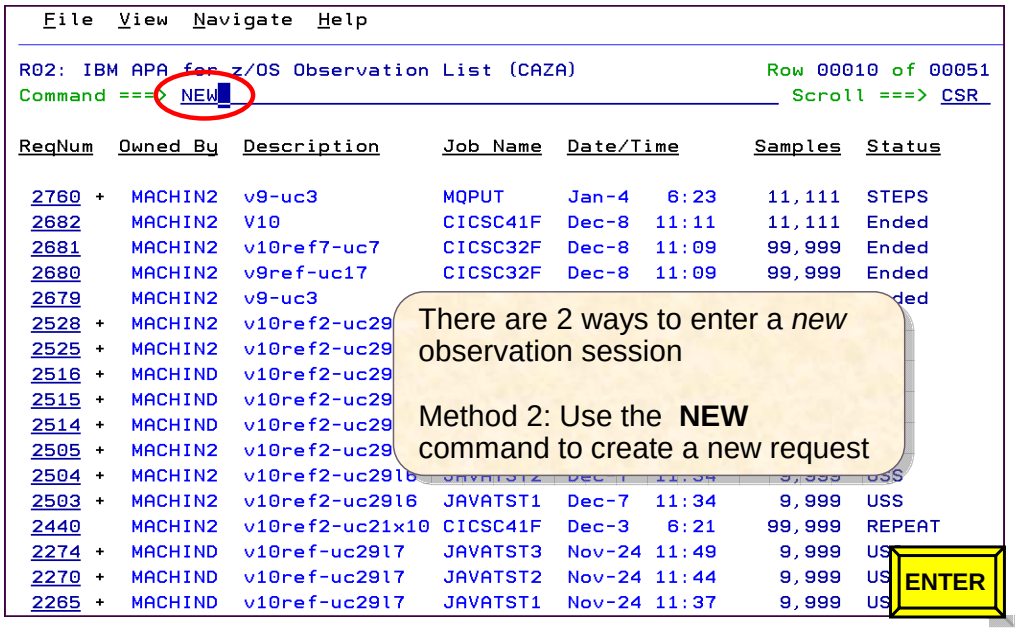
-

There are two ways to enter a new observation request, and they both use the command: “NEW”. If you have already entered an observation session in the past, you can use an existing one as a model for a new one. In this example, “NEW” is typed on the line command next to an existing request, and Enter is pressed.



This will display the “Schedule new measurement” panel where you can enter details about the application that you want to monitor, and specify how APA should perform its monitoring. This is the first way to enter a new request, using an existing one as a model with the “NEW” line command. In this example, the request is not going to be entered yet, so PF3 is pressed to return to the observation list.

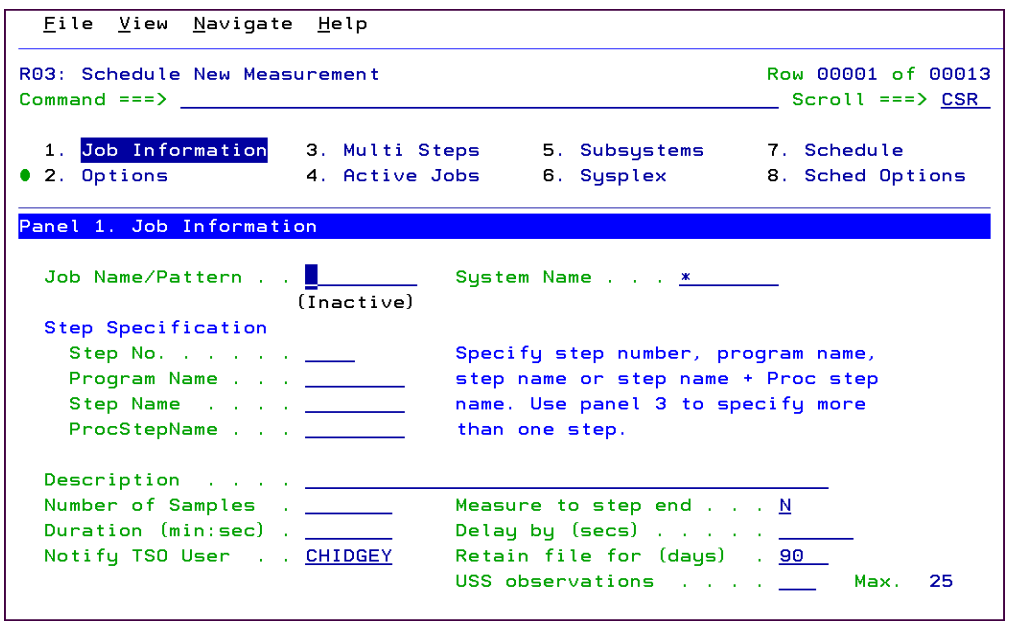
Enter a NEW observation session



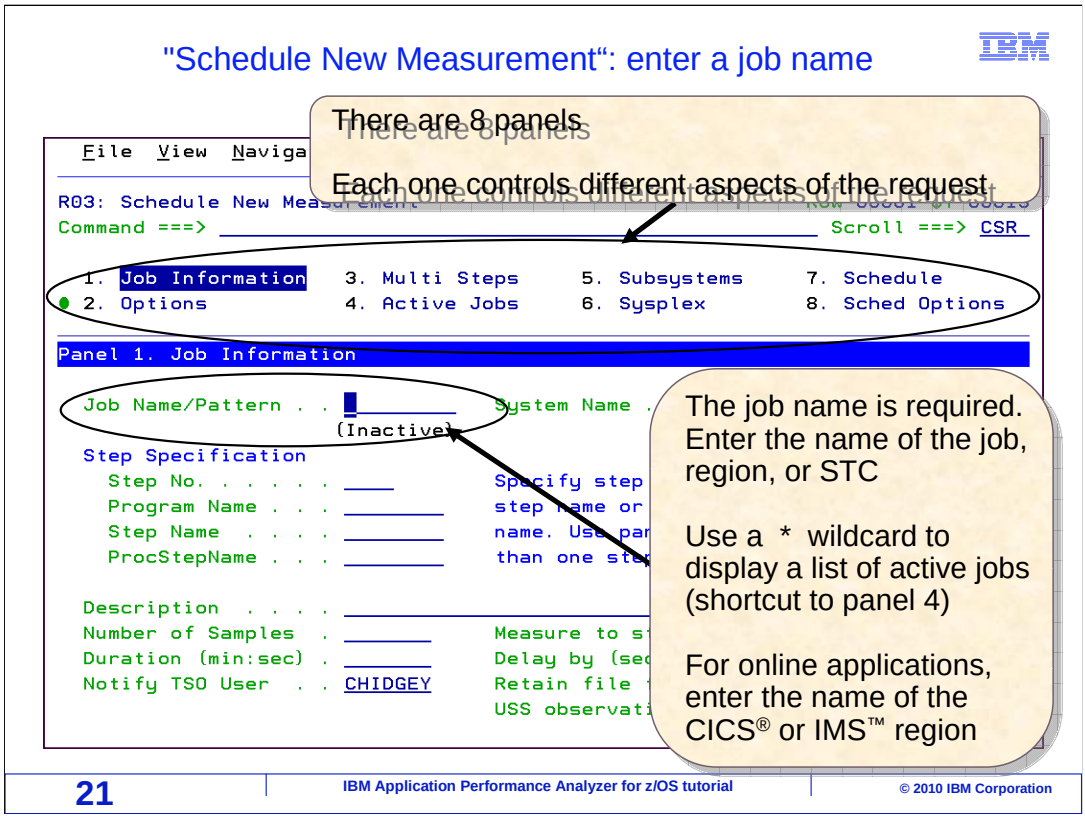
The second way to enter a new observation request is to use the “NEW” command.

In this example, “NEW” is typed on the command line, and enter is pressed.

"Schedule New Measurement" panel using method 2

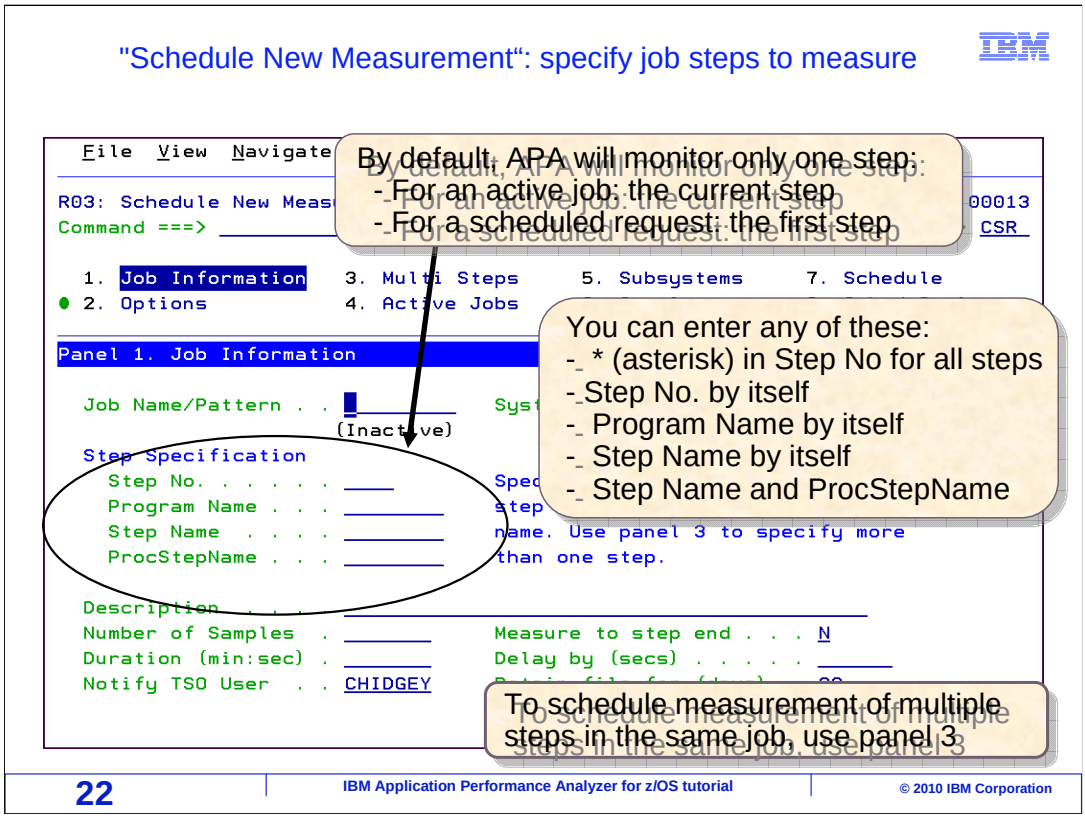


When you do it that way, the same panel is displayed. But this time, it is starting with default settings.



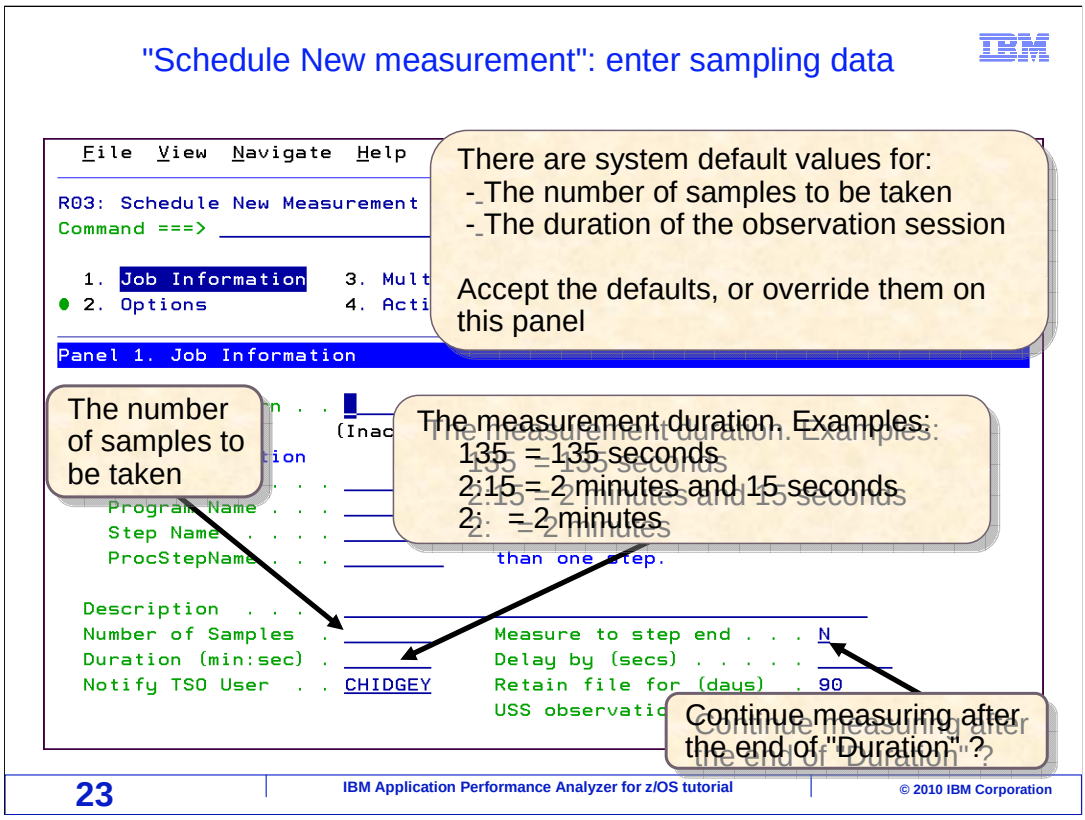
There are eight panels where you can enter information for a request. Each panel is listed near the top of the screen. For example, the first panel is “Job information, and the 2nd panel is “Options”. Right now, the “Job information” panel is displayed on the lower part of the screen. Notice that the words “Job information” on the top part of the screen are highlighted, indicating which panel is being displayed. You will always start with this panel, “Job information”.

When you enter a new observation request, a job name is required. Type in the name of the job, region, or started task that you want to monitor in the “job name/pattern” field. You can type in a partial job name with a wildcard. For example, if you type in ABC*, then you can obtain a list of running jobs that start with ABC. Just enter * into the job field to display a list of all jobs. For online applications, enter the name of the CICS or IMS region that you want to monitor.

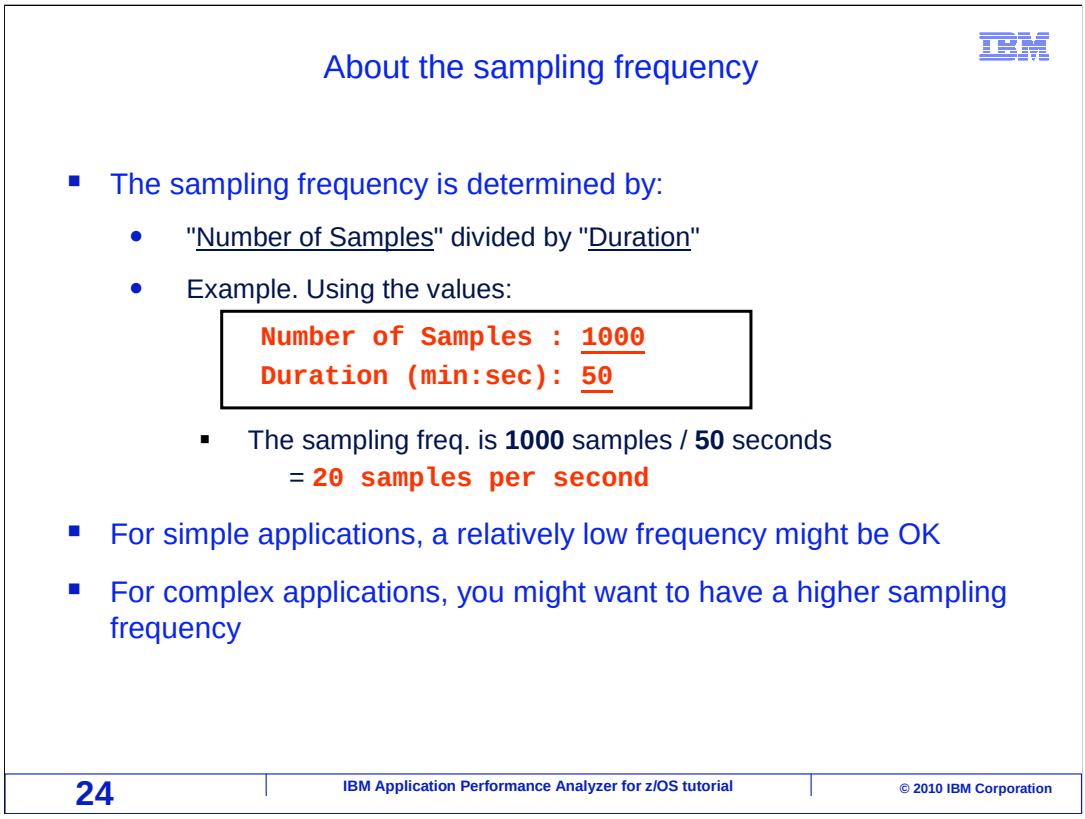


A little further down on the panel is the step specification area. By default, APA will monitor only one step. For an active job, it will monitor the step that is running at the time that you enter the request. If you schedule a request for a job that will run at some point in the future, the default is to monitor only the first step. To take the default, just leave all of the fields in the step specification area blank.

Or, you can enter any of these. Type an * in the step number field to monitor every step in the job, or enter a number to monitor any individual step number. Or you can enter a program name by itself in the program name field, or a step name by itself in the step name field, or a combination of step name and procstep name. There are more options for monitoring multiple steps in the same job on panel three, which you will see in a moment.



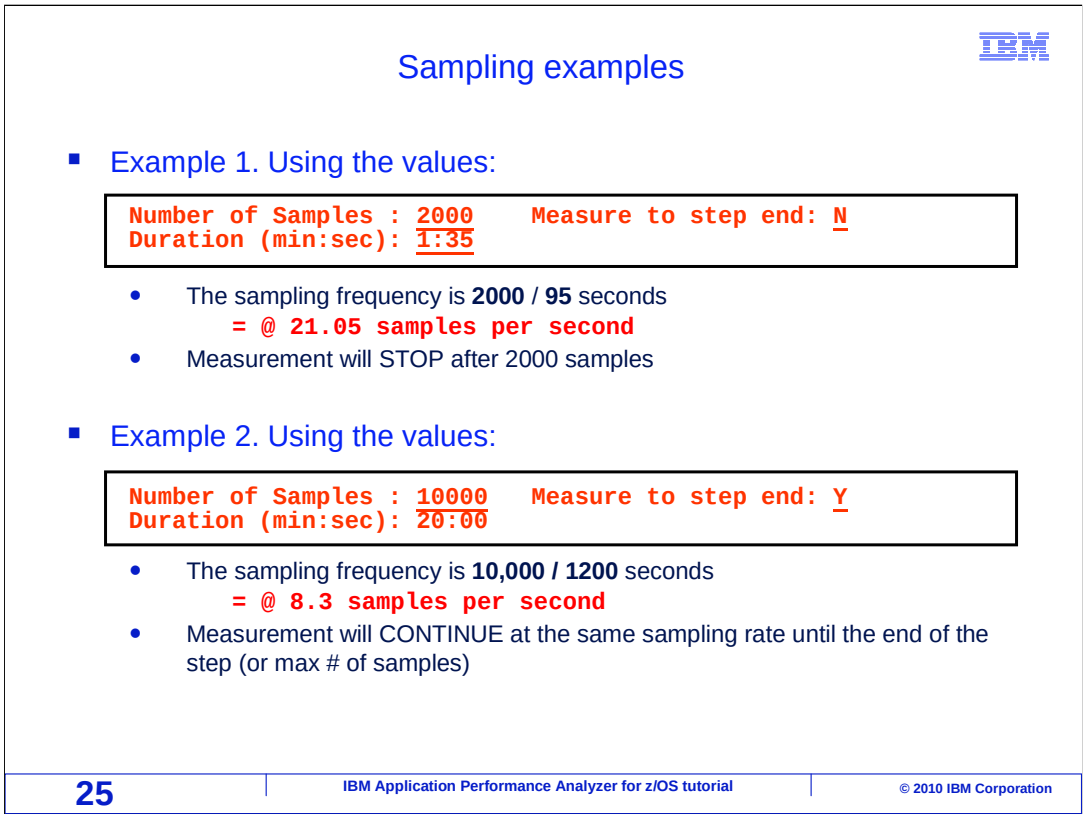
In the “Number of samples” field, specify the total number of samples that APA should snapshot during its monitoring session. Also specify the measurement duration. For example, enter the number 135 in the “Duration” field to monitor the application for a total of 135 seconds. Enter 2:15 to monitor for two minutes and 15 seconds, or 2: to monitor for a total of two minutes. For a typical application, you will only need APA to monitor the application for a few minutes. However, sometimes, you might want to continue monitoring until the job or step ends. To do that, type “Y” (for yes) in the “measure to step end” field.



Here is a little more detail about the sampling frequency. You control how often APA takes snapshot samples with the “Number of sample” and “Duration” fields. To determine the sampling frequency, divide the number of samples by the duration. For example, if you request 1000 samples and a duration of 50 seconds, then the sampling frequency is 20 samples per second, which is 1000 divided by 50.

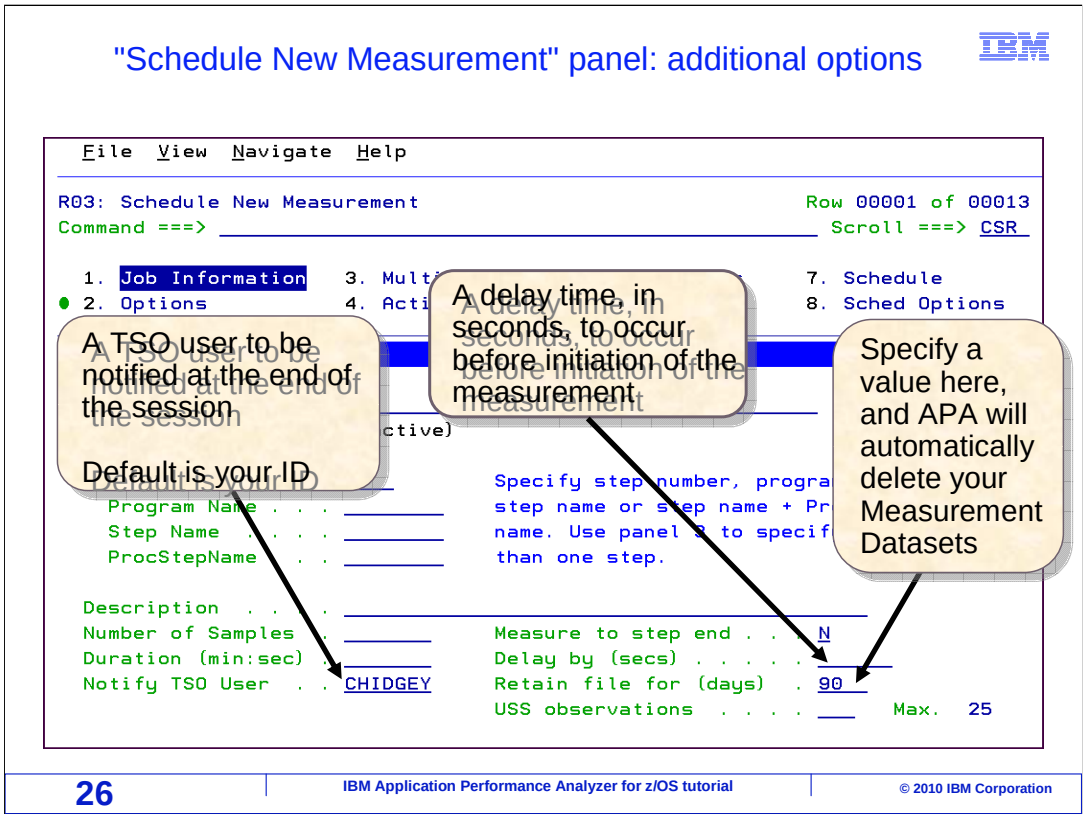
There are not any general rules for choosing how many samples to request. Keep in mind that APA is collecting statistical information about where your application is spending its time. So you will want to specify enough samples to get significant readings. For simple applications, where only a few programs are running, a relatively low sampling frequency might be okay. However, for complex applications with dozens or hundreds of programs interacting, you might need a higher sampling frequency.

Again, there really are not any general rules for what is right or wrong when it comes to the number of samples and the duration, since every application is different. However, if you are just looking for a broad brush recommendation, here is a place to start. For a typical batch application, try starting by specifying 10,000 samples, and a duration of one or two minutes. If that does not collect enough detailed data, you can always try again with a higher number of samples or a longer duration. Also as a general rule, for most applications, you will not need more than 100,000 samples. A number larger than that, most often will not provide better statistics.



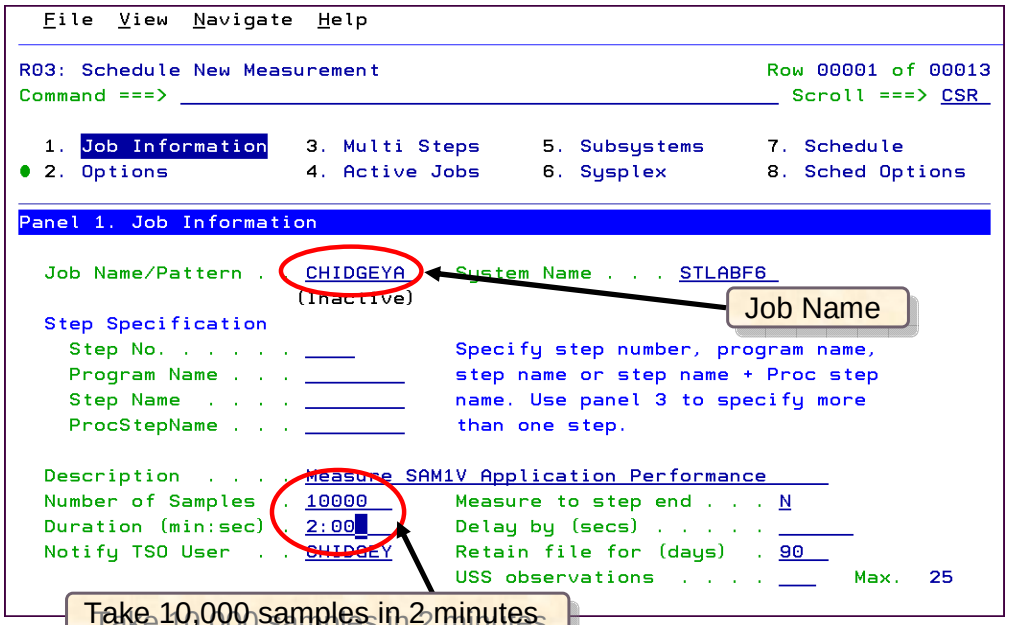
Here are a couple of examples for entering the number of samples and the duration. In the first example, 2000 samples is requested with a duration of one minute and 35 seconds. Notice that “N” (for No) was specified in the “Measure to step end” field. In this case, the sampling frequency is a little over 21 samples per second, which is 2000 divided by 95 seconds. After the 95 seconds is up, sampling will stop, and the measurement session is over.

In the second example, 10,000 samples is requested along with a duration of 20 minutes. The sampling frequency is about 8.3 samples per second, which is 10,000 samples divided by 20 minutes, or 1200 seconds. This time, “Y” (for Yes) is specified in the “measure to step end” field. Because of that ‘yes’, measurement will continue at the same sampling rate of 8.3 per second until the end of the step, or until the maximum number of samples allowed by APA is reached.

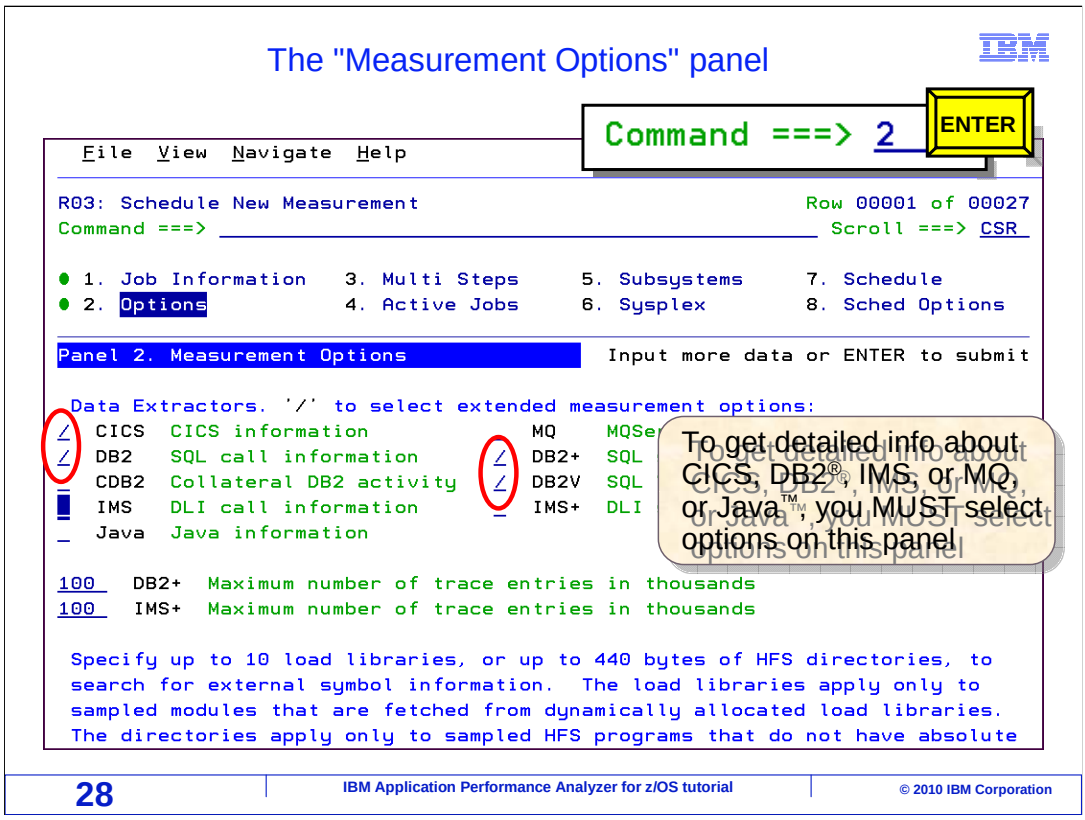


Back to the job information panel. You have a few other options here. By default, your TSO ID is specified in the “notify TSO user” field. That means that you are notified when APA completes its monitoring session. Blank it out if you do not want to be notified, or enter someone else's ID to have them notified instead. In the “Delay by” field, you can also enter a delay time, in seconds, that will elapse before APA begins taking samples. In the “Retain file” field, you can specify the number of days, after which APA will automatically delete the measurement data sets it used to collect its monitoring information. Keep in mind that even if you do not specify anything here, measurement data sets are deleted automatically if you delete the observation from the list.

"Schedule New Measurement" panel example



In this example, the name of a job to be monitored is entered. Entries were also made on the panel to collect a total of 10,000 samples over a duration of two minutes.



So far, option one: Job Information panel has been covered. There are actually eight panels where you can specify your observation request. To get to any of the eight panels, just type the panel number on the command line and Enter. In this example, the number two is typed on the command line and Enter is pressed. Now panel number two, the Options panel, is displayed.

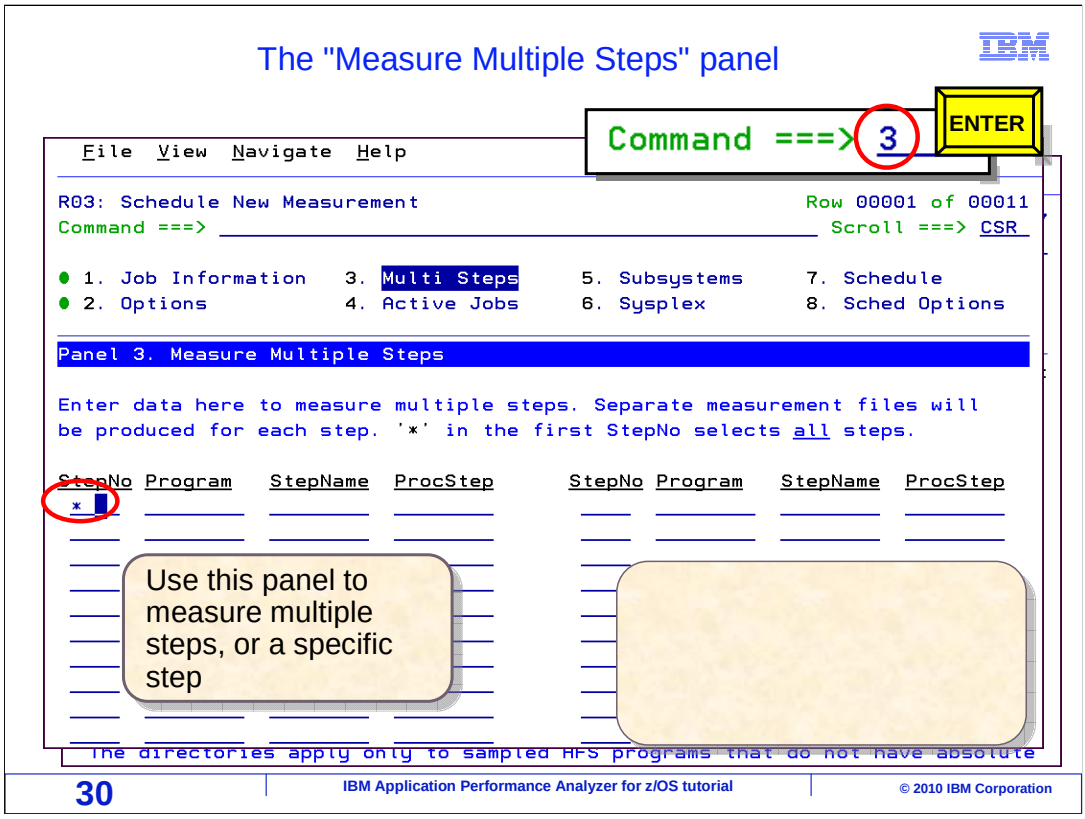
On this panel, you tell APA to collect detailed information about CICS, DB2, IMS, Java or MQSeries®. It is very important that you know that APA will not collect information about any of these subsystems by default. So for example, if you monitor a CICS application that accesses DB2 databases, by default you are not able to capture any details about CICS transactions or SQL statements. Do not forget to specify any of the data extractors that you need on this panel.

Notice that there are several levels of data extractors for DB2 and IMS. As a general rule, if your application uses DB2 or IMS, then you should turn on all of the extractors for DB2 or IMS. By doing that, you are asking APA to do a little more work, but you are rewarded with a lot more in-depth information about your application. You might be tempted to turn on all of the extractors for every application. In practice you probably will not notice an excessive amount of extra monitoring overhead. But of course it is best to only request the extractors that your application really needs.

The "Measurement Options" panel data extractors

Data extractor:	Collects:
CICS	Transaction and EXEC CICS statement activity
DB2	Basic SQL statement activity
DB2+	Exact call counts, SQL service and CPU time
DB2V	SQL host variable names
CDB2	Collateral DB2 Activity
IMS	Basic IMS call activity
IMS+	Exact call counts, IMS service and CPU time
MQ	MQSeries queue activity
Java	Java program information

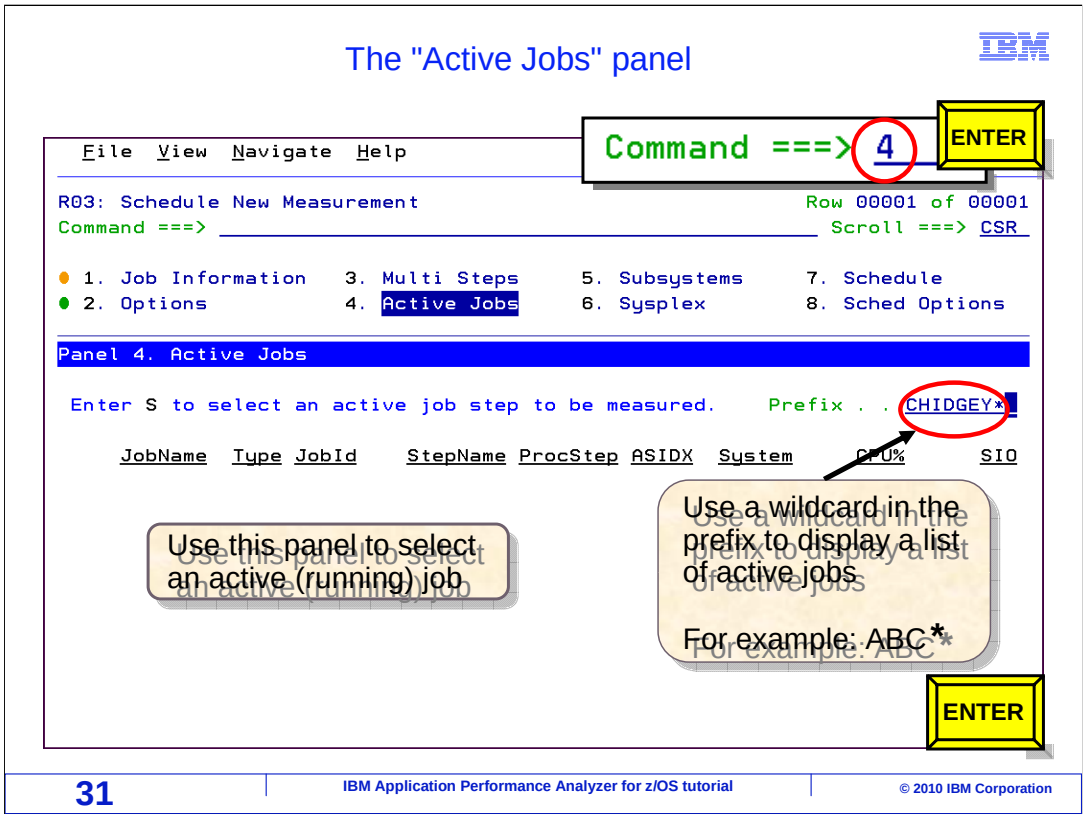
If panel two on your system does not have all of the data extractors that is indicated on this slide, that might be because the person who installed APA did not enable them. If you are missing data extractors on panel two, consider calling your systems programmer to ask them to enable all of the extractors.



To get to the third panel, “Multi-steps” Type three on the command line and press Enter. Remember that on panel one, you can specify a single step to monitor, or you can request all steps with an *. Here on panel three, you have a lot more control over which steps are monitored. If, for example, you want to monitor the 4th, 5th, and 10th steps of a job, you can do that here. On each line individually, you can enter a step number by itself, a program name by itself, a step name by itself, or a combination of step name and procstep name.

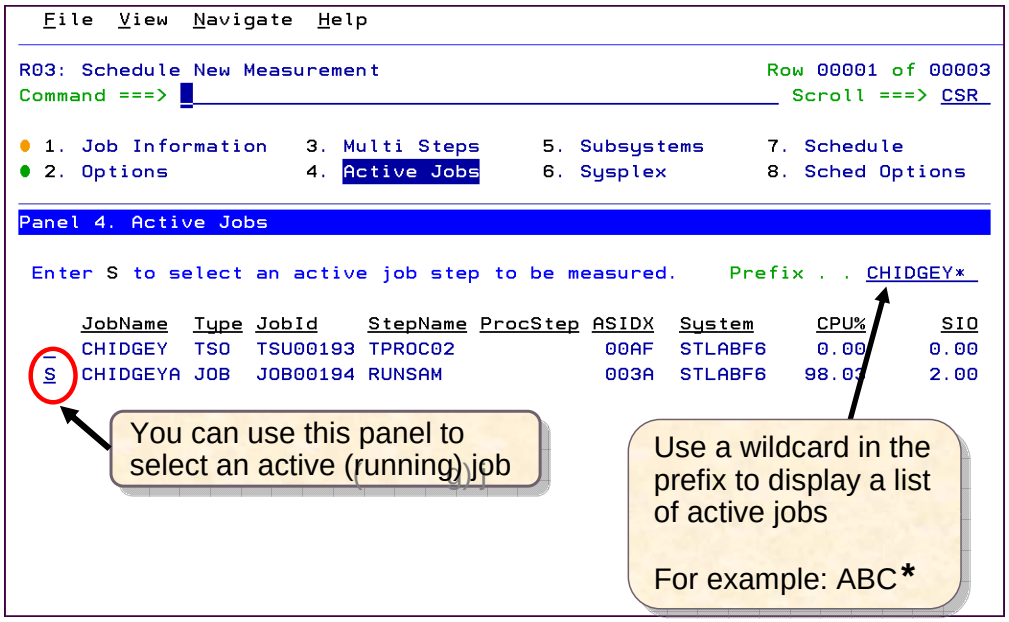
-

In this example, an * is specified in the first “StepNo” field, so that all of the steps in the job are monitored.



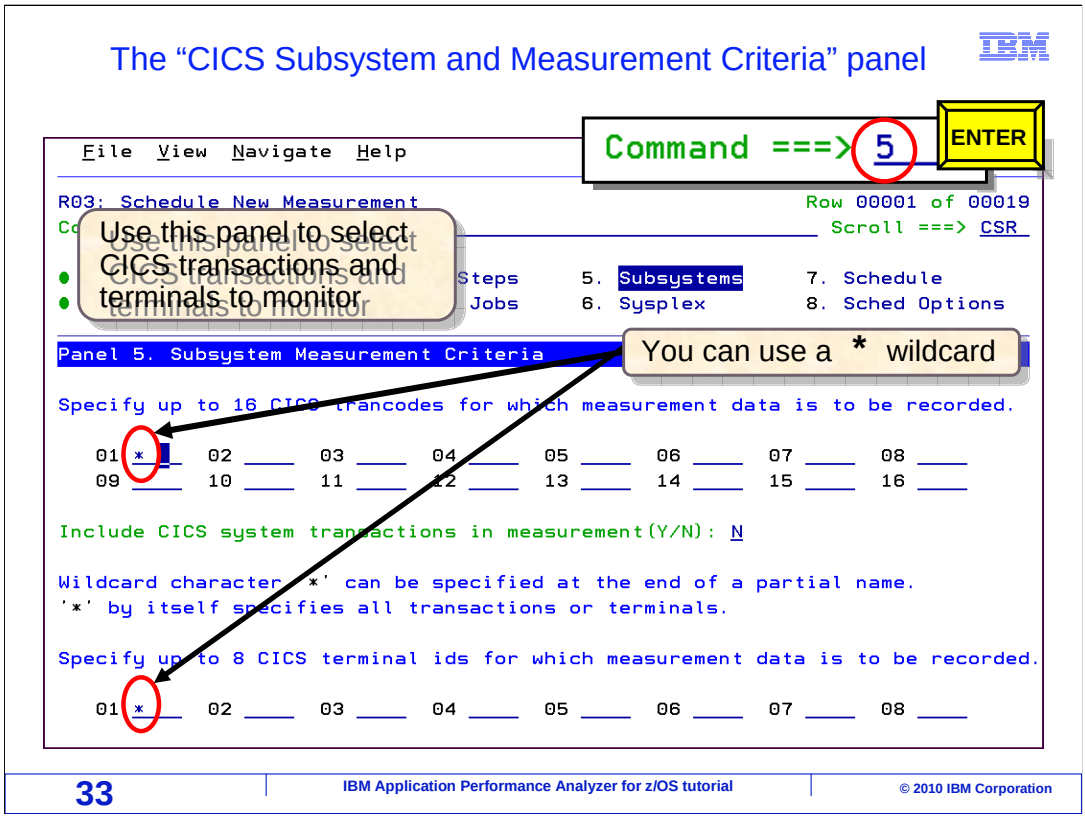
Here is panel number four: “Active jobs”. To get here, type the number four on the command line, and press Enter. This panel displays a list of jobs that are running right now, and you can select a job in the list to monitor. To get a list of jobs, first enter a job name mask in the prefix field. Type in the first few letters of a job name followed by an asterisk and press Enter.

The "Active Jobs" panel after using a wildcard

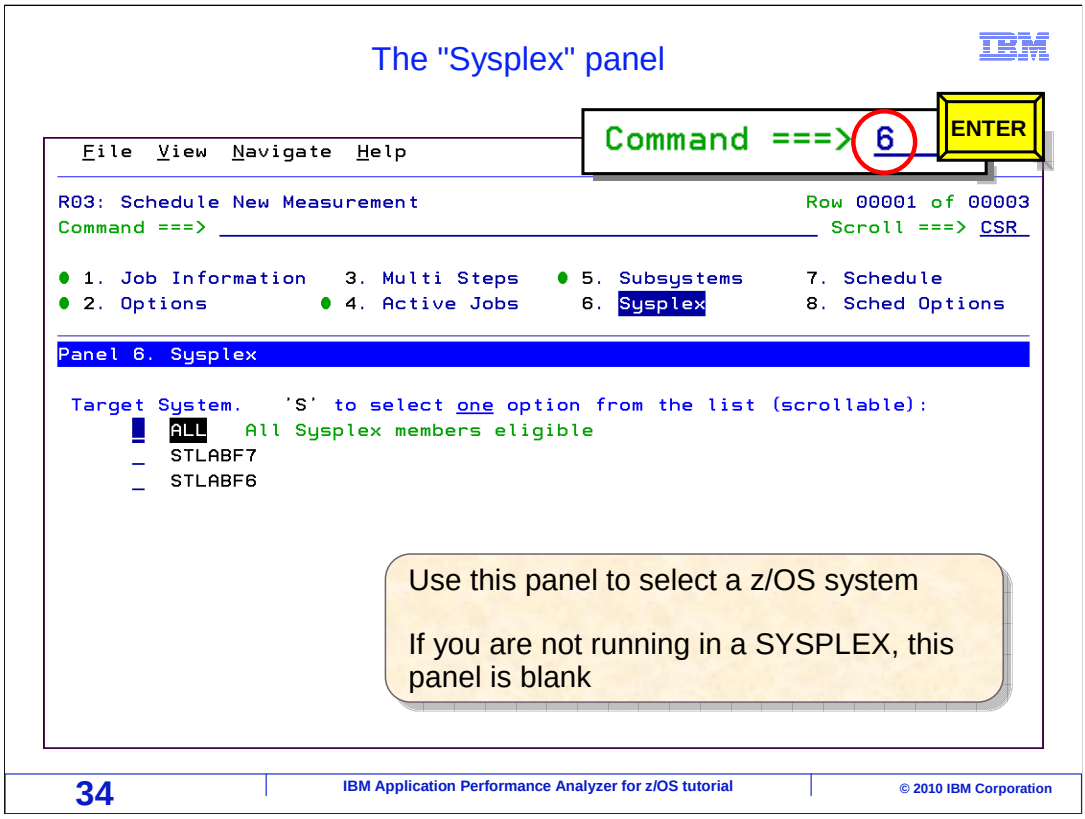


Now a list of jobs that match the job name mask is displayed.

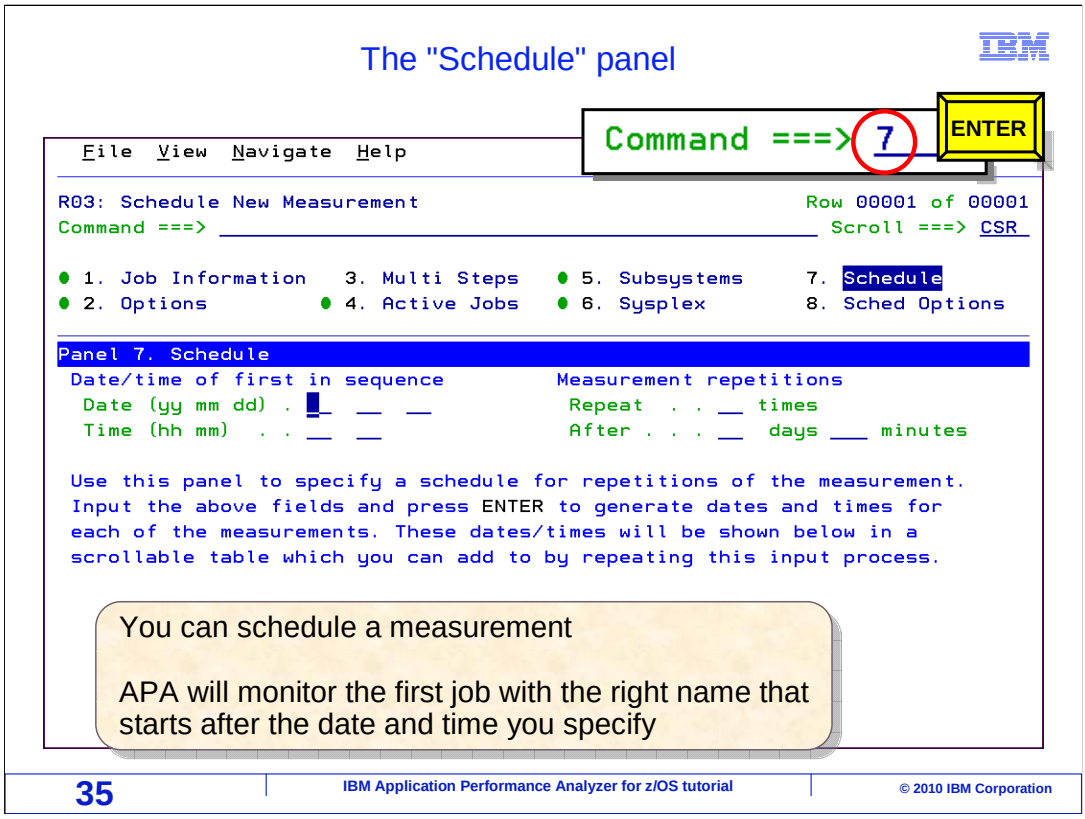
You can select a job to monitor by a typing an “S” (for Select) line command next to the job you are interested in.



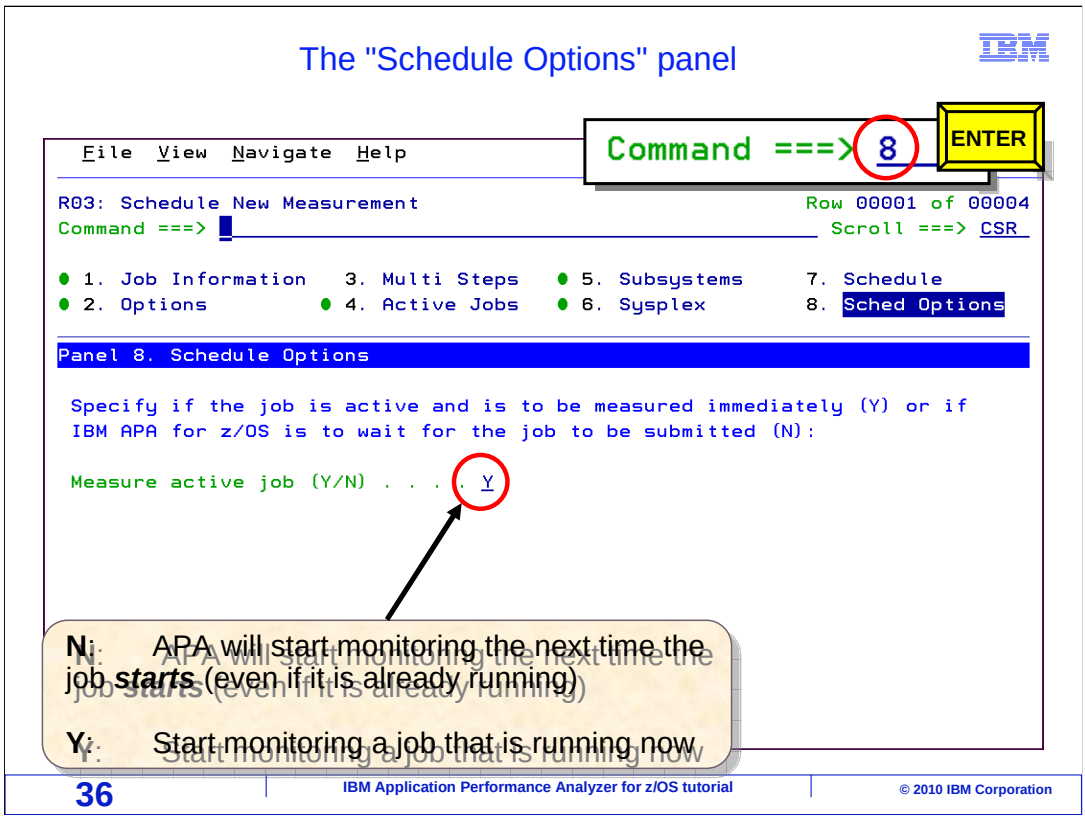
This is panel number five: CICS Options. Of course, you only use this panel when you are monitoring CICS applications. You can use it to limit which CICS transactions and which CICS terminals are monitored. If the CICS data extractor is on, then by default, all CICS transaction codes and all CICS terminals are monitored. If you are working with an application that is running in a CICS region with an extremely high transaction volume, you might find it handy to monitor only specific transactions and terminals. However, a lot of people prefer to always monitor all transactions and terminals. Even when all data is collected, it will still be very easy to look at specific transactions when you are viewing APA reports.



Here is panel six: Sysplex. You can use this panel if the job or region that you want to monitor is running on a different system from where you are logged on to TSO. A list of z/OS systems on your Sysplex is shown, and you can select the z/OS system with an “S” (for Select) line command. If you are not running on a Sysplex system, then this panel is disabled.



Here is the Schedule panel, number seven. Use this panel to schedule observation sessions that you want to add at some time in the future. More about scheduling observation sessions is covered a little later.



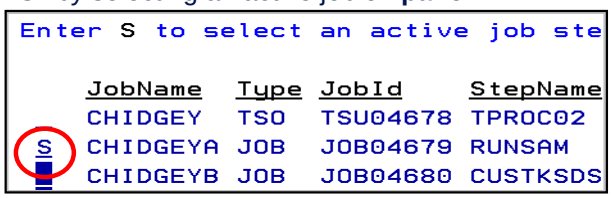
Here is the last panel, scheduling options, number eight. On this one, you specify an option that controls when APA starts its monitoring sessions. It is very important that you understand this option. Because it controls when APA monitors an application, and when it does not. Setting this option incorrectly can prevent APA from monitoring your application. It all has to do with whether the job you want to monitor is already running, or if it is not running now it is going to start later.

In the “Measure active job” field, specify “Y” (for Yes) if the job you want to monitor is already running now. When you enter the observation request, then APA will immediately begin its monitoring session on the job. If you specify “N” (for No), you are telling APA to start monitoring the job the next time that it starts. Be very careful about this, because if you specify “N” (for No), APA will not monitor your job if it is running right now. It will wait until the next time a job by the same name starts.

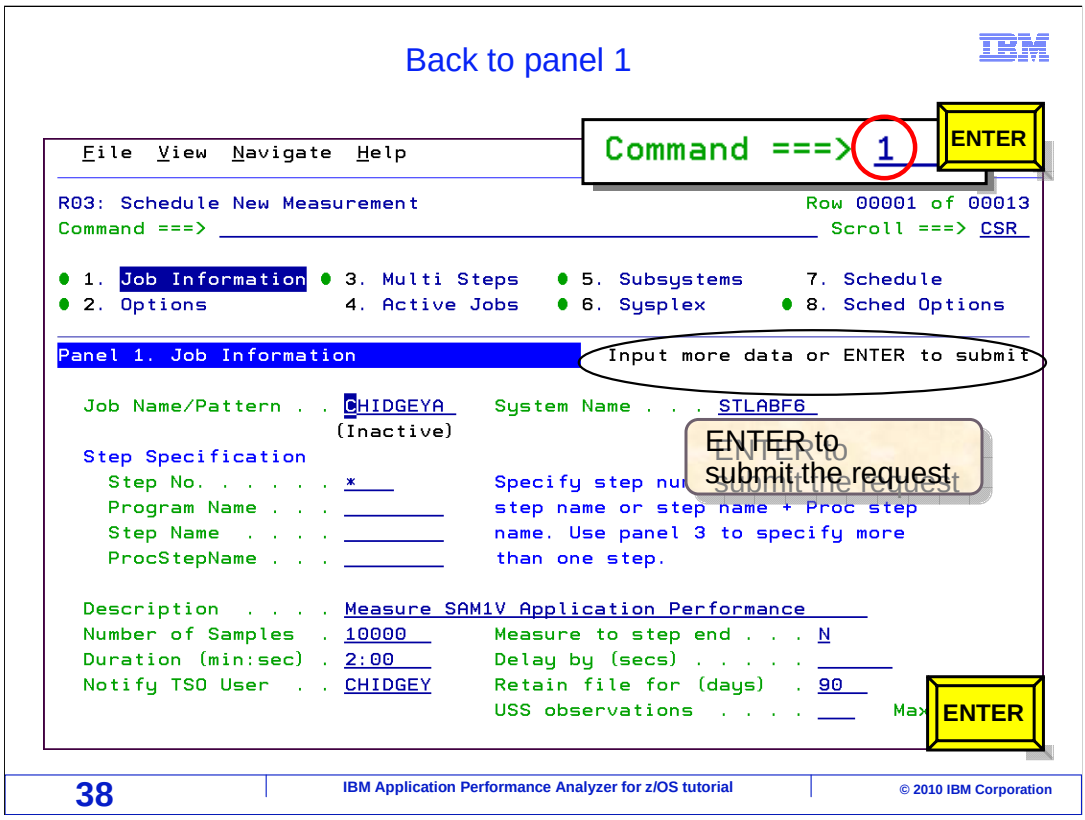
About active versus scheduled jobs

- APA is notified when jobs ***START***
  - By default, APA will initiate an observation session only when a job starts
- To monitor an ***active*** job, you ***MUST*** tell APA that the job is already running:
  - On **panel 8**:

  - **Or** by selecting an active job on **panel 4**:



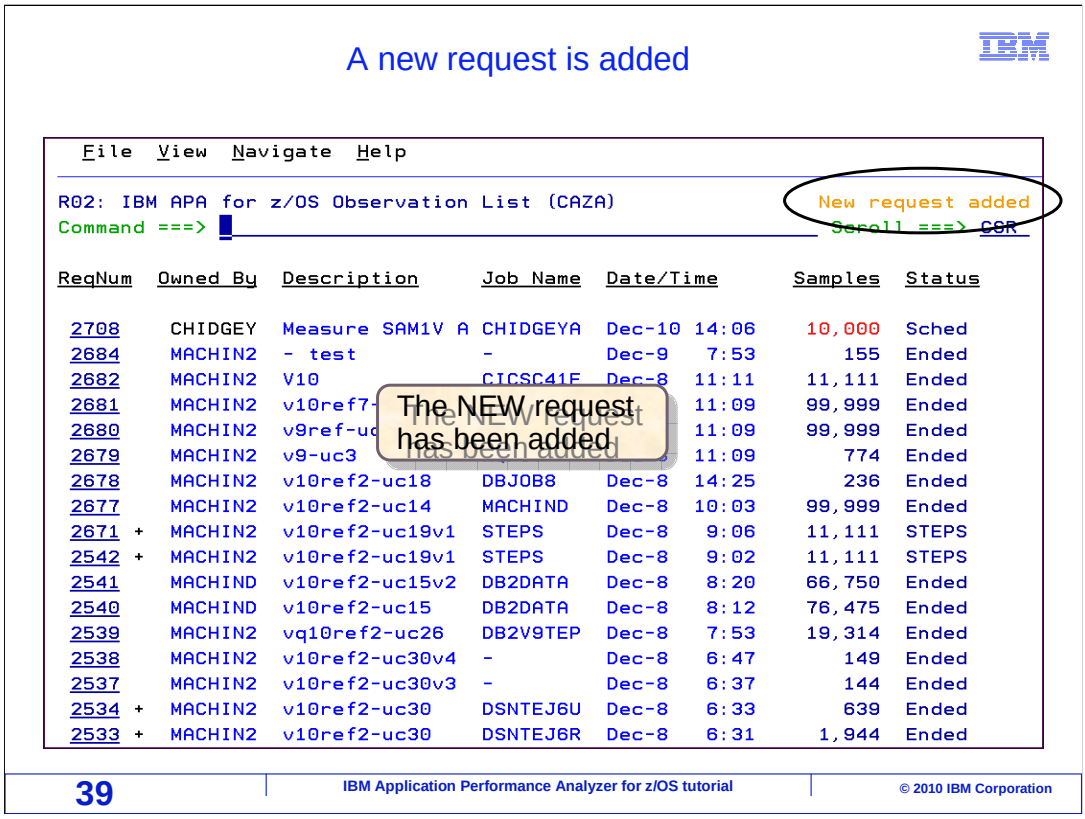
When you enter an observation request, you enter it for either an active job or a scheduled job. APA is notified when jobs start. By default, APA will initiate its monitoring only when a job starts. If you want to monitor an active job, a job that is running right now, you have to tell APA that the job is already running. There are two ways to do that. On panel eight, which you just saw, you specify “Y” (for Yes) in the “measure active job” field. Or, you can select an active job on panel four, the panel that displays a list of running jobs and regions.



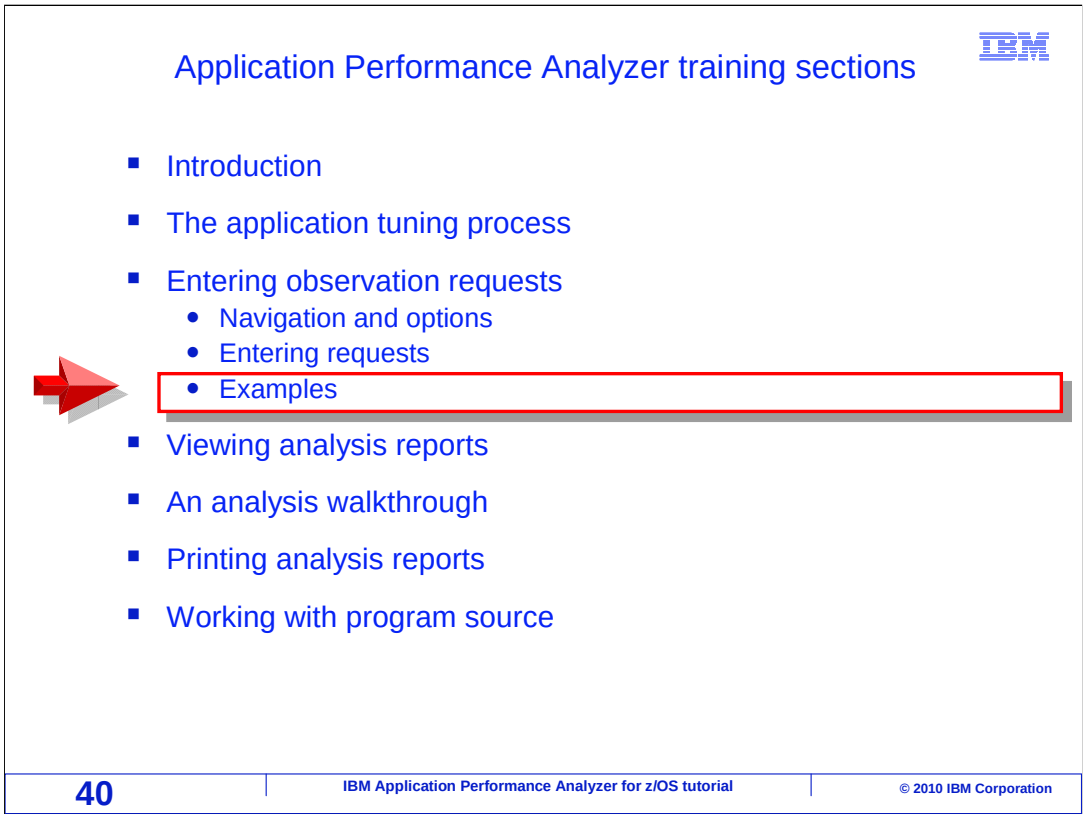
At this point, all of the options panels you can use when you enter a new observation request have been covered. Of course, for a typical request, you will only need to use one or two panels. But it is good to understand your options.

Now back to the first panel, “job information” . You get there by typing one on the command line, and press Enter. After you have specified all of the data for your request, just leave the command line blank and hit Enter again. You will get the message that is displayed here. “Input more data or ENTER to submit”. When this message is displayed, APA is ready to accept your new observation request. It is also a warning. Do not hit Enter now unless you mean it. In this example, the request is ready to be entered for the new observation request, so Enter is pressed.

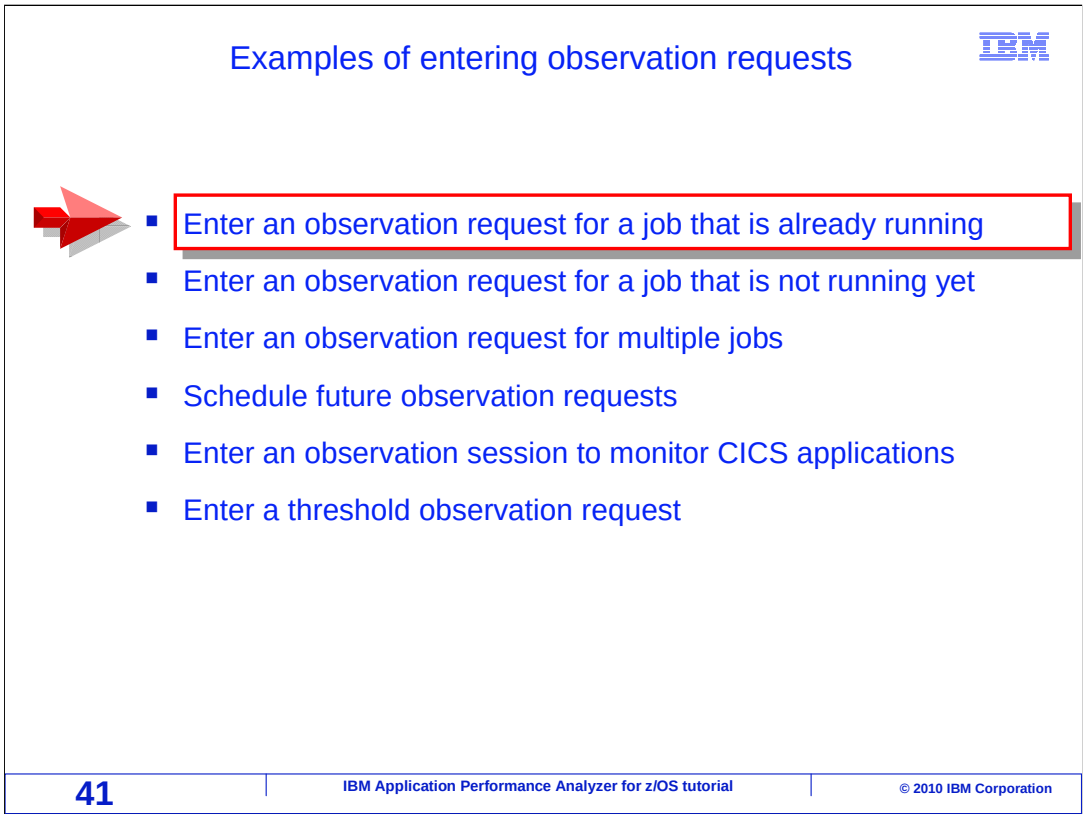
A new request is added



The new request was added, and it is displayed at the top of the list. Also, notice the message: “new request added”.



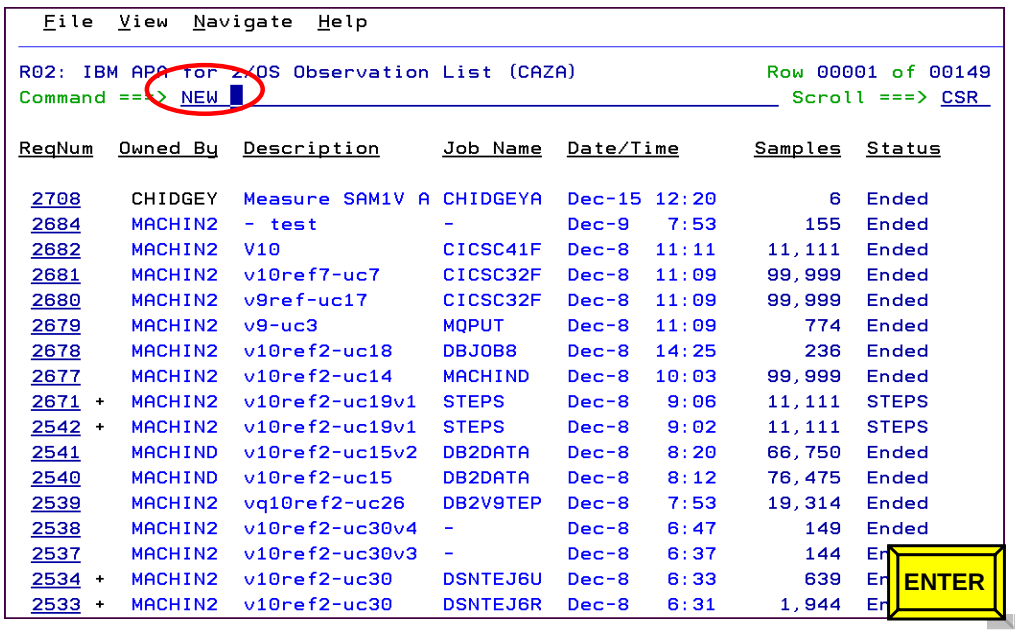
Next, you are presented with a few examples of how to enter new observation sessions.



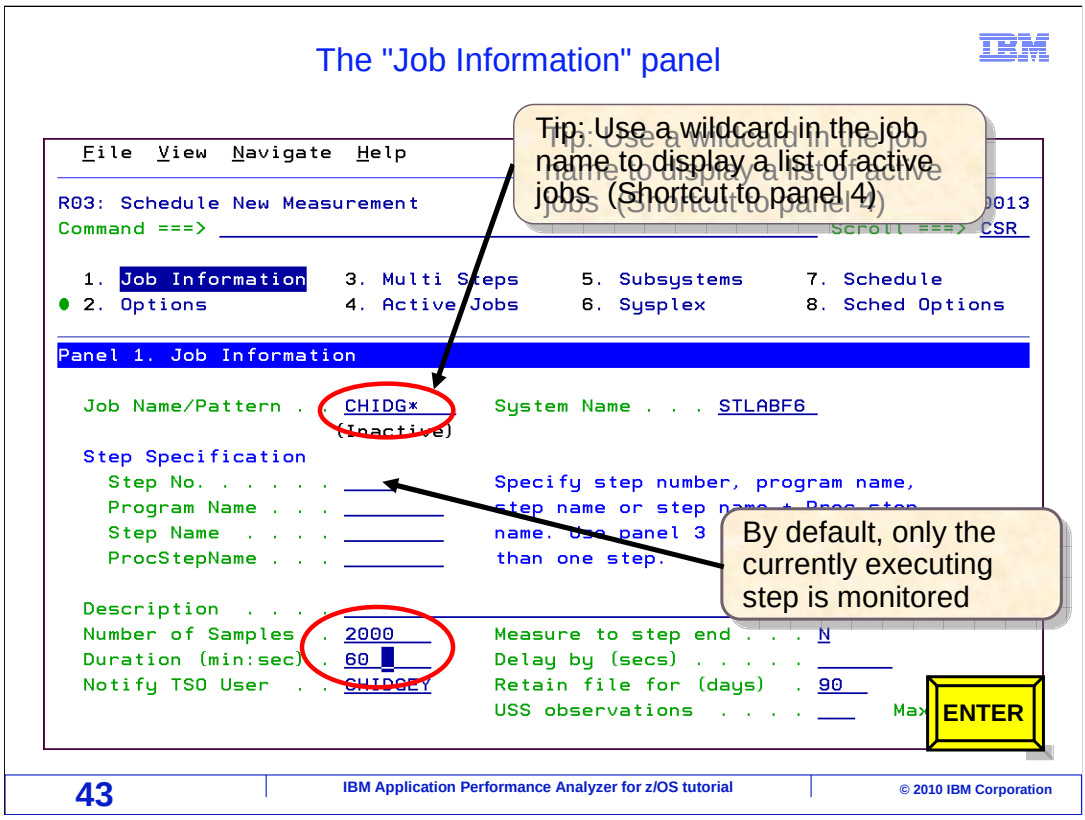
You will go through several walk-throughs of entering observation requests. First, how to enter an observation request for an active job. After that, how to enter a request for a job that is not running yet. After that, how to enter a single request to monitor more than one job. After that, how to schedule requests for one or more jobs that will run much later. After that, how to enter a request for CICS applications and finally, how to enter a request using a threshold.

Let’s start with entering an observation request for a job that is currently active in the CPU.

Enter a NEW observation request

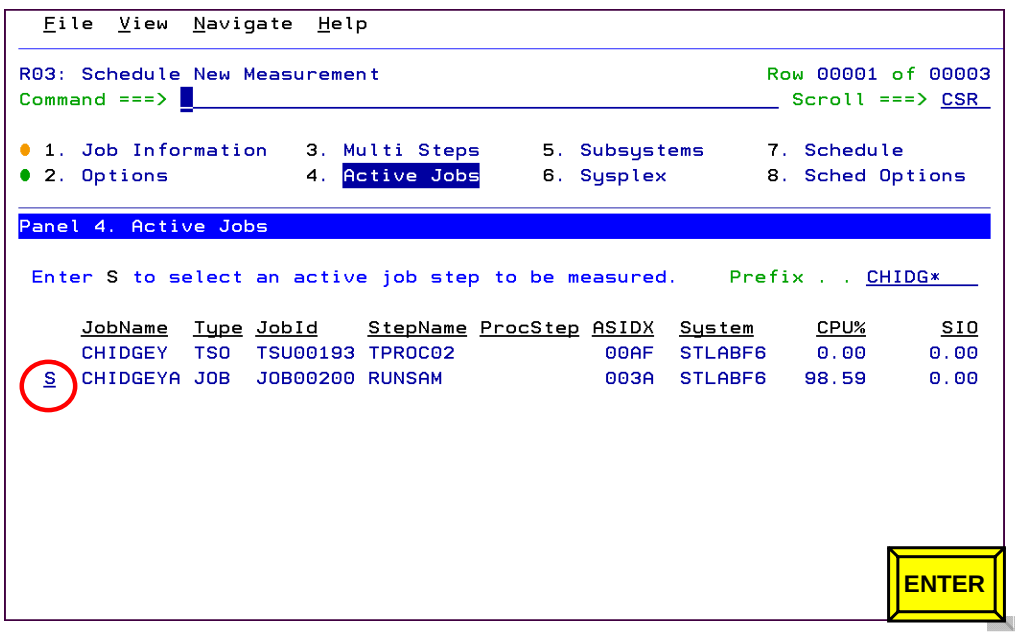


Remember, there are two ways to enter a new observation request. You can enter “NEW” as a line command next to an existing request, to use it as a model. This can save you some time if you have already monitored an application before. In this example, “if you want to start with all of the defaults, type “NEW” on the command line, and press Enter.



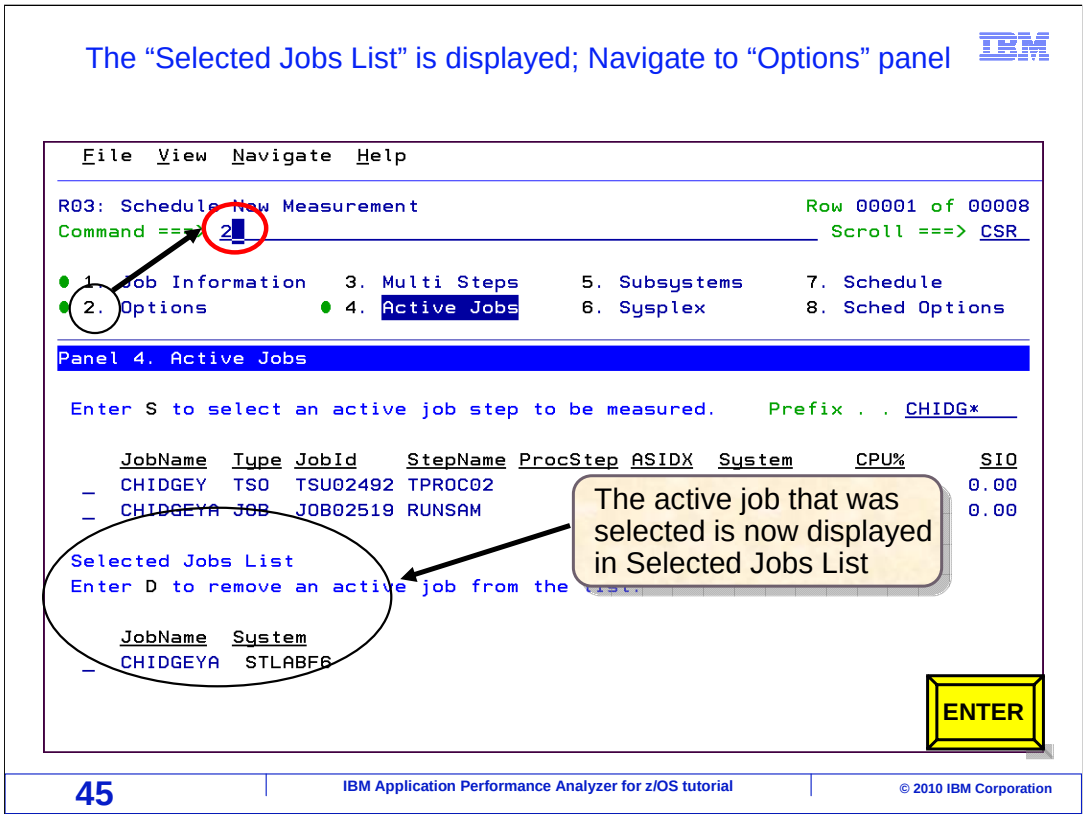
In the “Number of samples” field, 2,000 is entered, and in the “Duration” field 60 seconds is entered. That means that a total of 2,000 samples is requested, and APA will monitor the application for 60 seconds. After 60 seconds, it will stop monitoring. The job to monitor is an active job, that is, it is already running. Do not forget that you have to tell APA if you want to monitor an active job. One way is to use panel four, the panel that displays a list of active jobs and regions. Here is a tip. Use an asterisk wildcard in the job name field to display a list of active jobs. It is a shortcut to panel four. In this example, the first few letters of the job name is typed in the job name field followed by an asterisk and Enter is pressed.

The "Active Jobs" panel



That took you right to panel four where a list of matching jobs and region names are displayed.

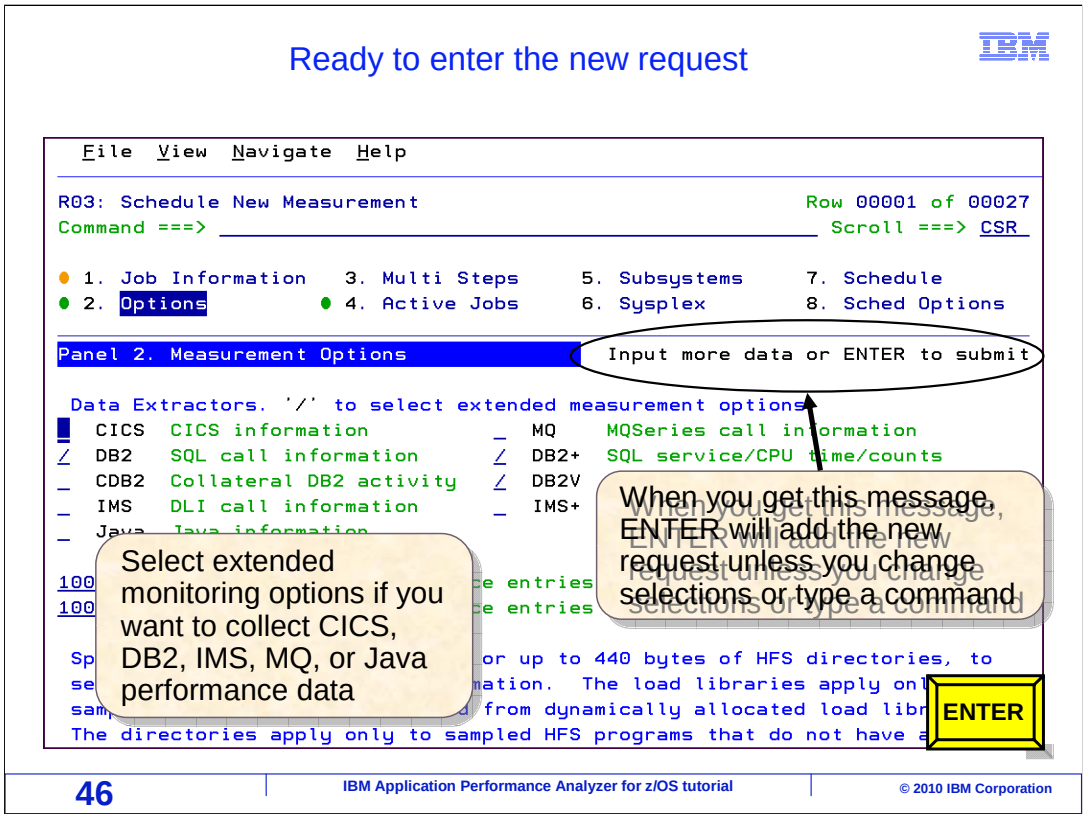
To select a job use an S line command and press Enter.



Notice that the active job you selected is now displayed in the lower half of the panel in Selected Jobs List.

From this panel, you can go directly to any of the other panels. For example, if you know that your job accesses DB2 databases, you will want to turn on the DB2 data extractors. You can do that in panel two.

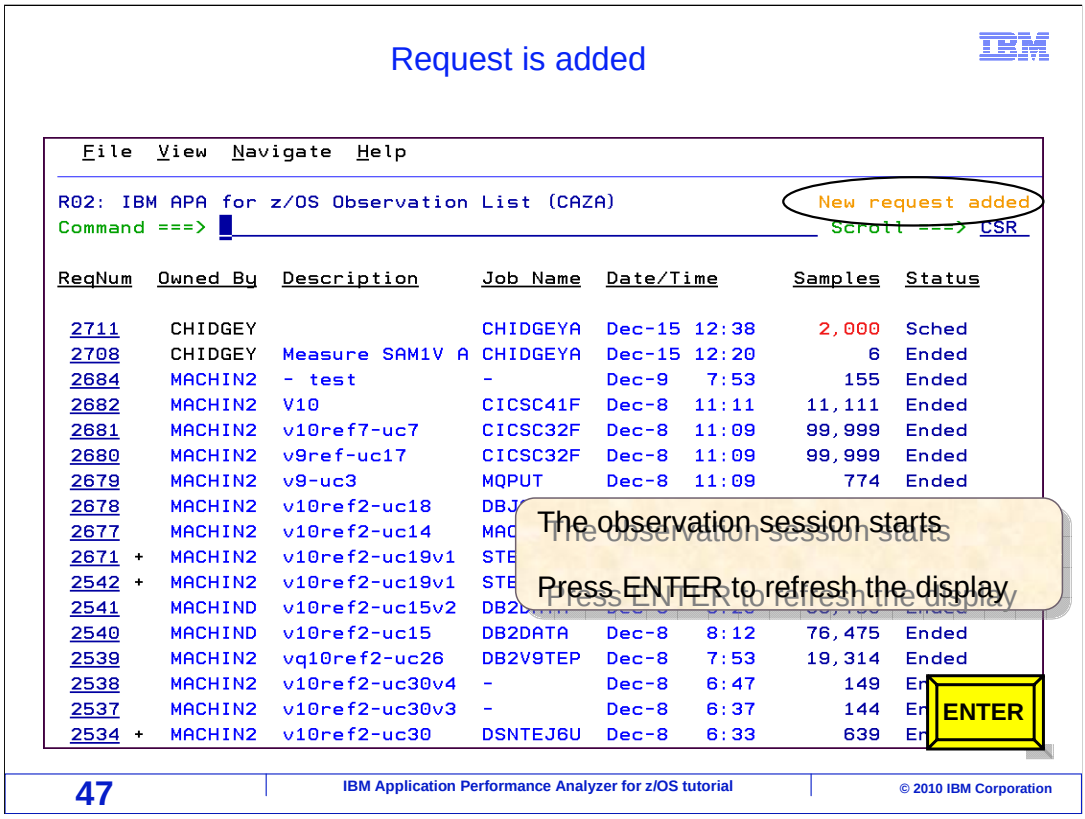
Just type a two on the command line, and press Enter. Like so.



Panel two is the options panel, where you can select the extended data extractors.

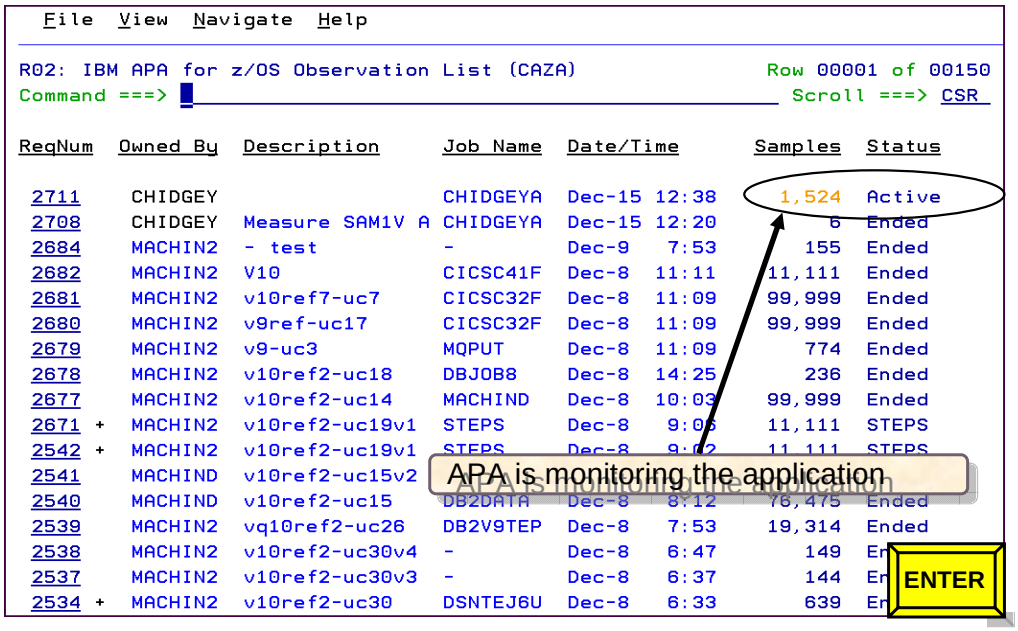
In this example, the DB2 extractors are selected. The other ones are not needed for this application, since it does not run in CICS, it does not use IMS or MQSeries, and it is not written in Java. At this point, your new request is ready.

Notice that the message “Input more data or ENTER to submit” is displayed. When you get this message, pressing enter will add the new request, unless you change selections or type a command on the command line. Press Enter…



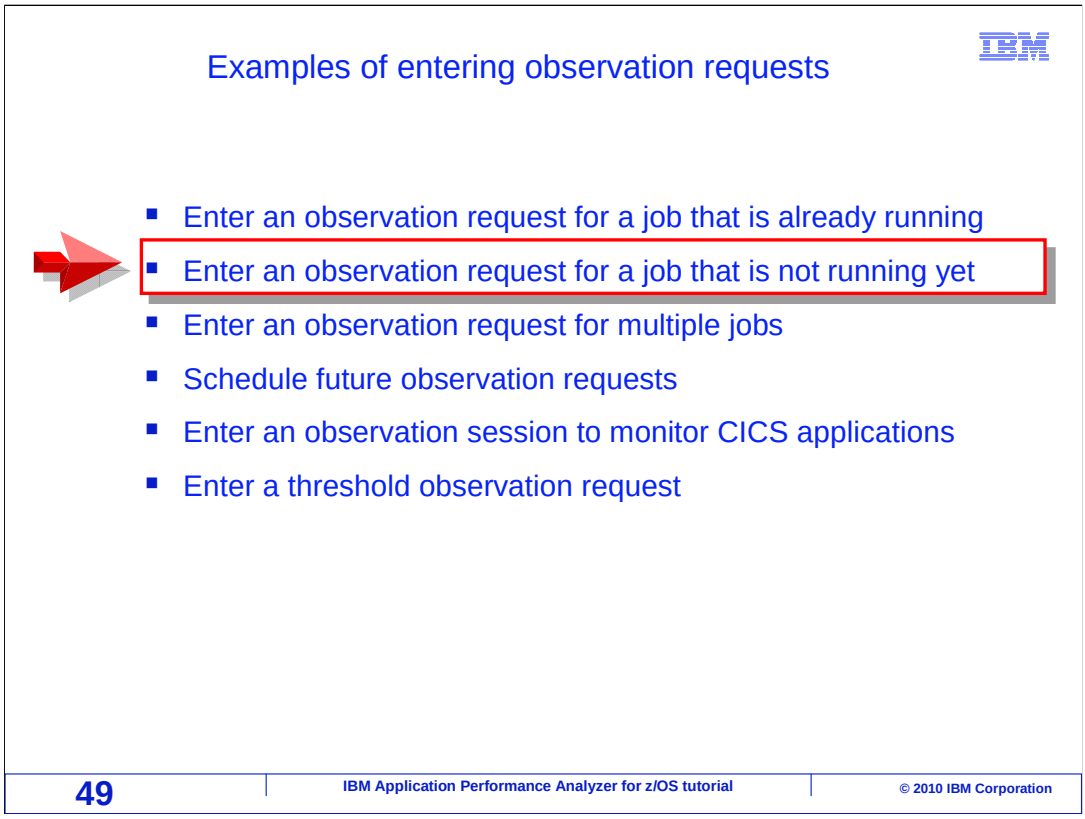
And the new request was added. It is displayed at the top of the observation list. You can refresh the observation list just by hitting Enter.

Observation session is active



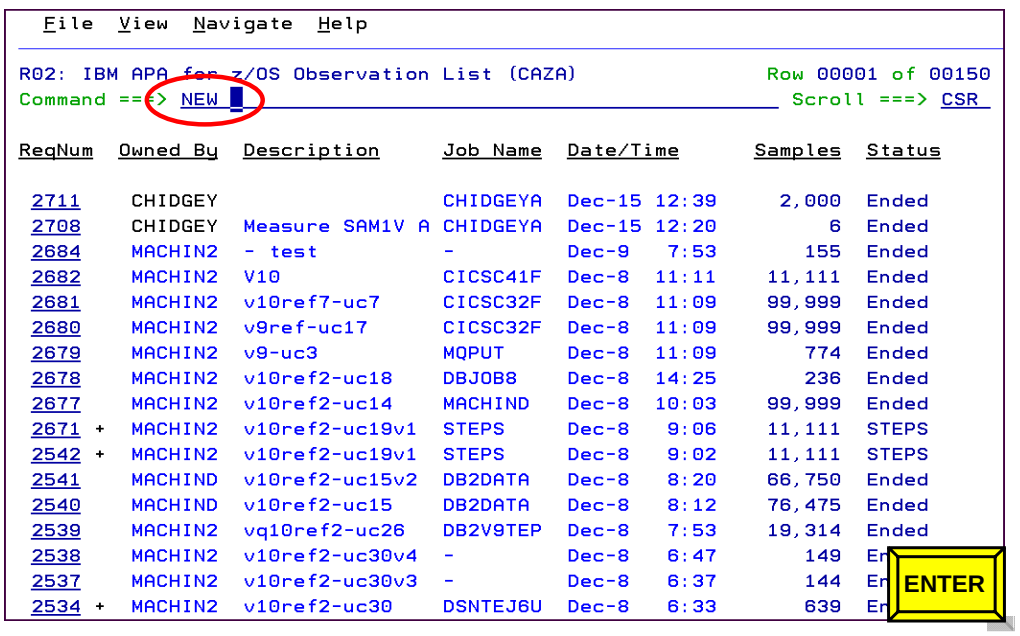
Since the job that is being monitored is already running, and it was specified that it was an active job, the monitoring session immediately goes active. APA is now monitoring the application and collecting performance data.

So that was the first example, entering a new observation request for a job that was already running.

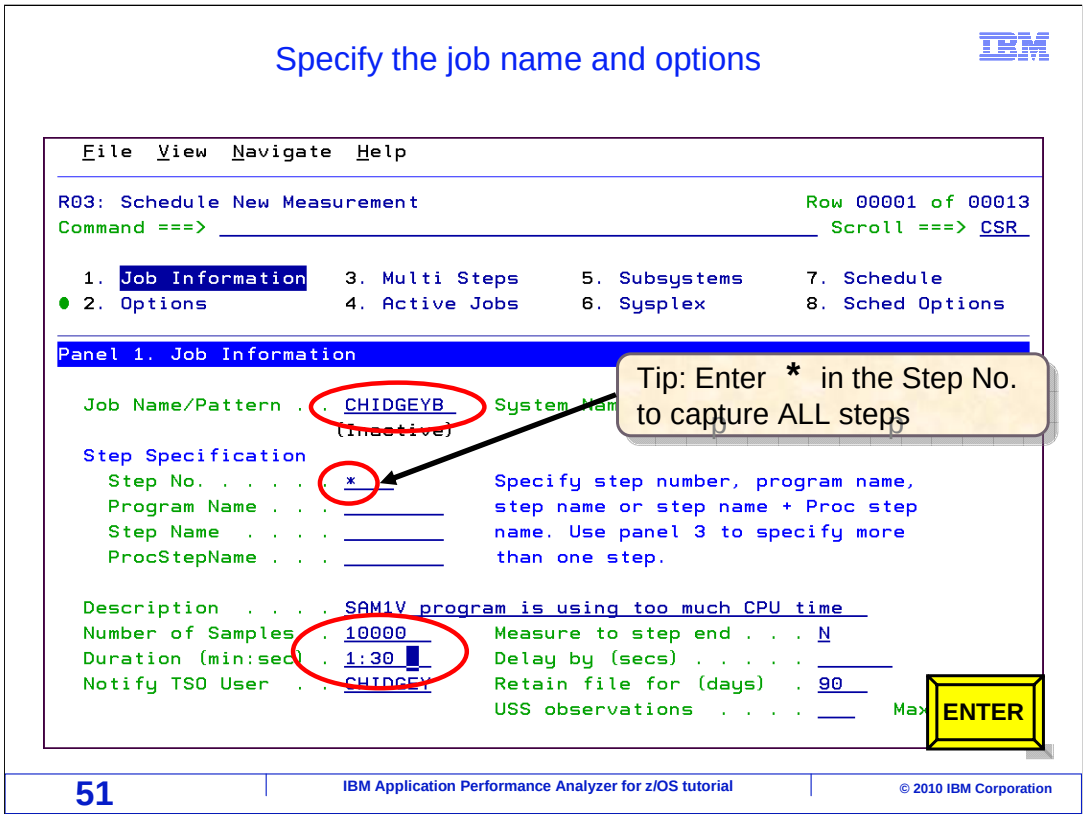


Next, you are guided through how to enter an observation request for a job that is not yet running.

Enter a NEW observation request



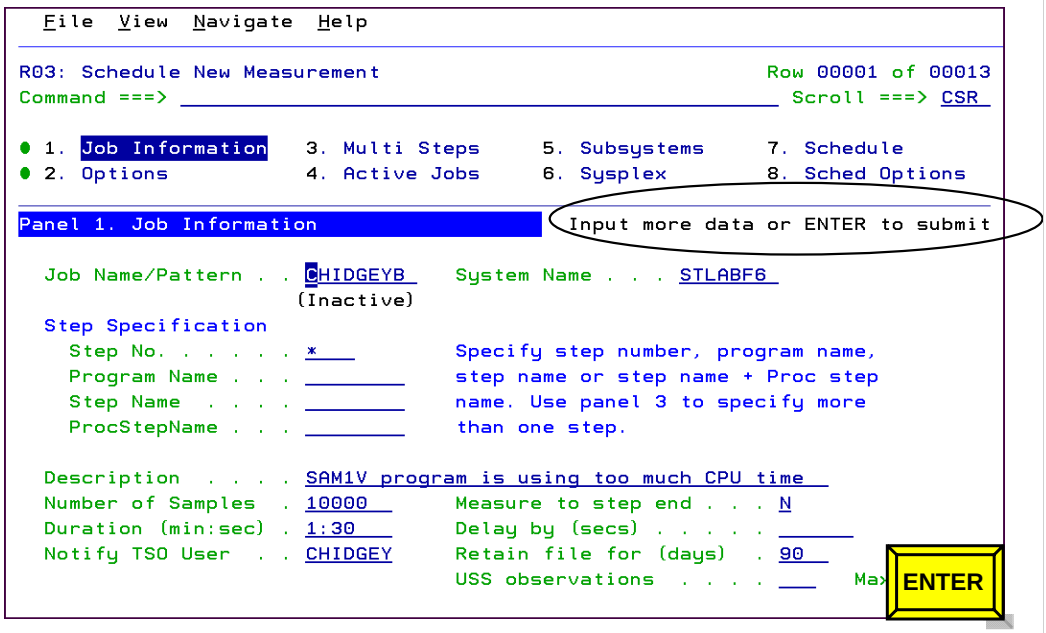
You start the same way as in the last example. Type the NEW command on the command line, and press Enter.



Panel one, Job Information, is displayed.

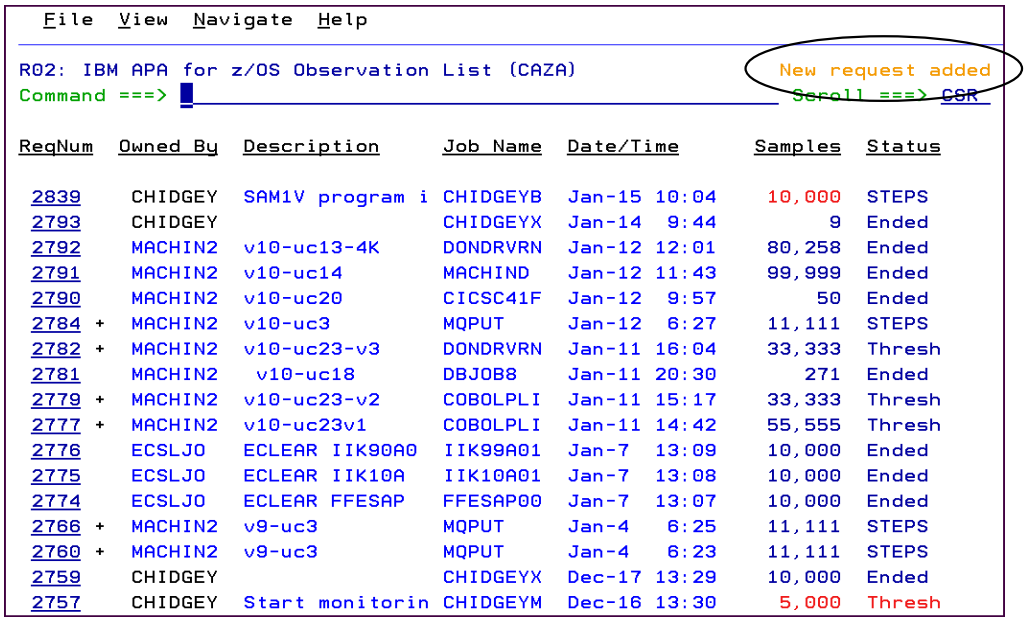
You must type in the name of the job that you want to monitor. In this example, the job is not running yet. An asterisk was also entered in the “step number” field. By default, APA only monitors the first step in the job. The asterisk will make APA Monitor all of the steps in the job. Notice also that some text was entered in the “Description” field. That is optional, but you might find it handy to enter a description as a reminder to yourself about why you entered this request. Finally, notice that 10,000 samples and a duration of one minute and 30 seconds were entered. Press Enter.

Ready to submit the new request

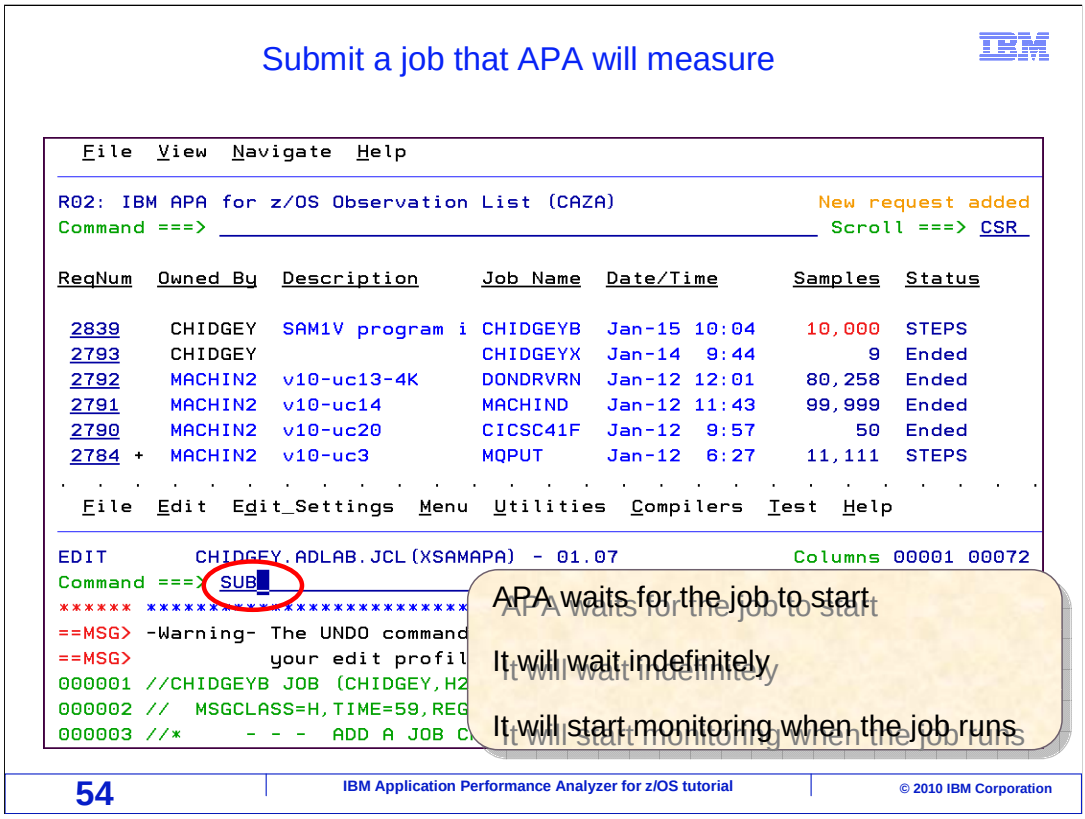


Since the message “Input more data or Enter to submit” is now displayed, APA is ready to accept the request. In this example, the job does not need any of the data extractors, that is to say that it does not use DB2, IMS, or anything else that requires an extractor to be selected. Press Enter.

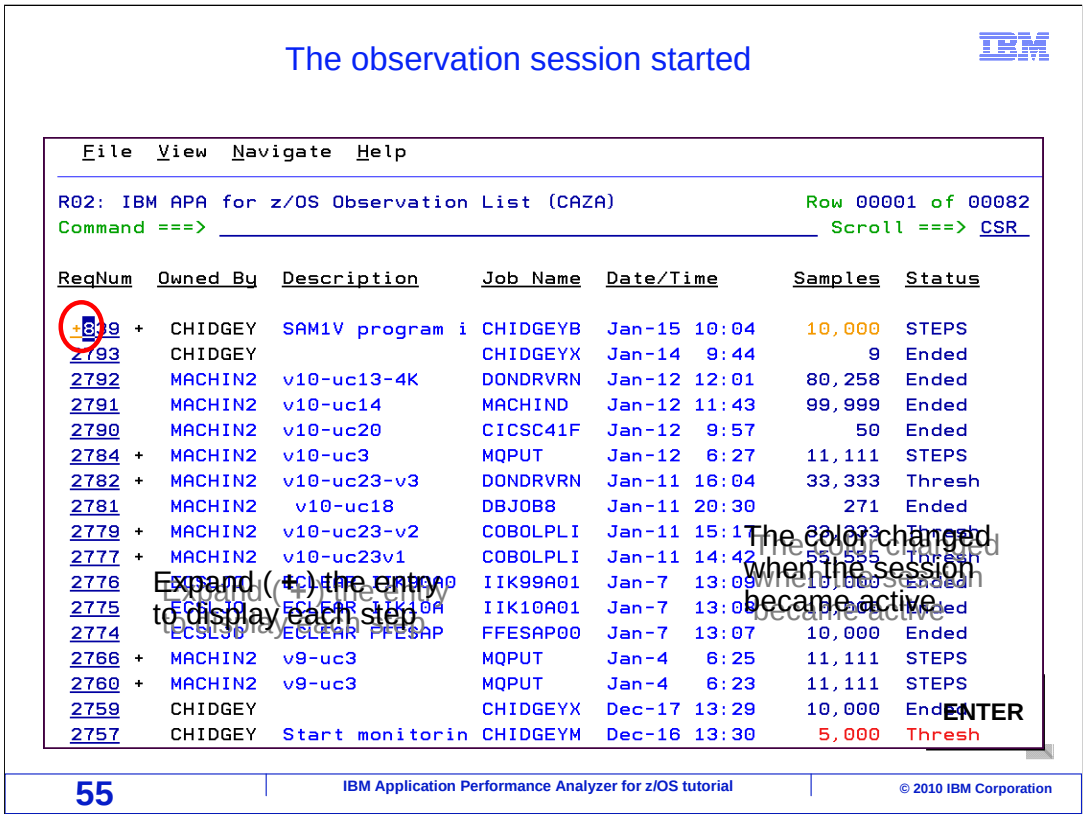
The new request has been submitted



And the new request was added, and is displayed at the top of the observation list. APA will patiently wait for the job to run. APA is notified by the system every time a job starts, and when the right job starts, monitoring will begin. APA observation requests never expire. You can run the job in a minute or in a year, and either way, APA will start monitoring when the job starts. The request will still be there even if the system is IPLed. If you change your mind, you can delete your observation request. You can do that here in the observation list with a “D” (for delete) line command.

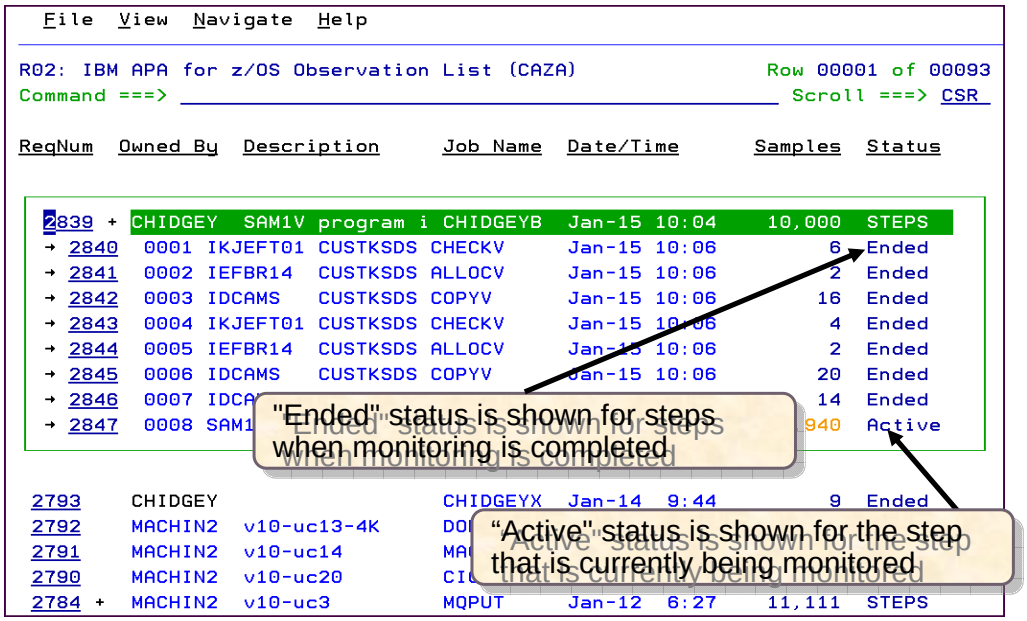


When you are ready, you can submit the job so that APA will monitor it. If you split the screen, you can bring up the JCL in the editor, and submit it. APA does not care how a job is submitted. It can be submitted by you, by someone else, or by a job scheduling system.

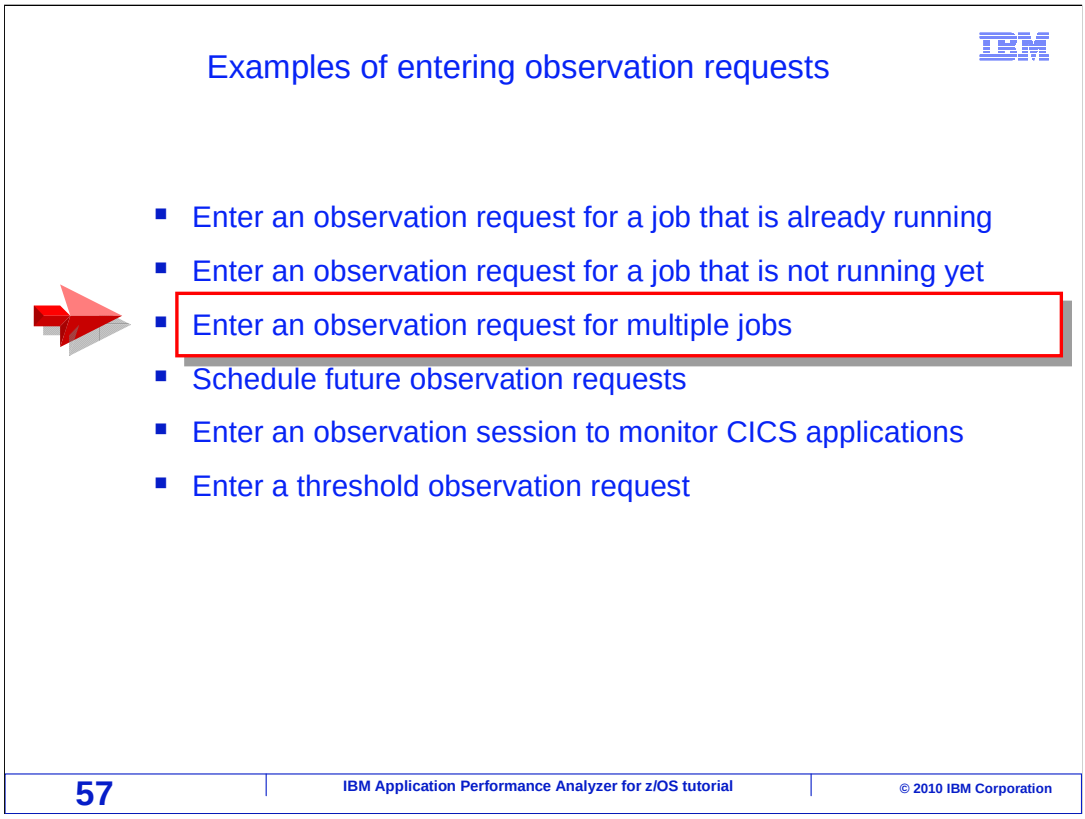


As soon as the job started to run, APA started to monitor it. Notice that the request's number of samples color changed when the monitoring session became active. Since APA is monitoring multiple steps for this job, you can expand the entry to display each step monitored. To expand an entry, overtype the first position of the request number field with a "+" and press Enter.

Steps in the monitored job

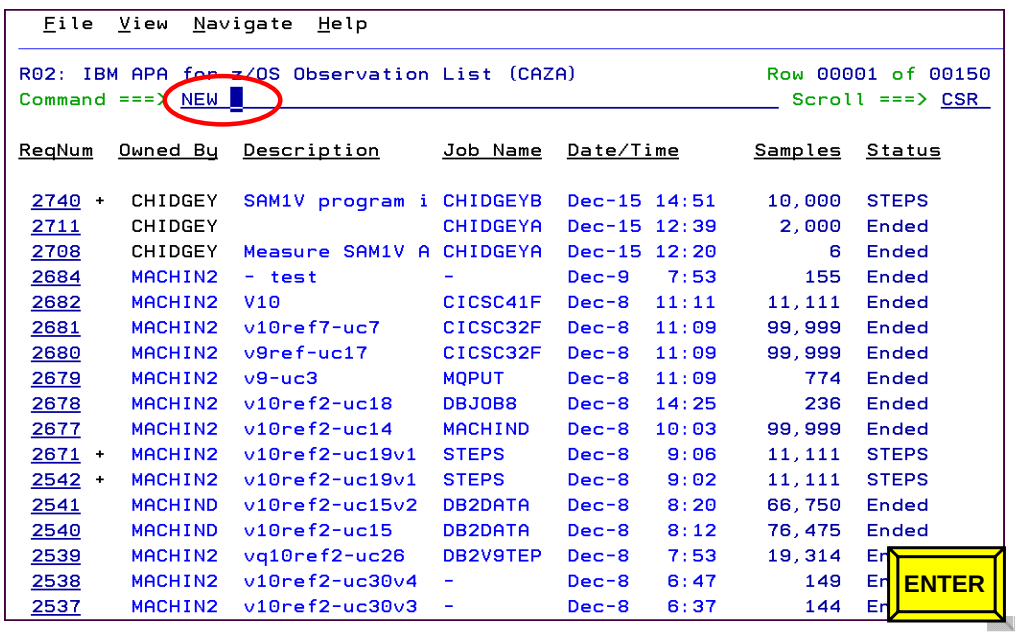


The entry is expanded in the list, and each step monitored is shown. As monitoring completes for each step, the step's status changes to "Ended". And that is how to enter a new request for a job that is not running yet.

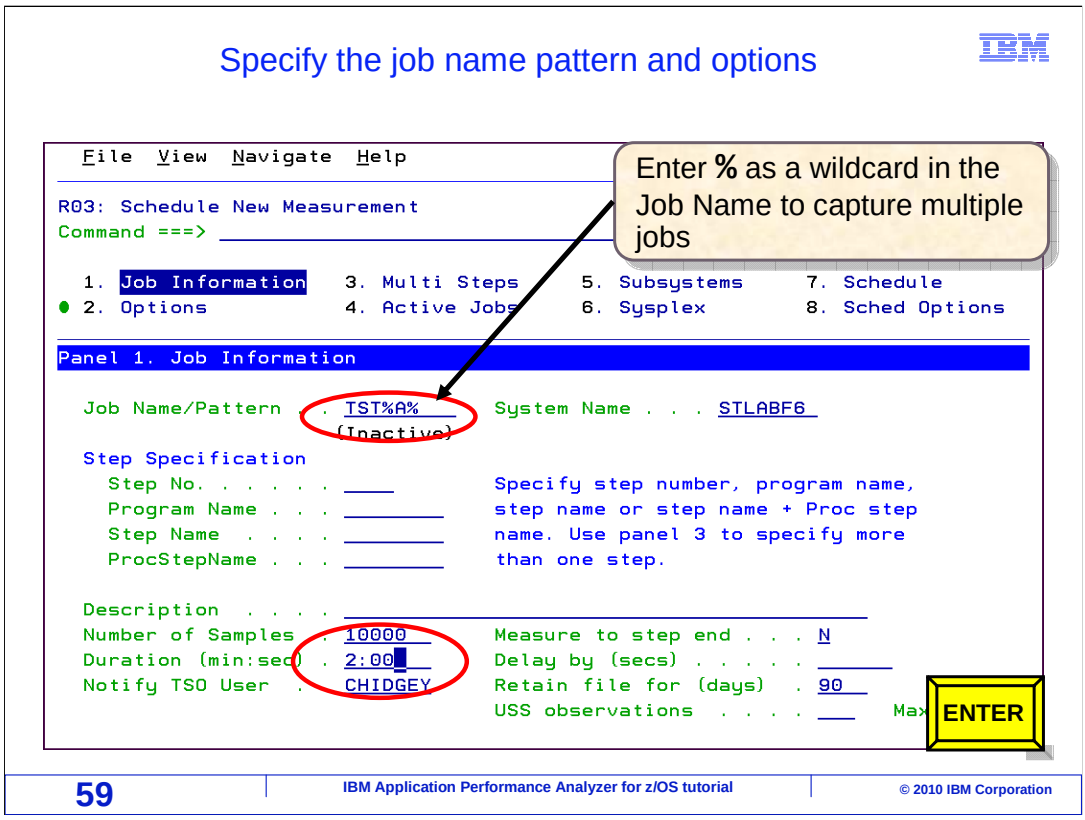


Next, you are guided through how to enter an observation request for multiple jobs.

Enter a NEW observation request



In APA, you can enter one request to monitor multiple jobs simultaneously. You start the same way as in the last example. Type the NEW command on the command line, and press Enter.



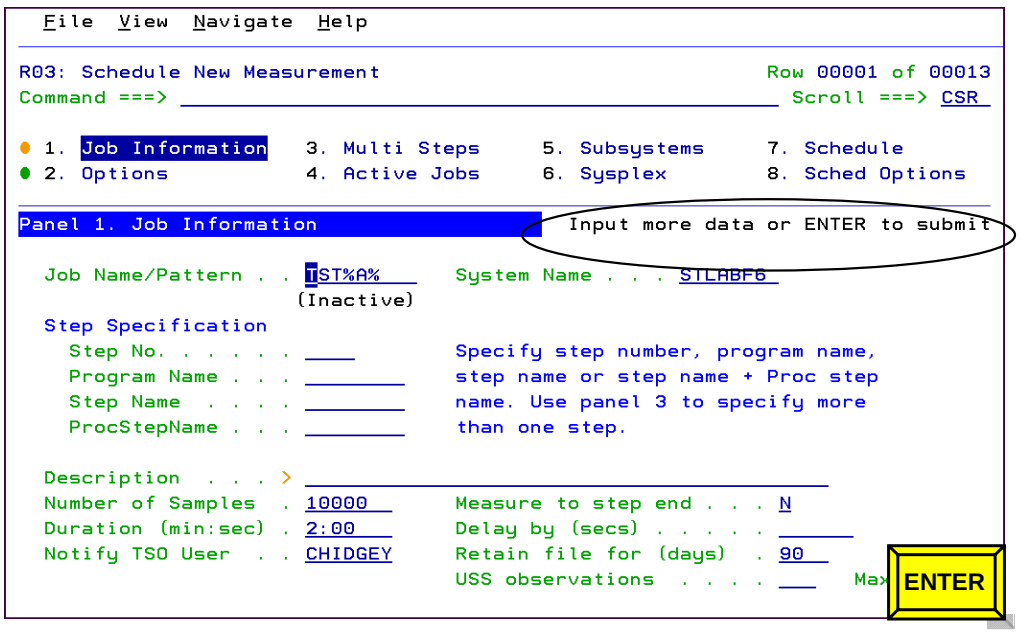
Panel one, Job Information, is displayed. In order to set up this request to monitor multiple jobs , a wildcard is used in the job name field. Entering a percent sign as a wildcard in the jobname field indicates to APA that multiple jobs are to be monitored.

You must type in the name pattern of the jobs that you want to monitor using the percent sign as the wildcard character. In this example, all jobs beginning with jobname TST and containing an “A” somewhere after that are monitored. Finally, notice that 10,000 samples and a duration of two minutes were entered. These are the number of samples and the duration to be taken for each job being monitored.

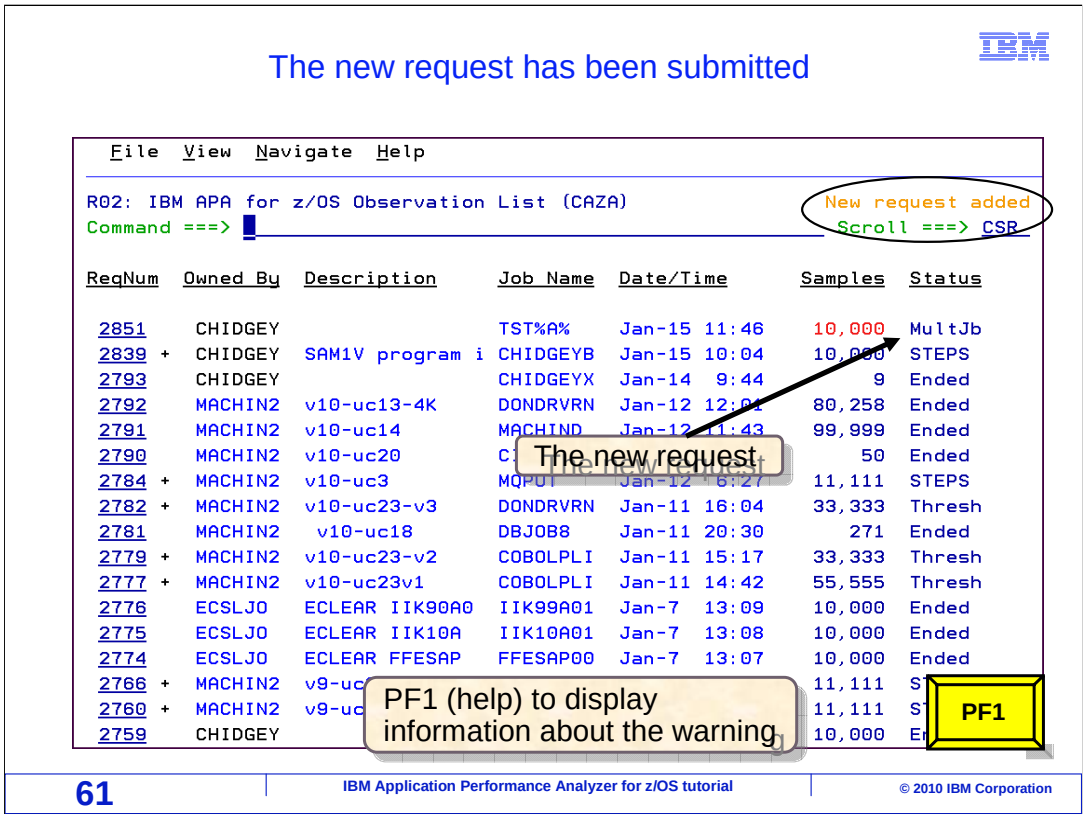
You need to be aware that when a percent sign is used as a wildcard character in the jobname, APA assumes the jobs that match the pattern are active.

If no active jobs match the pattern, Panel four, Active Jobs, is displayed. Press enter.

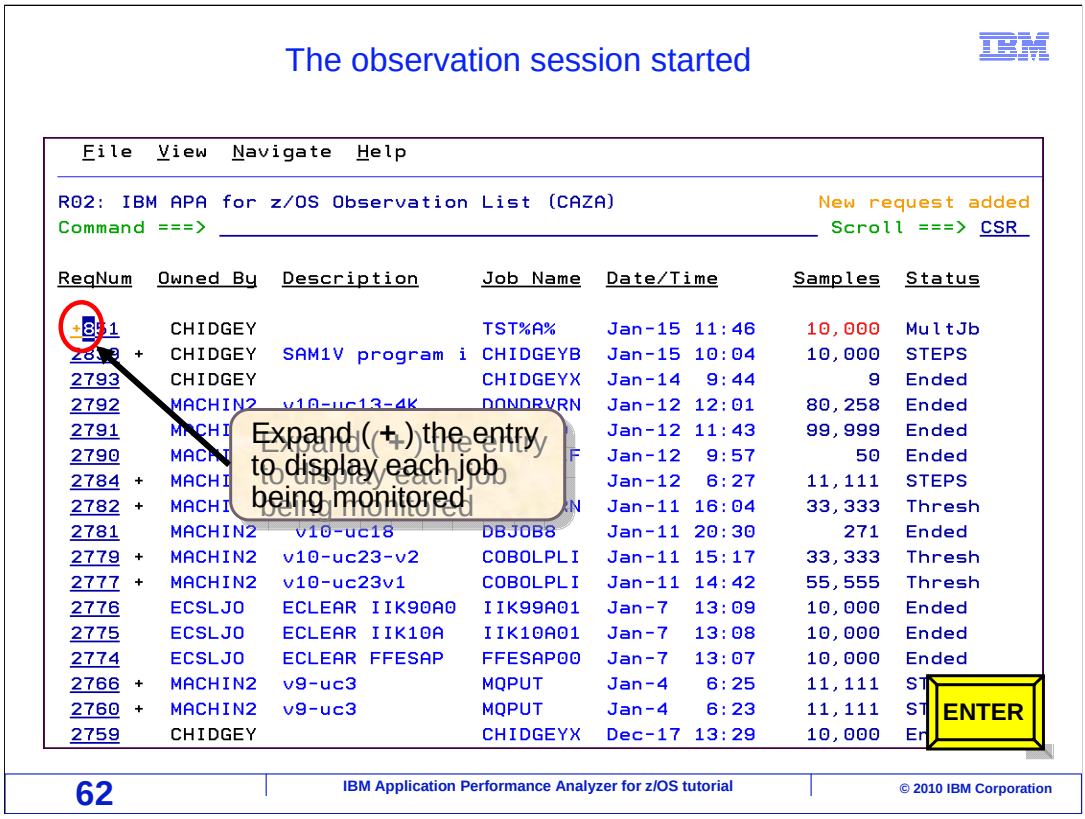
Ready to submit the new request



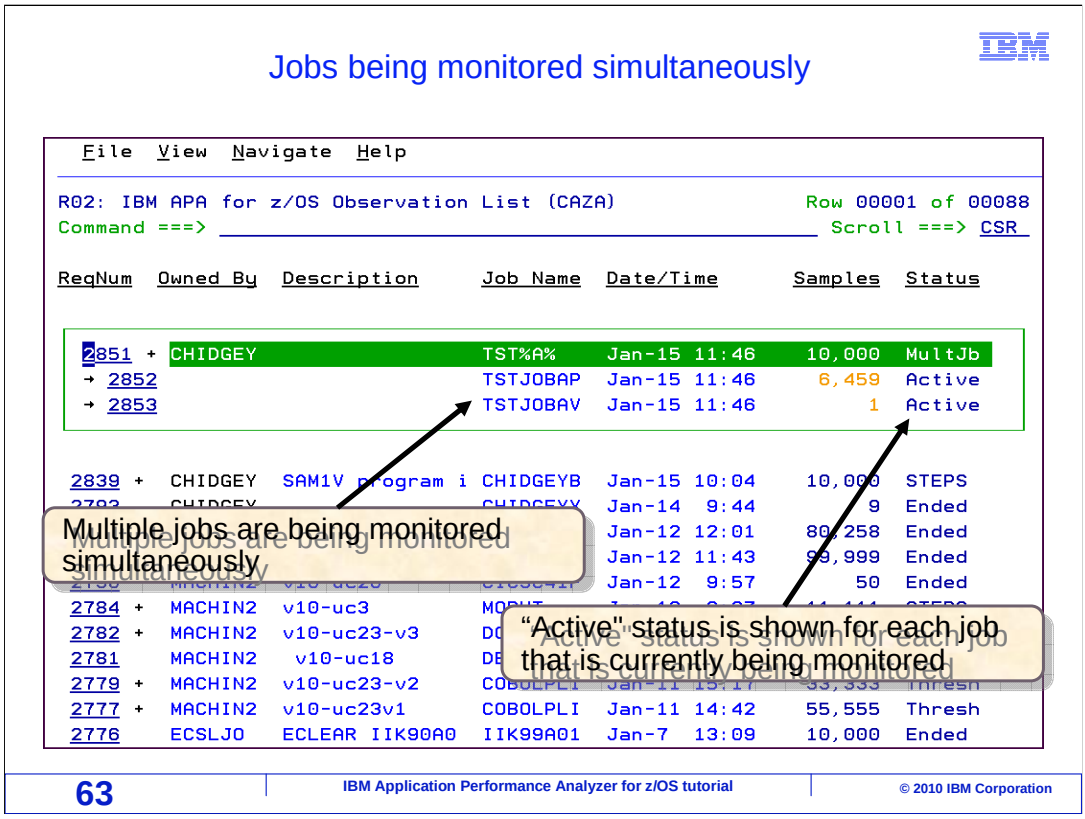
Since the message “Input more data or Enter to submit” is now displayed, APA is ready to accept the request. In this example, the job does not need any of the data extractors, that is to say that it does not use DB2, IMS, or anything else that requires an extractor to be selected. Press Enter.



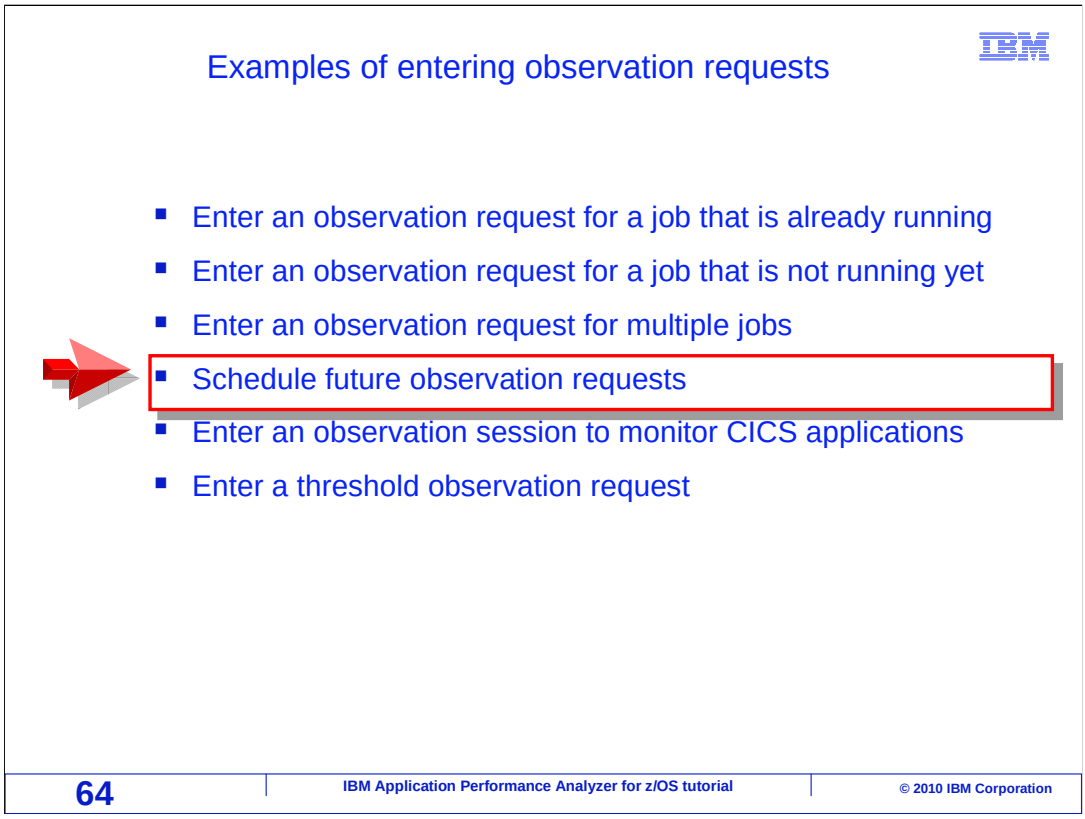
The new request was added, and is displayed at the top of the observation list. When a request is entered to monitor multiple jobs, it is indicated in the status column.



APA will start monitoring any active jobs that match the jobname pattern. Since APA is possibly monitoring multiple jobs, you can expand the entry to display each job monitored and to see their status. To expand an entry, overtype the first position of the request number field with a “+” and press Enter.

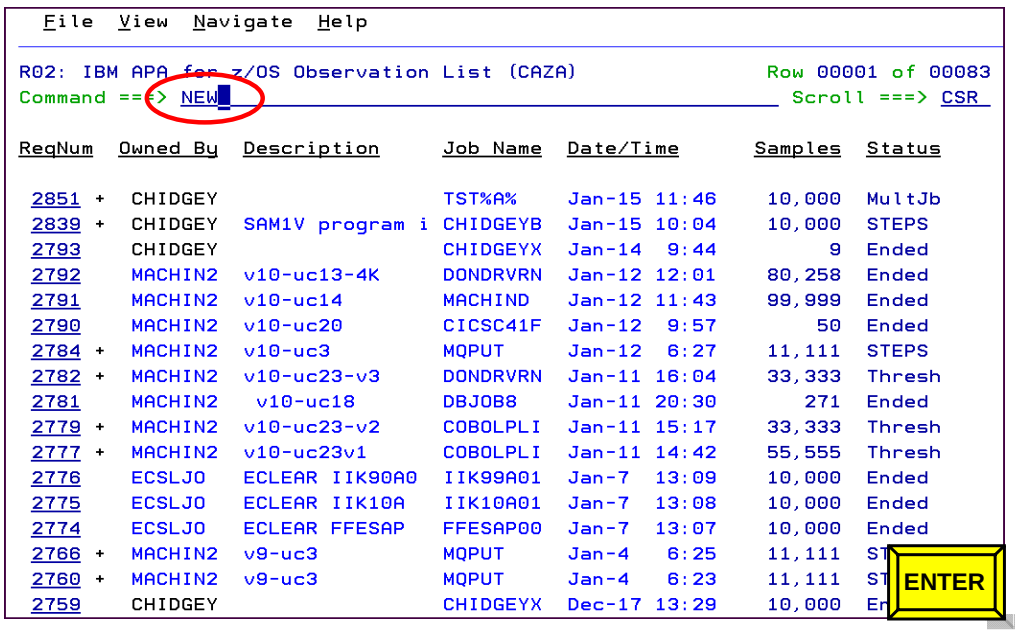


The entry is expanded in the list, and each job being monitored is shown. As monitoring completes for each job, the job's status changes to "Ended". Remember, that the number of samples and duration specified applies to each individual job being monitored. In this case,10,000 samples for a duration of two minutes is taken for each of these jobs. And that is how to enter a new request to monitor multiple jobs.

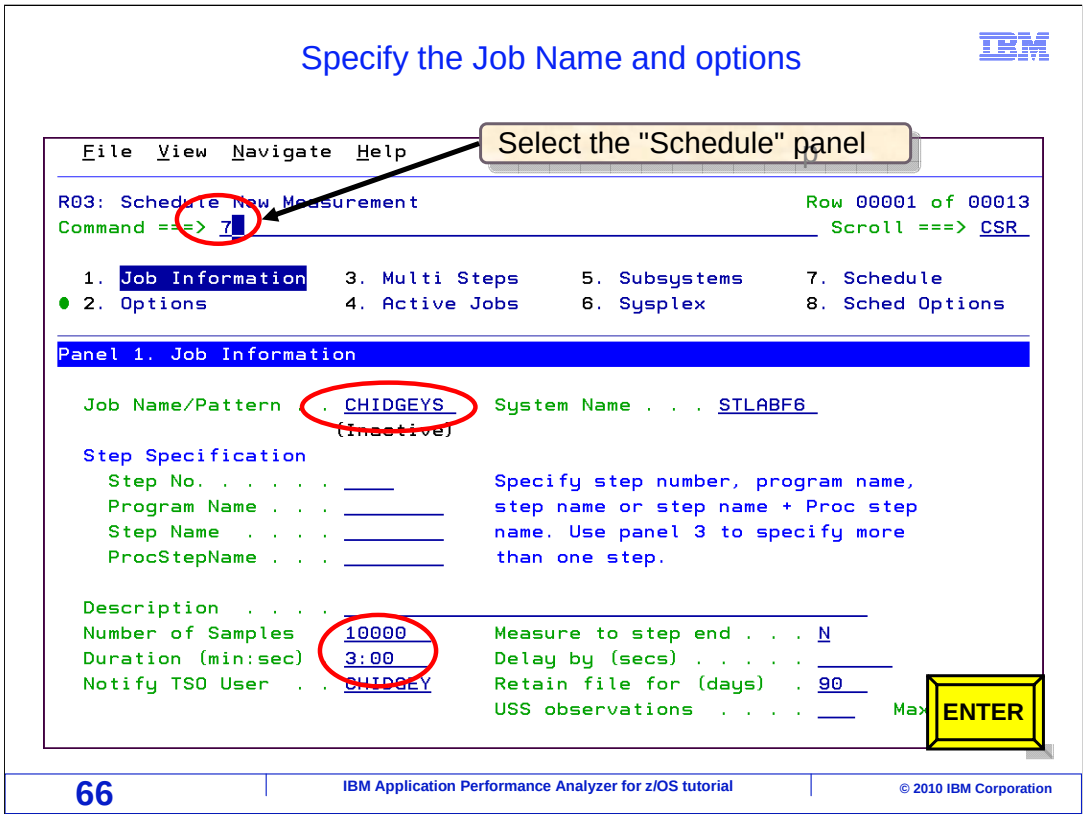


In the next walk-through, you will learn how to schedule future observation requests.

Enter a NEW observation request

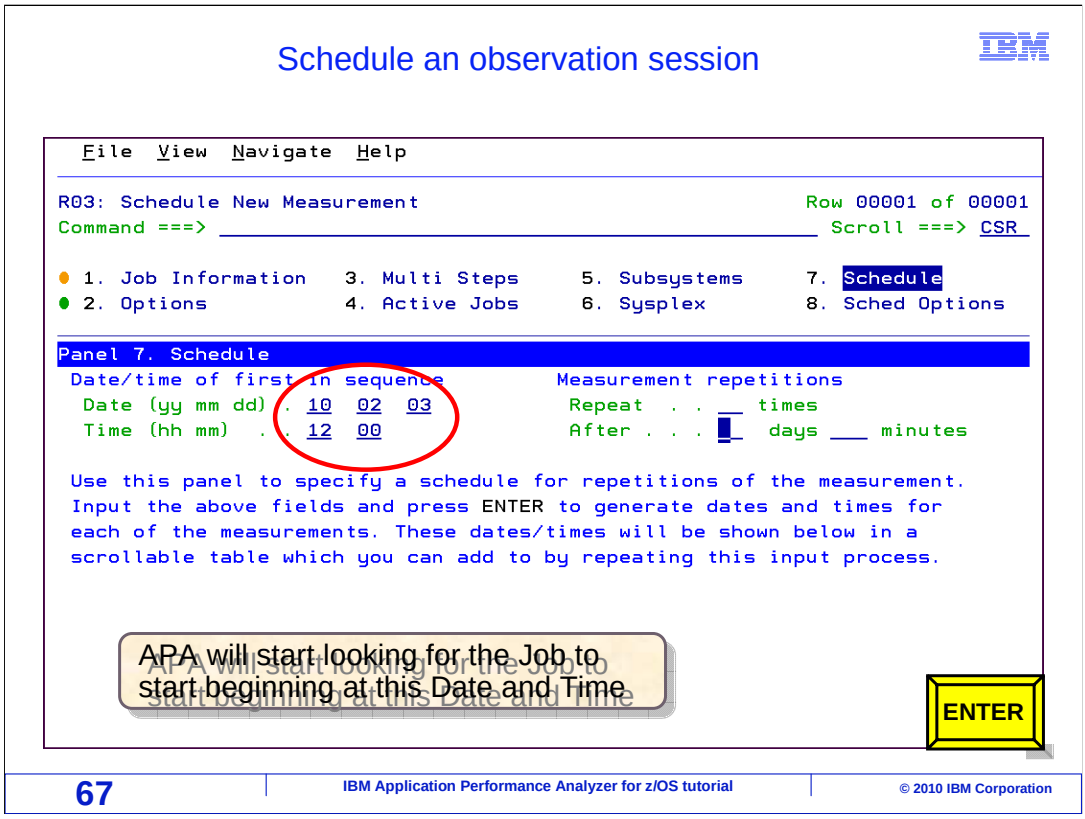


By now, you know how to enter a new observation request. Type “new” on the command line, and press Enter.



Panel one, Job information is displayed.

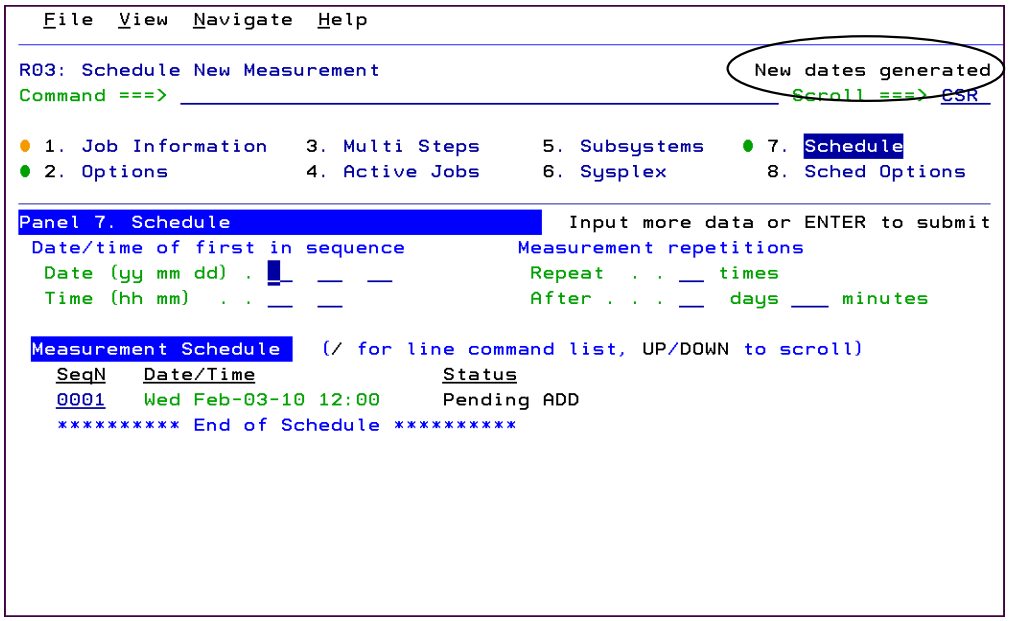
You must type in the job name, the number of samples that you want to have collected, and the duration. To schedule a future observation request, go to panel seven: the scheduling panel. Just type the number seven on the command line, and press Enter.



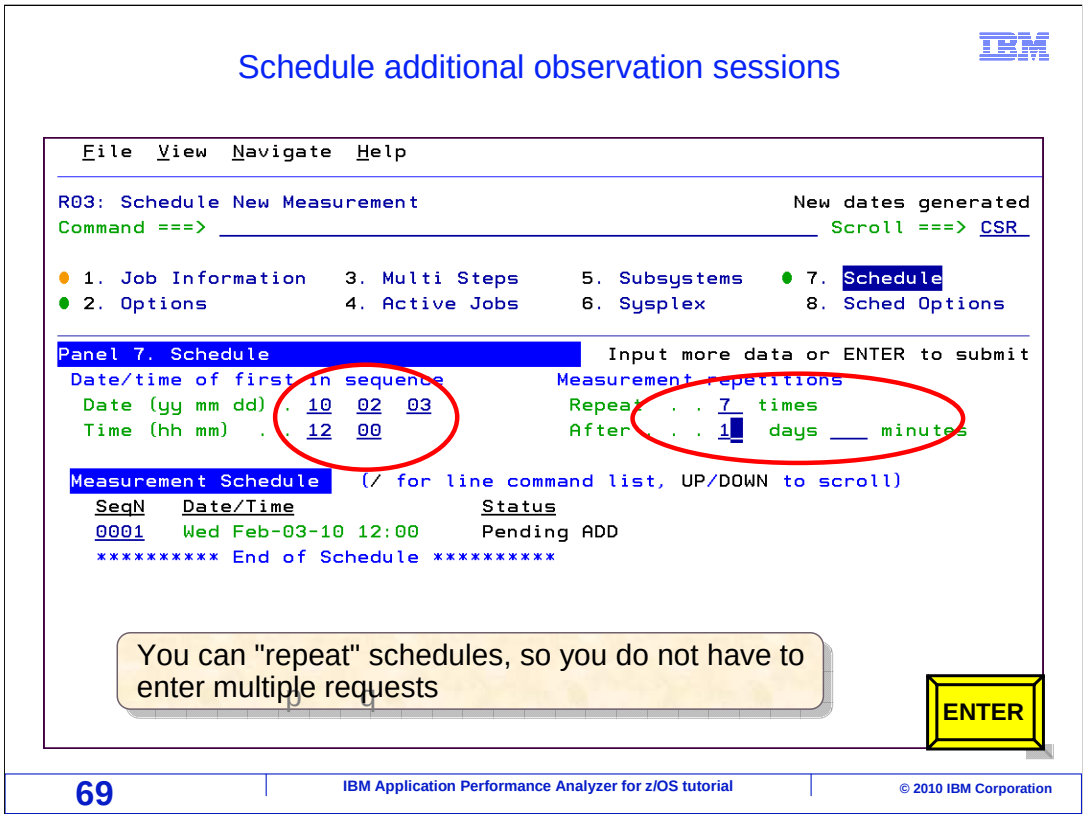
Here is the schedule panel. If all you want to do is have APA monitor a job the next time it starts, then you do not need to use this panel. Just add your new request, and APA will monitor the job the next time it starts, whenever it starts. So if APA will automatically monitor an application when it starts at any time in the future, when should you use this panel to schedule a request? The purpose of this panel is to allow you to delay the entry of a request. You might do that if you do not want APA to monitor a job or region the next time it starts, but you want monitoring to be done at some later time. You might also do it if you have, for example, a job that will run once every night for a week.

In this example, the date and time was entered to add the observation request. Notice that the date is in year month day format. Once enter is pressed…

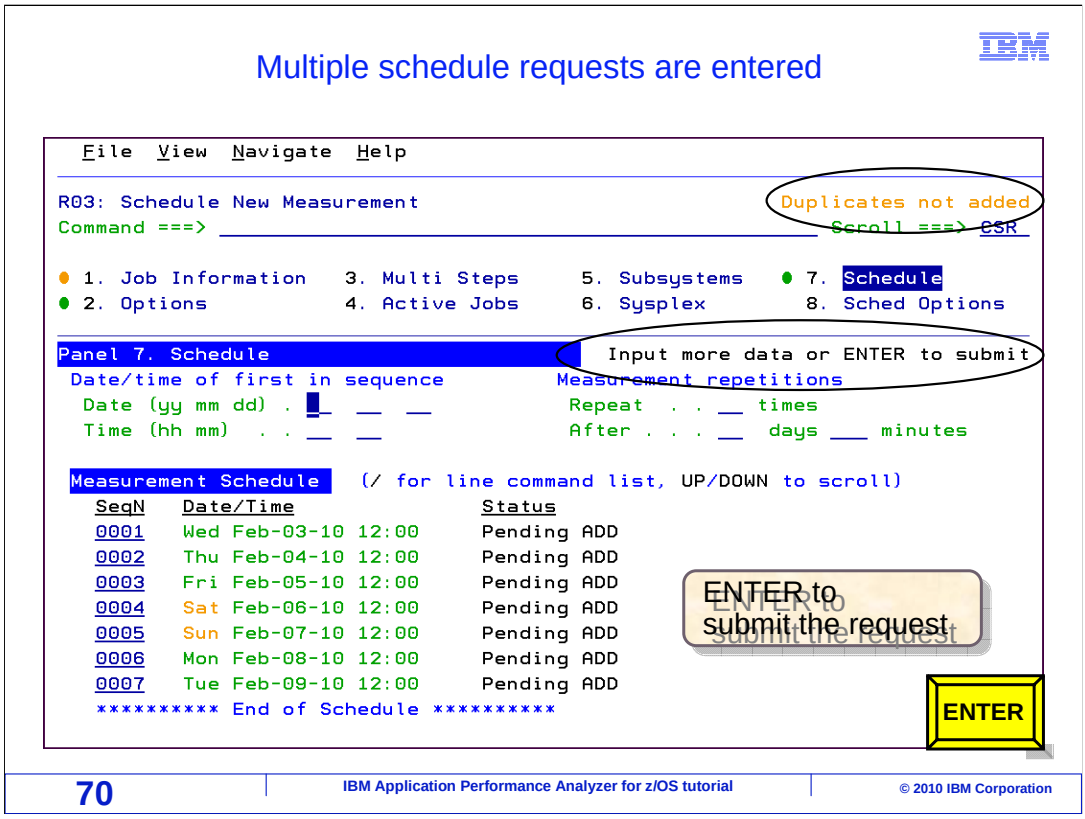
A schedule has been entered



The new scheduled request is added to a list that is displayed at the bottom of the panel. APA will add the request at this date and time.



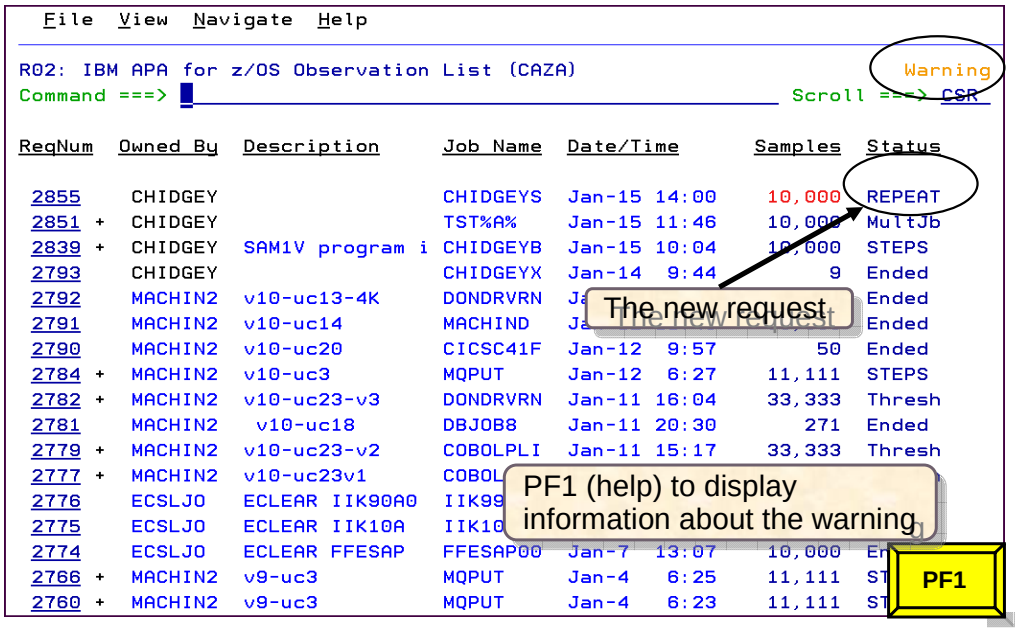
You can continue to add more scheduled requests. And, you can enter multiple requests at the same time. It works like this. If you enter a date and time. And in the measurement repetitions area, you specify, for instance, a seven in the “repeat” field. Then, a one in the “after days” field. That means you want to add seven new requests. The first one starting on the date and time you entered, with each subsequent request delayed by one day each. Press Enter.



Notice that the new scheduled requests have been added to the list. Also, you will notice that only the entries that were not already in the Measurement Schedule were added to the list.

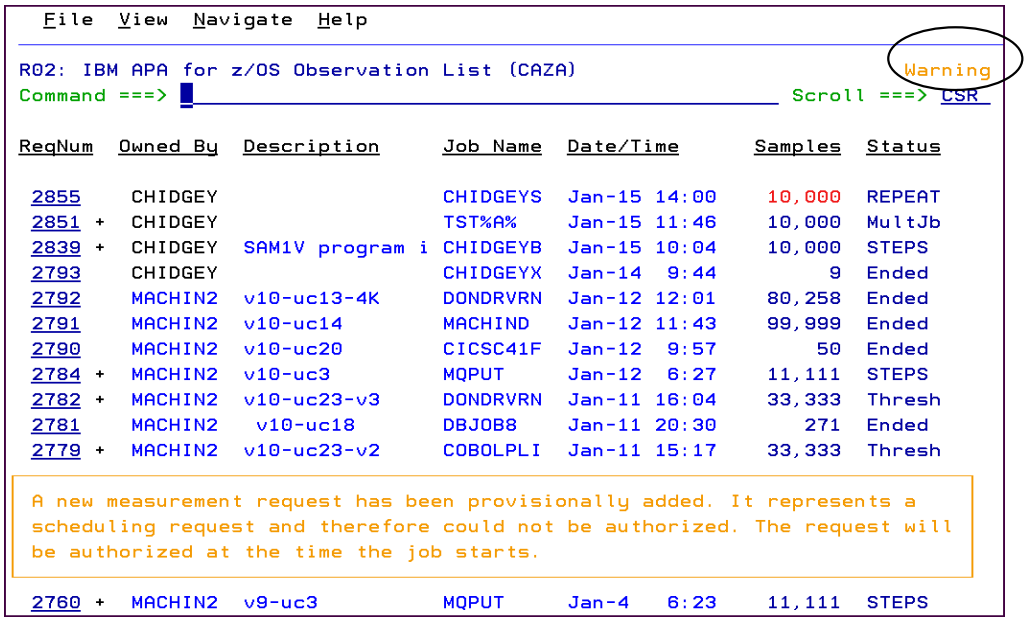
Press enter again to get the message “Input more data or enter to submit”. Press Enter.

The new request has been submitted

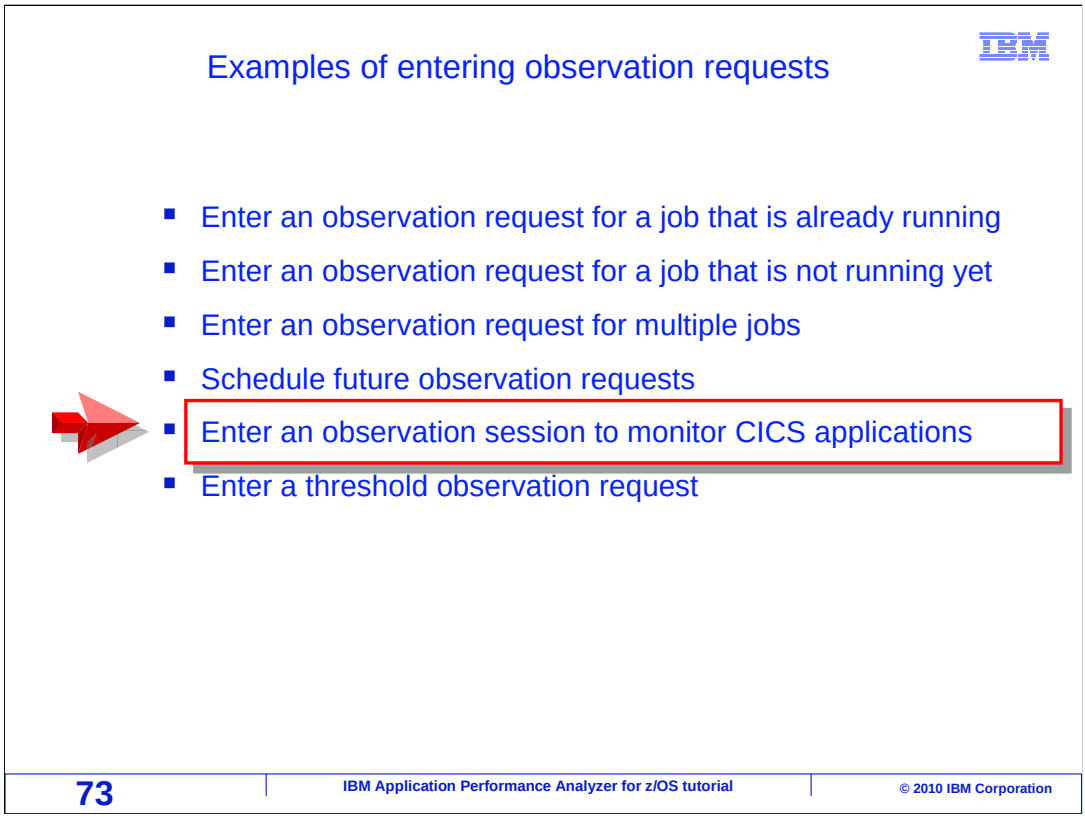


The new scheduled request is shown at the top of the observation list. It is typical to receive a warning message when you enter a new scheduled request. You can press PF1 (the help key) to display more information about the warning.

The new request has been submitted

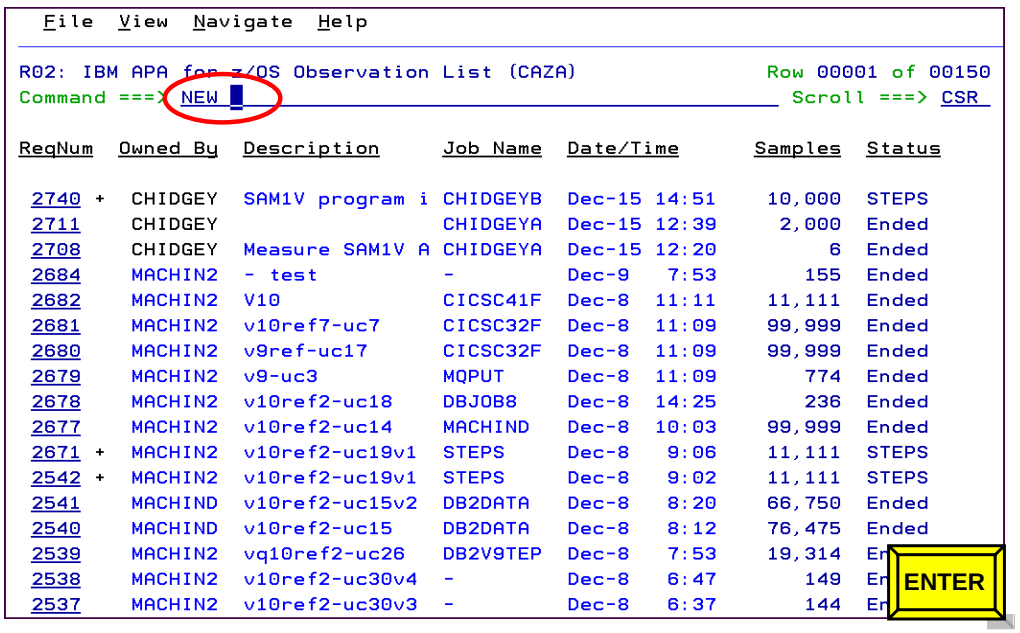


In this case, the warning is just saying that the request itself is checked for authorization, that is permission to monitor the application, when it becomes active. Most typically, you can ignore these warnings, assuming of course that you are authorized to monitor the application.

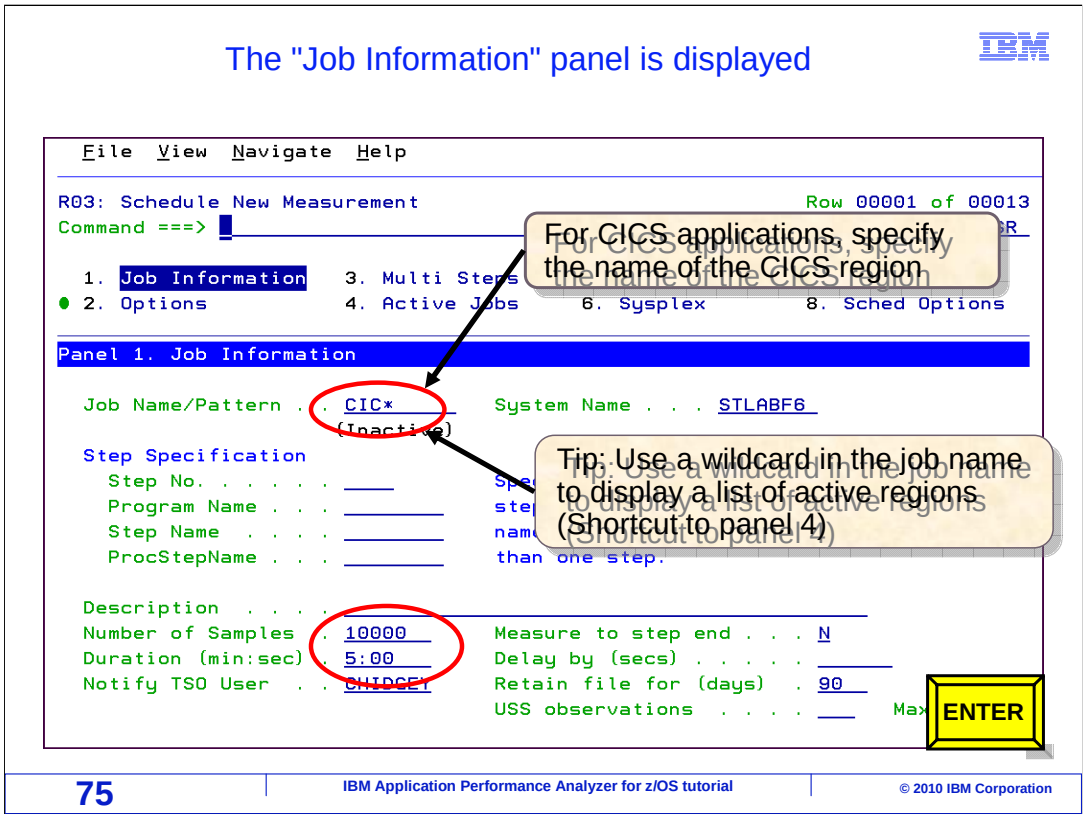


In this next example, you will learn how to enter an observation request to monitor CICS applications.

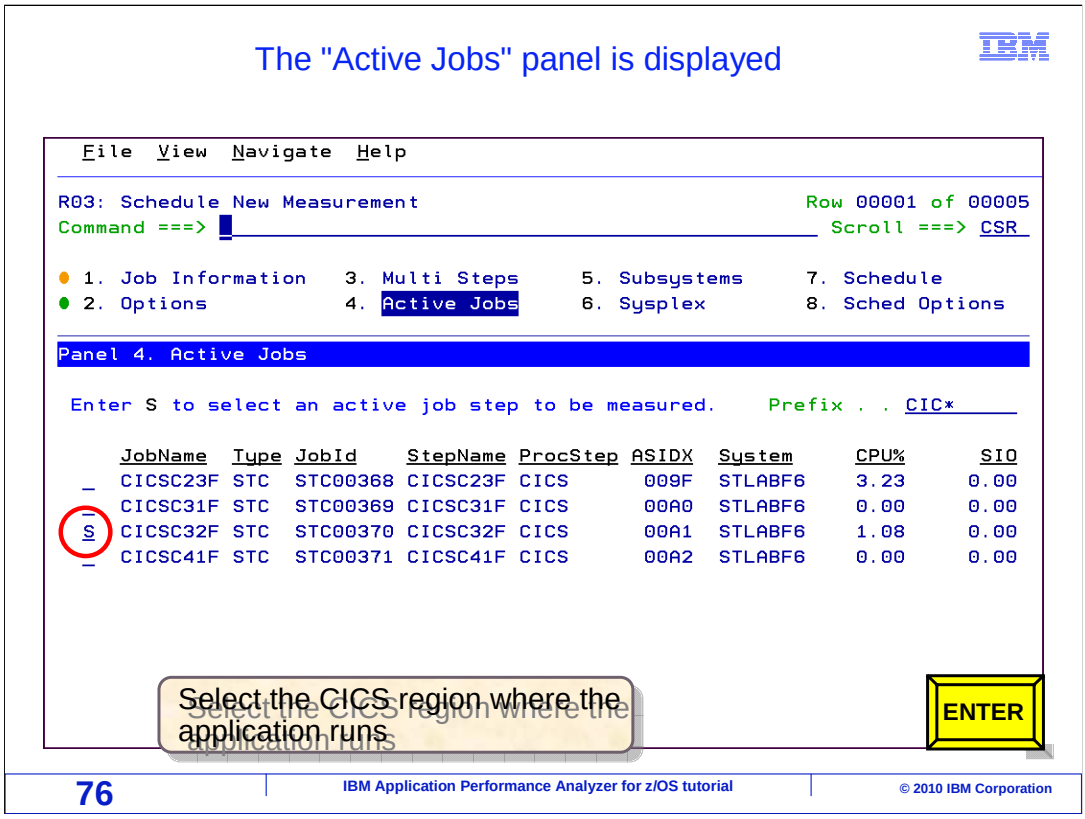
Enter a NEW observation request



You start by using the NEW command. Enter.

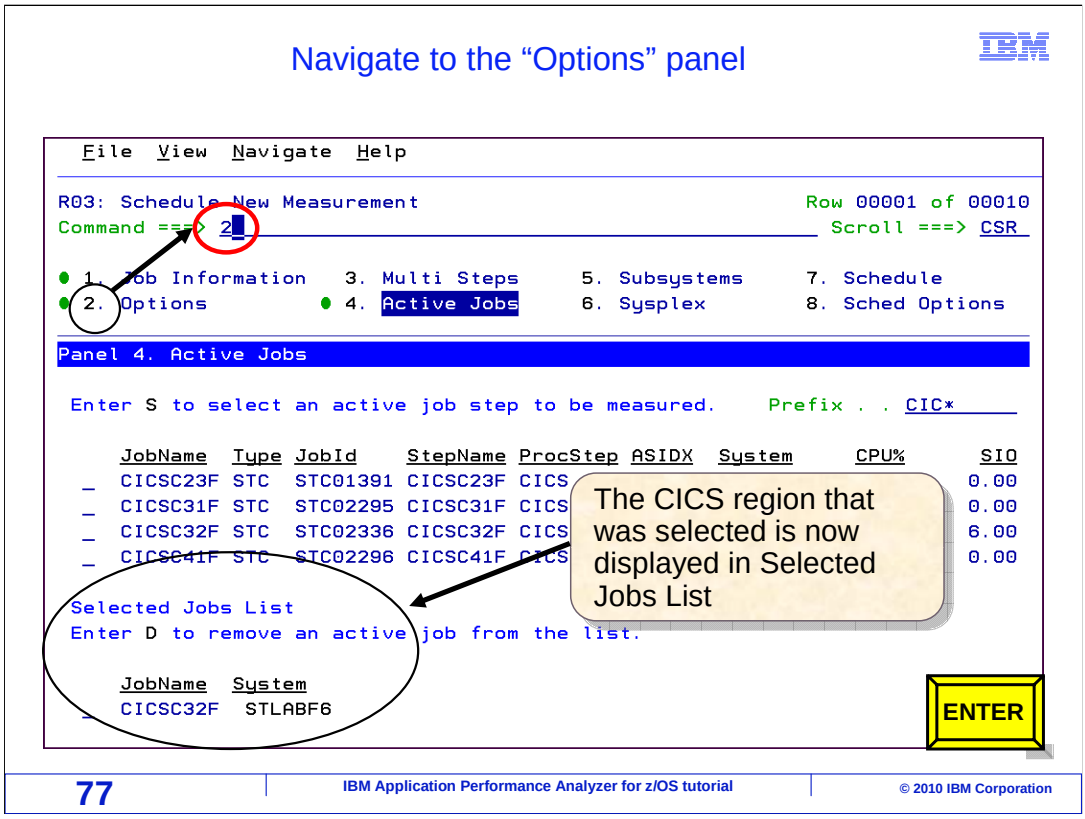


For CICS applications, specify the name of the CICS region in the job name field. Remember that if you specify a wildcard with an asterisk in the job name, that is a shortcut to panel four, which displays a list of active jobs and regions. In this example, 10,000 samples are specified with a monitoring duration of five minutes. When you are monitoring CICS regions, especially if it is a busy region, consider collecting somewhat more samples than you will for a simple batch application. Since a wildcard was used in the job name, when you press enter…



Panel four, Active Jobs is displayed. Since a region was selected from panel four, APA knows that it should begin monitoring immediately.

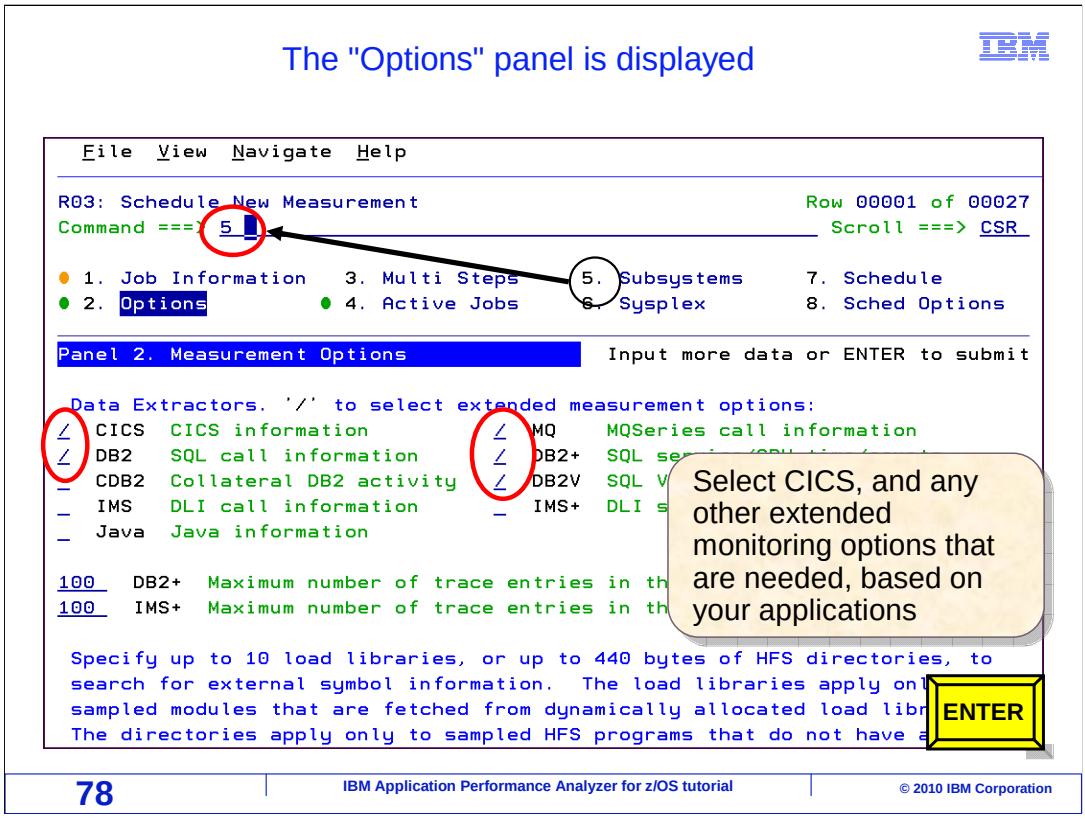
Select the CICS region where the application is running. Of course, to get meaningful data, the transactions that you are interested in need to run while APA is collecting data. Press Enter.



Notice that the CICS region you selected is now displayed in Selected Jobs List.

It is very important that you do not forget to specify the CICS data extractor when you are monitoring a CICS application. If you do not, APA will still gather a lot of information, but nothing that is CICS-specific such as transaction codes and EXEC CICS calls. To turn on the CICS data extractor, go to panel two.

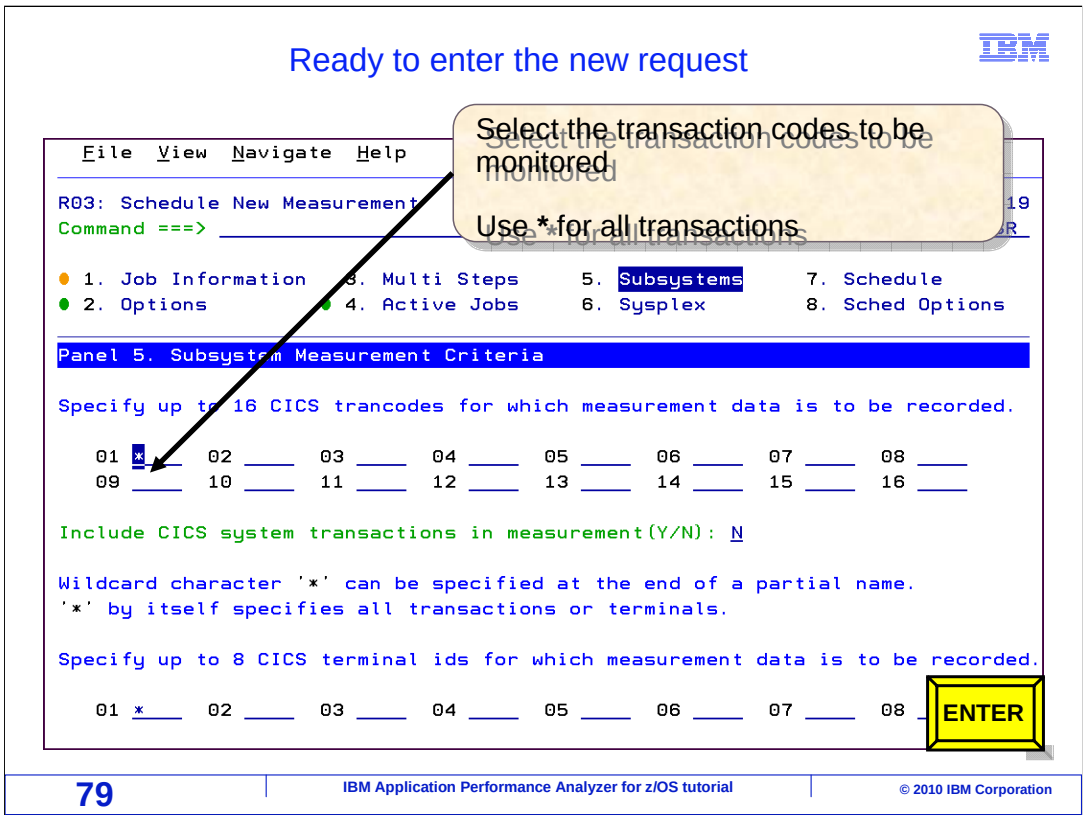
Type two on the command line, and press Enter.



From panel two, you must turn on not only the CICS extractor, but also any others that your application will need.

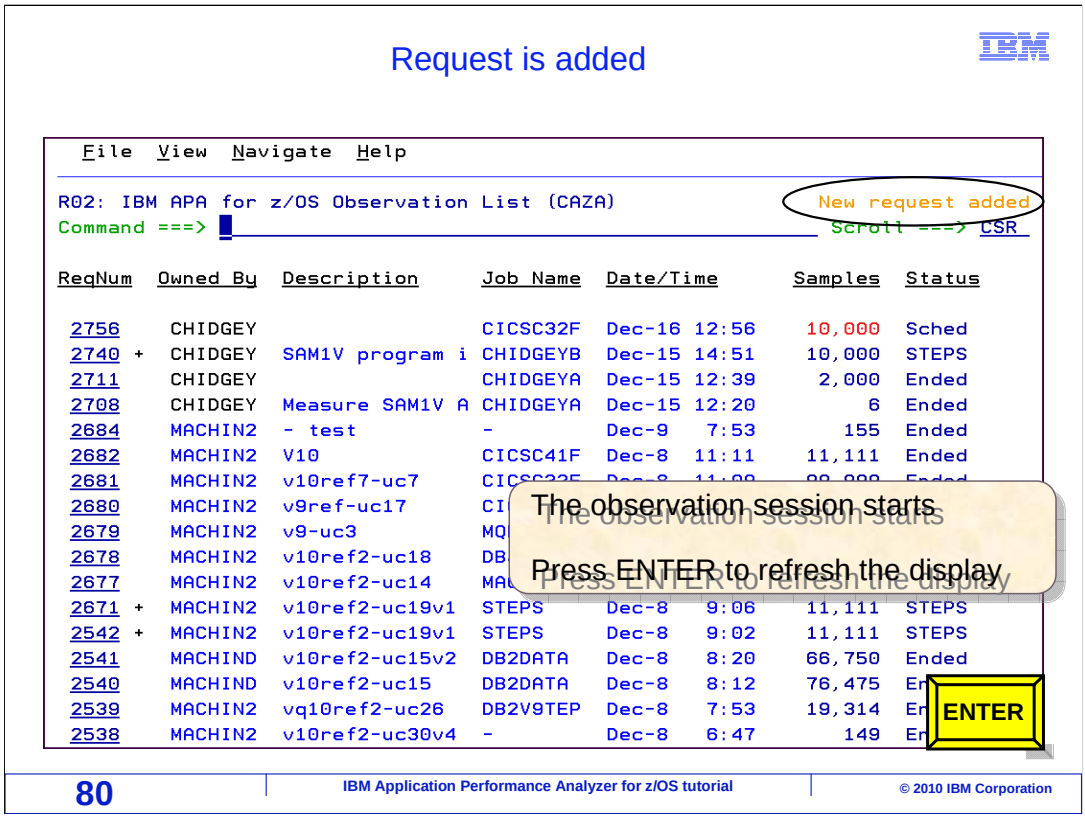
In this example, the DB2 and MQSeries extractors are being selected as well using slashes.

You can also specify specific transactions you might want to monitor by navigating to the CICS Options panel. To do this, just type a five on the command line. Press Enter.



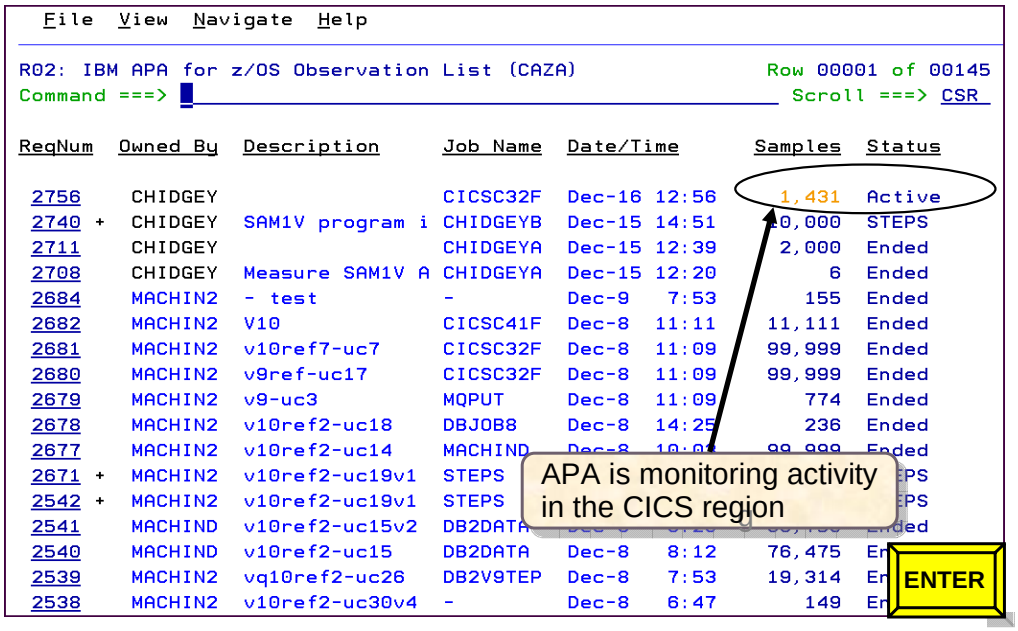
Panel five, CICS Options, is displayed. Here you can specify up to 16 CICS transactions to monitor. If you want to measure all transactions, place an '*' in the first transaction field to monitor all transactions. Like so.

At this point, APA is ready to accept the request. When you are ready, press enter.

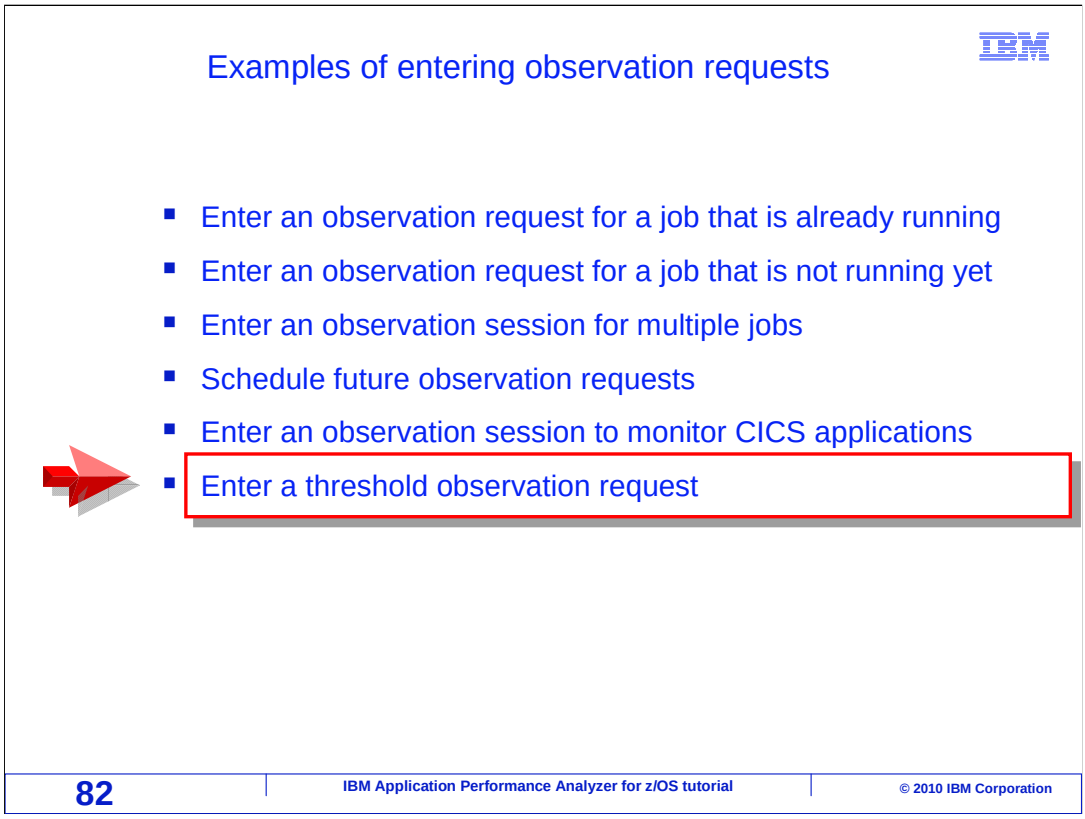


And the new request is added. Remember that you can refresh the display just by pressing enter again.

Observation session is active

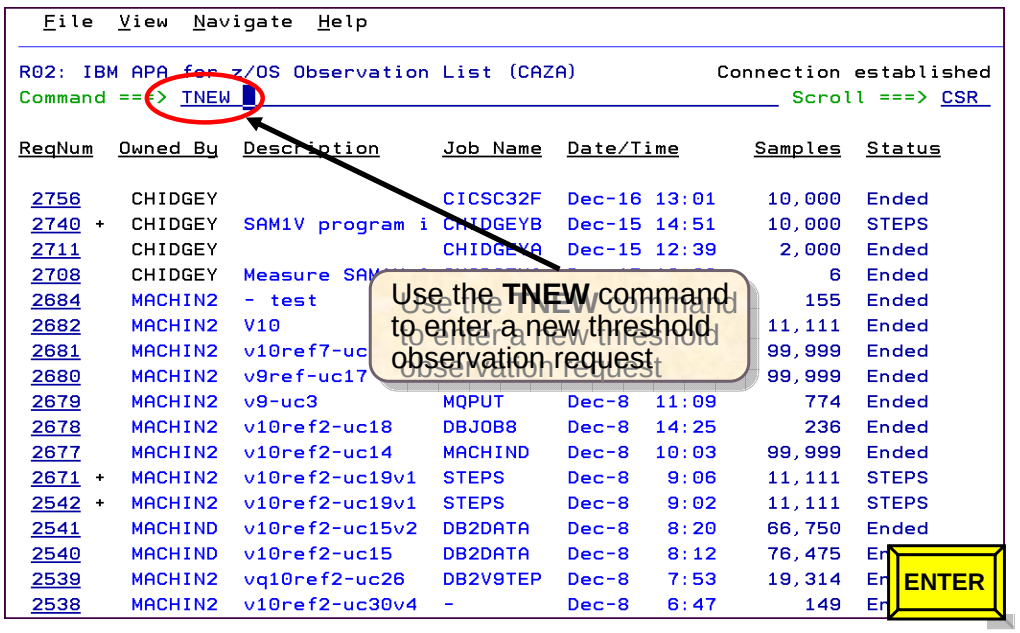


Now, the session has gone active, and APA is collecting performance data from the CICS region.

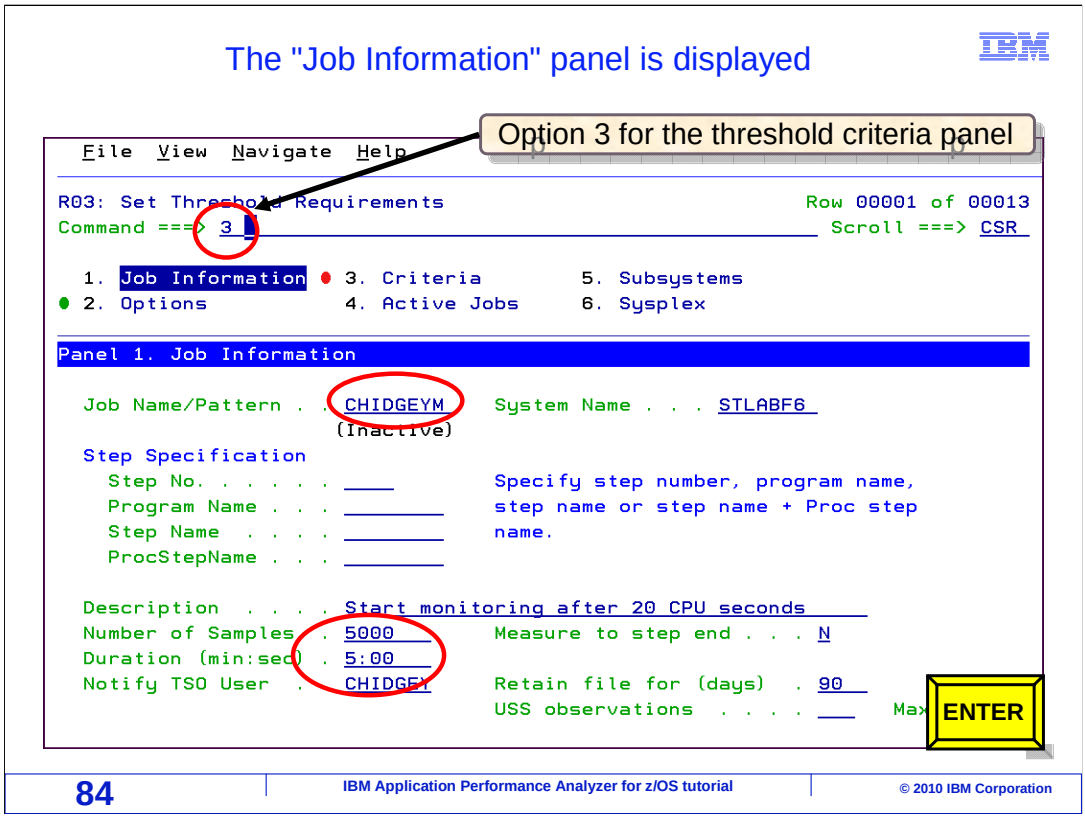


In the next walk-through, you will learn how to enter a threshold observation request. The Threshold observation request process uses most of the panels described in the previous examples. But there are a few differences that must be noted.

Enter a NEW observation request

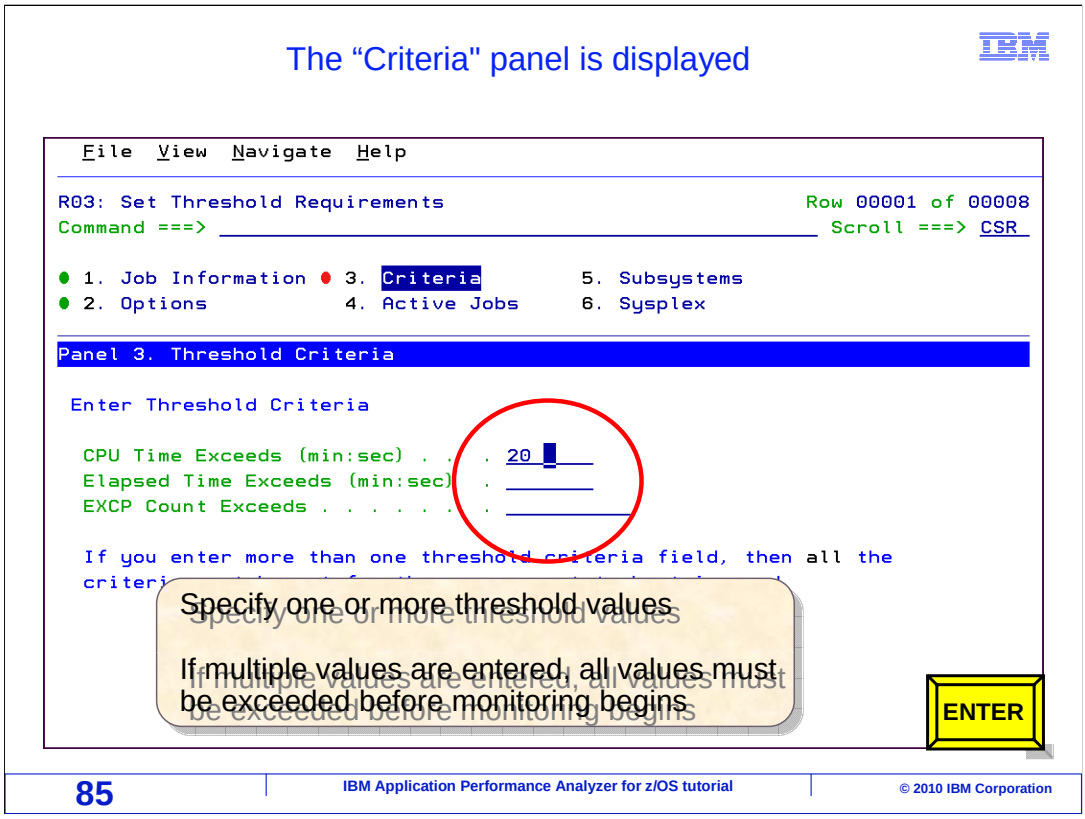


In the previous examples, a new observation request began by typing the NEW command on the command line. To enter a threshold observation request, you begin by entering the TNEW command on the command line. After pressing Enter…..



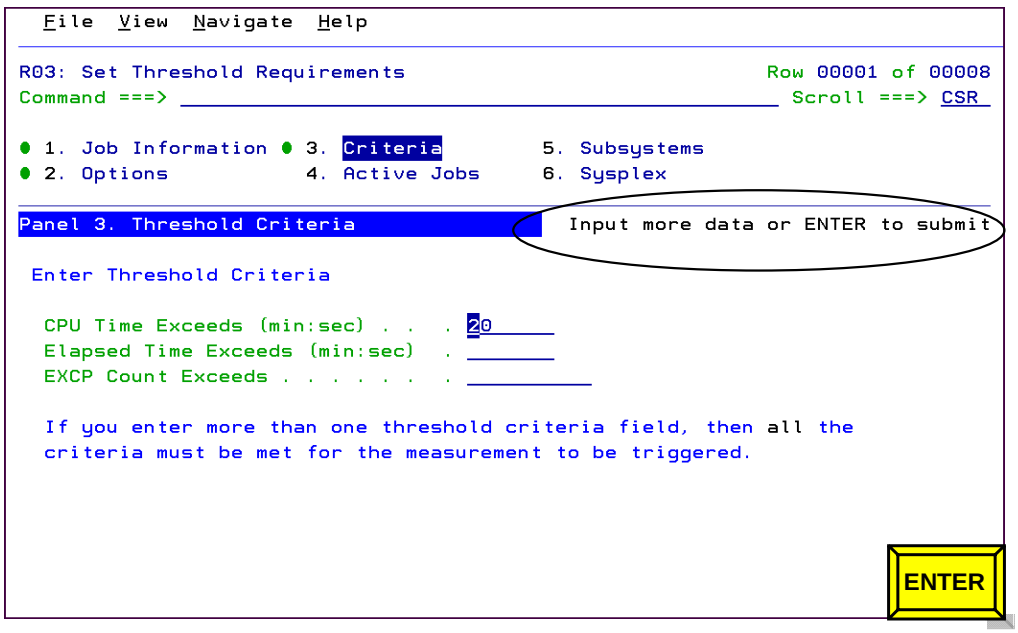
Panel one, The Job information panel is displayed. Notice that the panel group is very similar to the standard Schedule New Measurement panel group in the previous examples. However, the differences are that the Multi-Step and Schedule information panels are not used for Threshold Observation requests and therefore are not available. Panel three, the Criteria panel, is specific to Threshold Observation requests. After entering the standard data to describe the measurement request, you must enter the Threshold Criteria.

In this example, the job name, the number of samples to be collected, and the duration is specified. To enter a threshold criteria, go to panel three: the criteria panel. Type the number three on the command line, and press Enter.

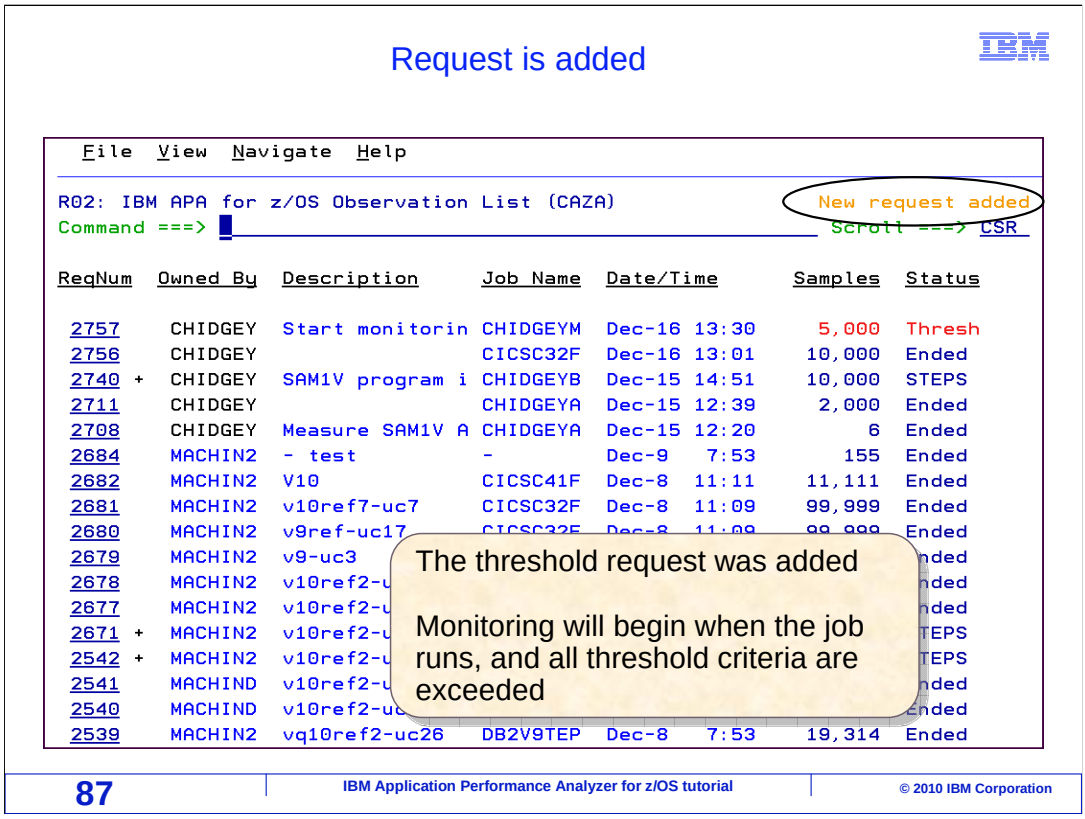


While on the criteria panel, you can specify a threshold that must be exceeded in order for the monitoring session to begin. You can specify one or more threshold values. All values must be exceeded before the monitoring session will start. In this example, to specify that the job should be monitored if it’s CPU Time exceeds 20 seconds, “20” is typed into the “CPU Time Exceeds” field. Enter.

Ready to enter the threshold request



At this point, APA is ready to accept the request, and displays the “Input more data” message. Just press enter.



And the new request was added. Notice that the status for this request is “Thresh”, which means it is a Threshold Observation request. Once the threshold has been exceeded, monitoring will begin.

Now you have gone through some examples for how to enter a new observation request. You have learned how to enter a new request for a batch job that is already running, a batch job that will run later, multiple batch jobs and how to schedule future requests. You have also learned how to enter a request for a CICS application and how to enter a threshold observation request.

That is the end of this section, entering observation requests.

Feedback

Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send email feedback:

mailto:iea@us.ibm.com?subject=Feedback_about_APAv10s03EnteringRequests.ppt

This module is also available in PDF format at: ../APAv10s03EnteringRequests.pdf

You can help improve the quality of IBM Education Assistant content by providing feedback.

Trademarks, copyrights, and disclaimers