

Does the JVM Heap size need changed??

(running out of memory for WAS jobs?)

First determine if there is a need to increase the memory for JVM...or, maybe we should always increase if we have more than 1 instance...??

Is the client getting message indicating a memory issue?

Is the WAS instance job on the iSeries soaking up a lot of CPU? 70% or higher?

Does the client have a msg in system operator messages showing the WAS instance and the JAVA using 85% or higher of the HEAP as shown below:

```
Service Agent is analyzing your system product activity log entries.
930436/QEJBSVR/WAS61SVRM2 JAVA USED 85% OF THE GC HEAP.  USED HEAP
  SIZE (KB) AND MAX HEAP (KB) : 222956 262144.
HEAP MONITOR ENDED FOR 930436/QEJBSVR/WAS61SVRM2 IN SUBSYSTEM QWAS61 IN
  POOL *BASE POOL ID=2 POOLSIZE (MB)=13111 RESERVED (MB)=38 HEAP
  TOTAL (MB)=256 FREE (MB)=30 USEDHEAP (MB)=225 MAXHEAP (MB)=256
  INITHEAP (MB)=50
HEAP MONITOR STARTED FOR 960659/QEJBSVR/WAS61SVRM2 IN SUBSYSTEM QWAS61 IN
  POOL *BASE POOL ID=2 POOLSIZE (MB)=13144 RESERVED (MB)=38 HEAP
  TOTAL (MB)=50 FREE (MB)=19 USEDHEAP (MB)=30 MAXHEAP (MB)=256 INITHEAP (MB)=50
All jobs at work station QPADEV00JV ended.
```

More

Put the cursor on the msg and hit F1 to get additional info...

```
Additional Message Information

Message ID . . . . . : CPI8859
Date sent . . . . . : 01/31/12      Time sent . . . . . : 04:40:30

Message . . . . . : HEAP MONITOR ENDED FOR 930436/QEJBSVR/WAS61SVRM2 IN
  SUBSYSTEM QWAS61 IN POOL *BASE POOL ID=2 POOLSIZE (MB)=13111 RESERVED (MB)=38
  HEAP TOTAL (MB)=256 FREE (MB)=30 USEDHEAP (MB)=225 MAXHEAP (MB)=256
  INITHEAP (MB)=50
```

Type in WRKSBS and enter

And roll down to the WAS subsystem as shown:

```

Work with Subsystems
System: S06D7845

Type options, press Enter.
4=End subsystem 5=Display subsystem description
8=Work with subsystem jobs

Opt Subsystem Total Storage (M) -----Subsystem Pools-----
  QUSRWRK .00 2
  QWAS61 .00 2

```

Place an 8 in front of the WAS subsystem and enter (QWAS61)

Place a 5 on the job in the subsystem and enter as shown:

```

Work with Subsystem Jobs
System: S06D7845
Date: 02/01/12 11:45:21

Subsystem . . . . . : QWAS61

Type options, press Enter.
2=Change 3=Hold 4=End 5=Work with 6=Release 7=Display message
8=Work with spooled files 13=Disconnect

Opt Job User Type -----Status----- Function
  SERVER1 QEJBSVR BATCH ACTIVE PGM-jvmStartPa
  WAS61SVRM2 QEJBSVR BATCH ACTIVE PGM-jvmStartPa

```

Take Opt 10 to display job log for this job...then F10 to display all messages and you will see the following:

```
Display All Messages

Job . . . : WAS61SVRM2   User . . . : QEJBSVR   System: S06D7845
Number . . . : 960659

Job 960659/QEJBSVR/WAS61SVRM2 started on 01/31/12 at 04:42:05 in subsystem
QWAS61 in QWAS61. Job entered system on 01/31/12 at 04:42:05.
Job 960659/QEJBSVR/WAS61SVRM2 submitted.
>> CALL PGM(QWAS61A/QWASSTRSVR) PARM('-profilePath' '/QIBM/UserData/WebSphere
/AppServer/V61/Express/profiles/WAS61SVRM2' '-server' 'WAS61SVRM2')
ACGDTA for 960659/QEJBSVR/WAS61SVRM2 not journaled; reason 1.
Java Virtual Machine is IBM Technology for Java. PID(23931)
Server starting with user profile QEJBSVR and JDK 1.5.0.
WebSphere application server WAS61SVRM2 ready.
```

Then move your cursor onto the msg 'WebSphere application server WASxxxx ready...to see the following port:

```
Additional Message Information

Message ID . . . . . : WAS0106
Date sent . . . . . : 01/31/12   Time sent . . . . . : 04:42:41

Message . . . . . : WebSphere application server WAS61SVRM2 ready.

Cause . . . . . : WebSphere application server WAS61SVRM2 in job
960659/QEJBSVR/WAS61SVRM2 is ready to handle administrative requests on port
10016.
```

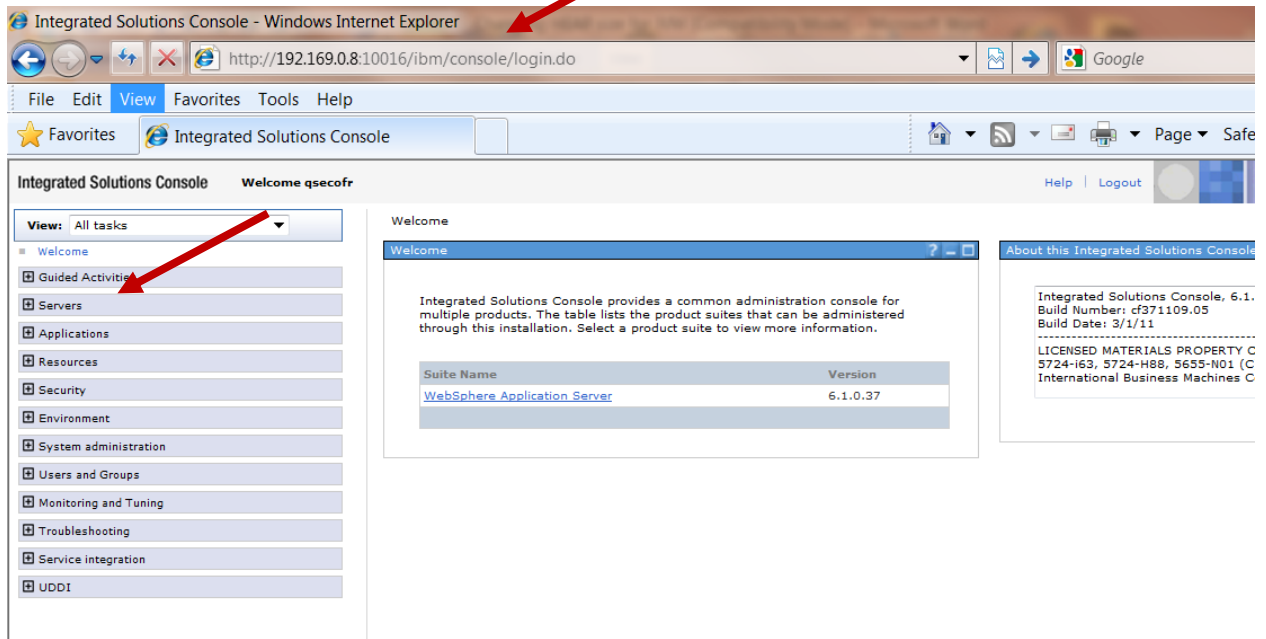
Now type the following in a browser session...using the port # in the message.

<http://192.169.0.8:10016/admin> (admin MUST be lower case)

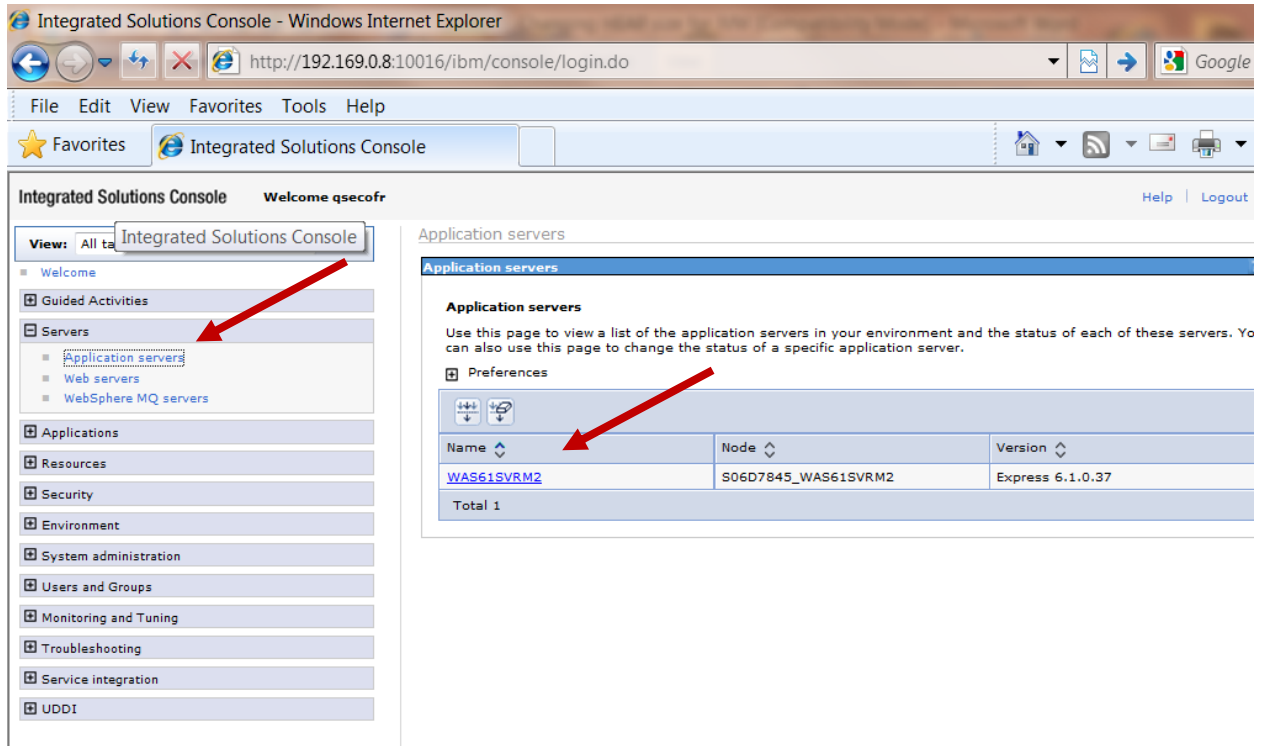
log in/user ID qsecofr

Click on Servers on the left panel

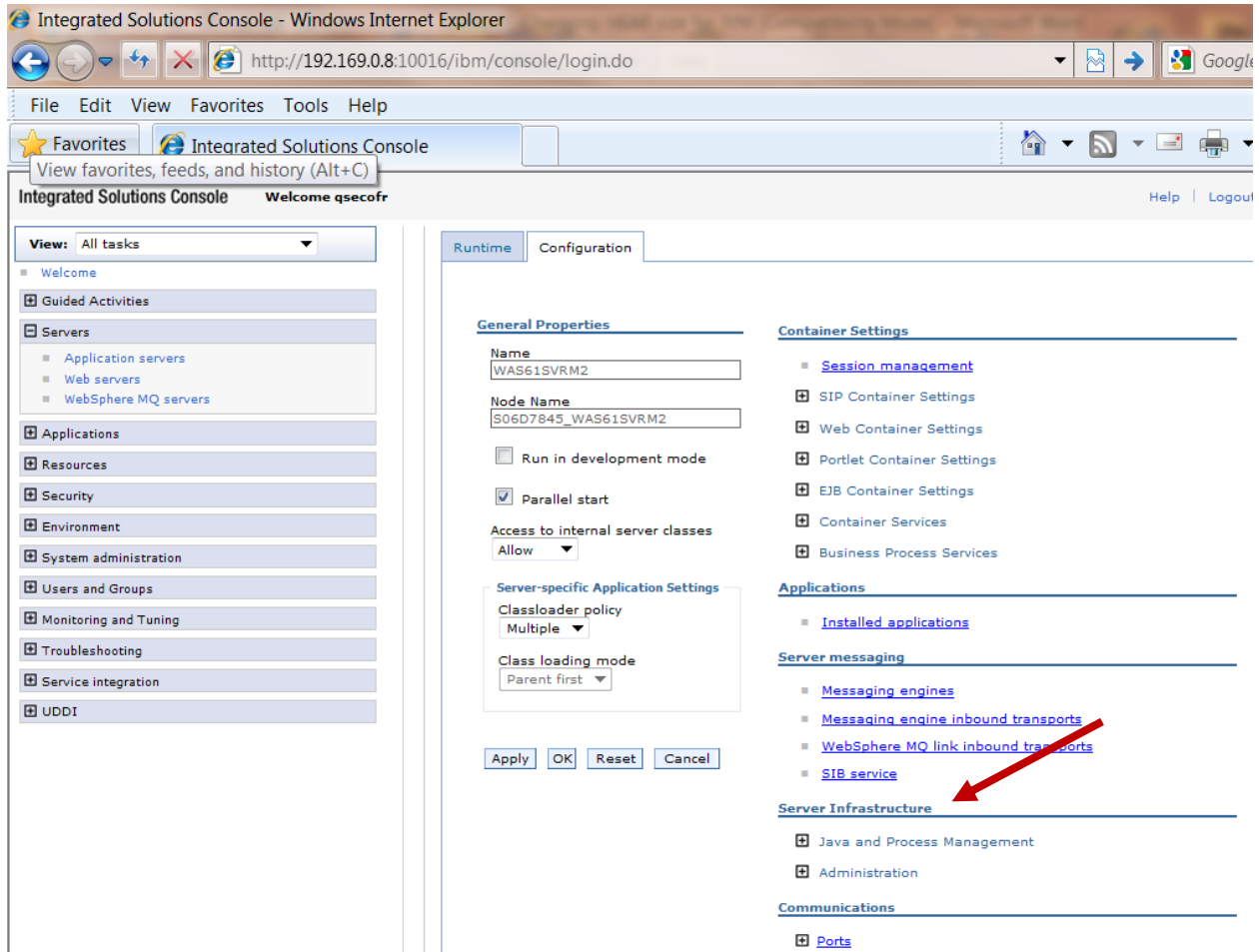
Select application servers



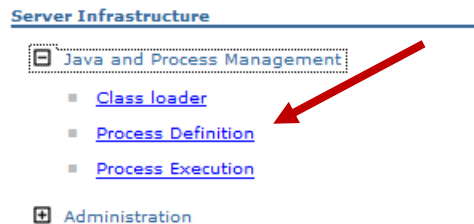
Select Applications server and then click on the server listed in the window on the right



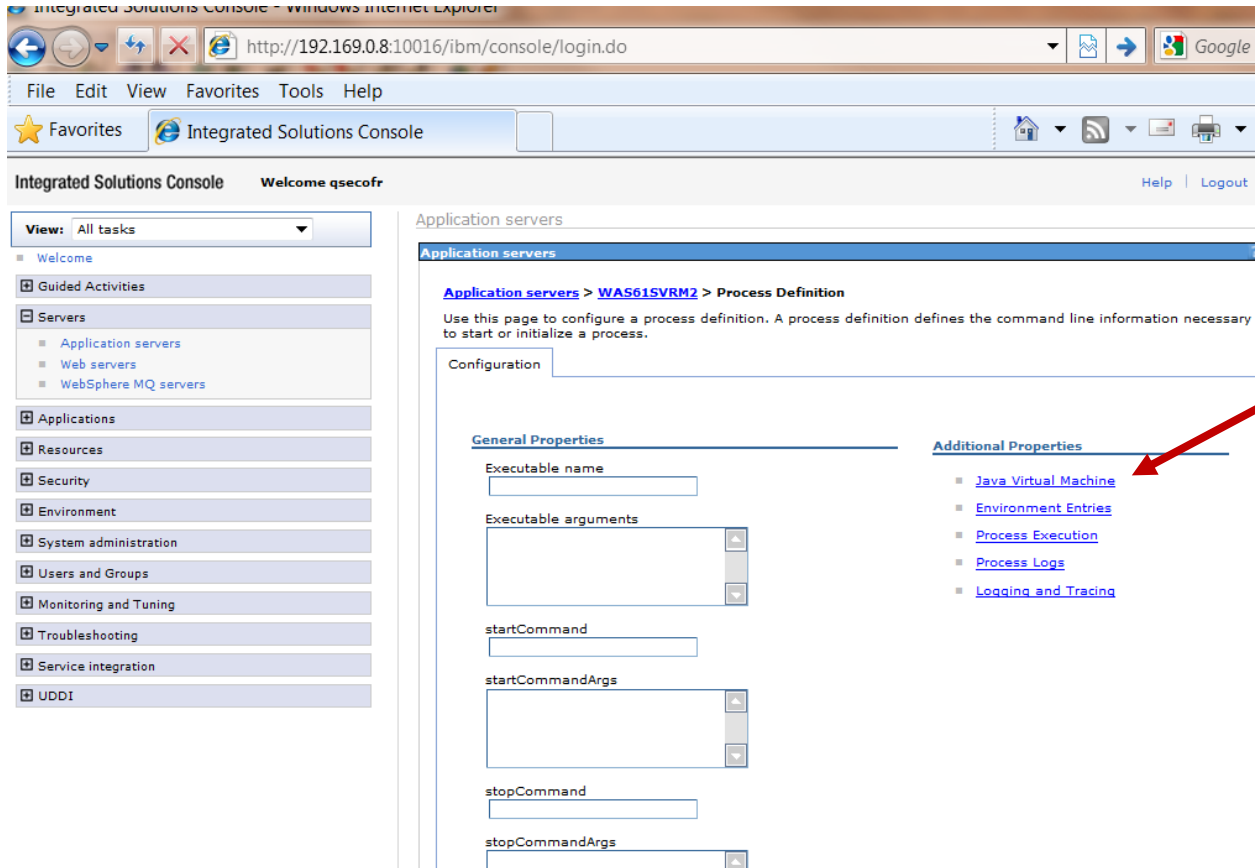
Now go to 'Server infrastructure' and select 'Java and process mgmt'



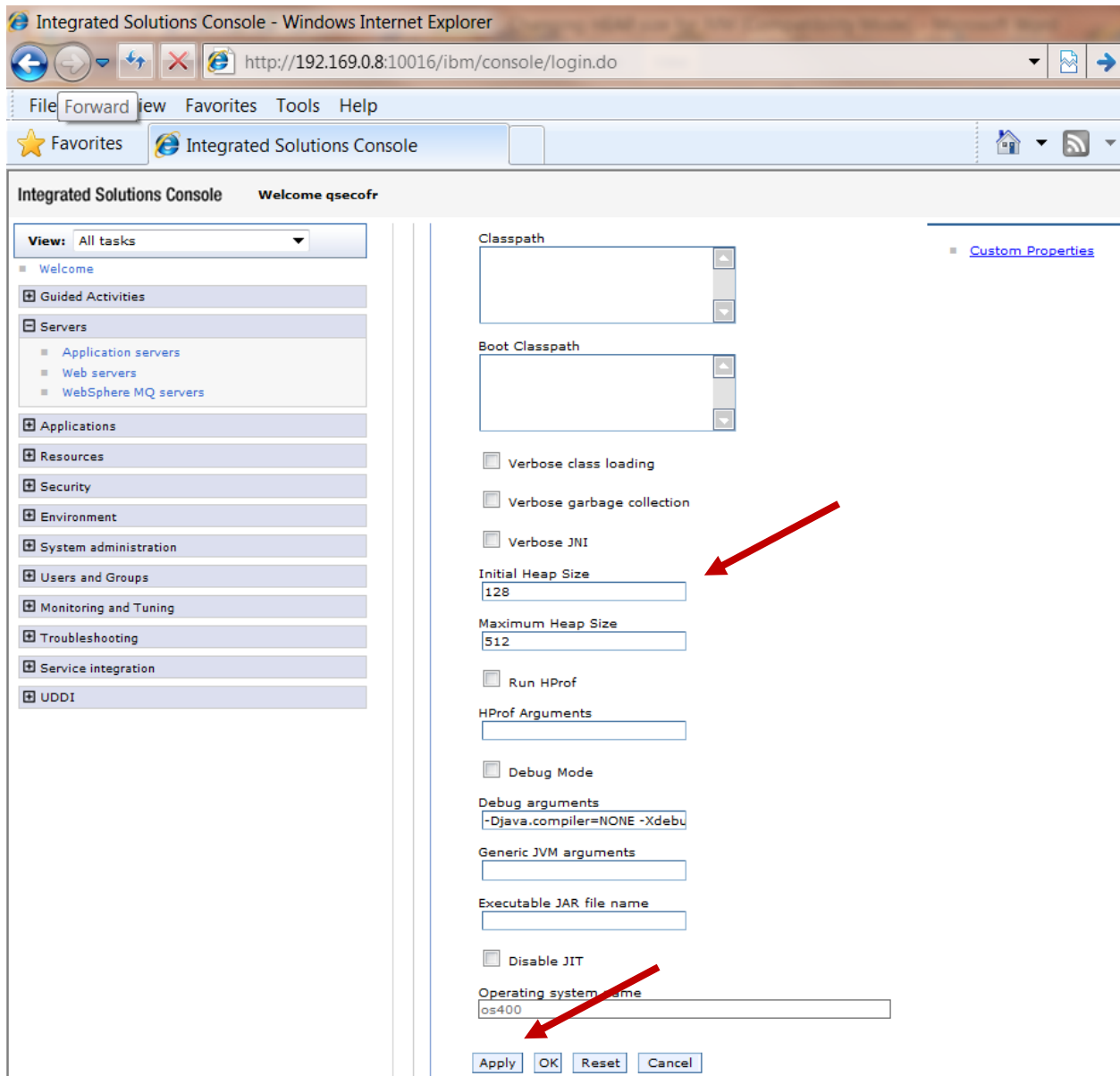
Select 'process definition'...



Then the following screen will appear. Go to additional properties on the right...and select JVM (Java Virtual machines)



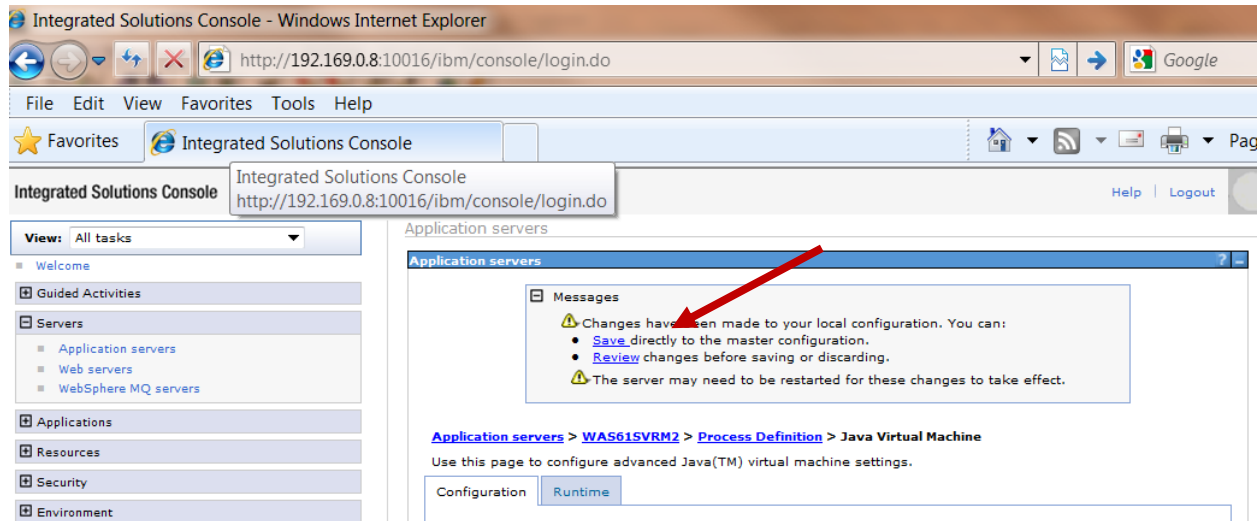
The next screen will show the 2 fields that need changed. The 'initial heap size' and the 'maximum heap size'. By default the values are 50 and 256 respectively...and will also be blank if the default is the current setting.



Change the values to 128 for Initial heap size and 512 for Maximum heap size.

Then click 'APPLY'

Roll to the top to see the SAVE message appear. It will be highlighted.



Click on 'Save'.

Wait until it clears...then you can get out.

(if the SAVE window does not clear, try 'refreshing' and then screen will come back. Then click on 'save' again...it should clear. Roll down to verify the settings are there...and then go out and back in to re-verify.

NOTE: MUST restart for JVM changes to take effect....