Deploying the rmireg.war file in BEA WebLogic 9.2.3 for Windows

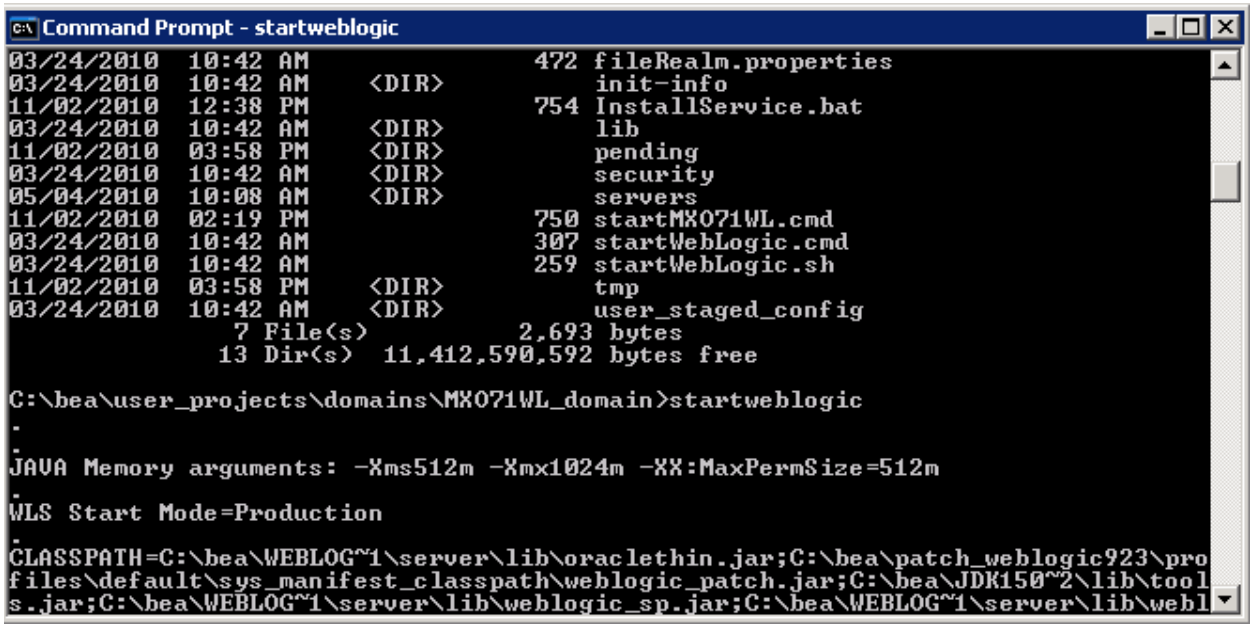
Definition of terms

- <Maximo_home> is used for the Maximo home. By default, the Maximo home is C:\IBM\SMP\maximo
- <WL_home> is used to indicate the location of WebLogic. By default, the WebLogic home is C:\BEA.
- <domain_name> is used to indicate the location of the Maximo domain in WebLogic. By default, the Maximo domain home is mydomain.
- <server_name> is the name of the server on which WebLogic has been installed.

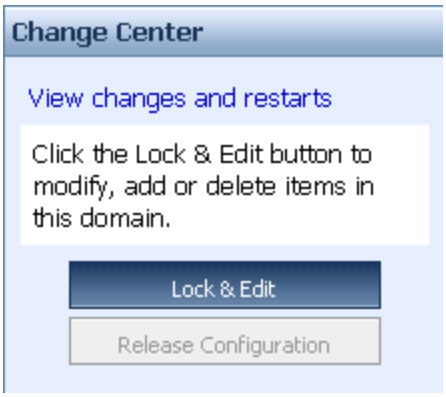
First, using <Maximo_home>/**deployment/buildrmiregwar.cmd**, build the <Maximo_home>**/deployment/default/rmireg.war** file. This is the file that will be deployed in WebLogic, and its priority must be set so that all Maximo servers will start after this server starts.

Creating the RMI Registry Web Application

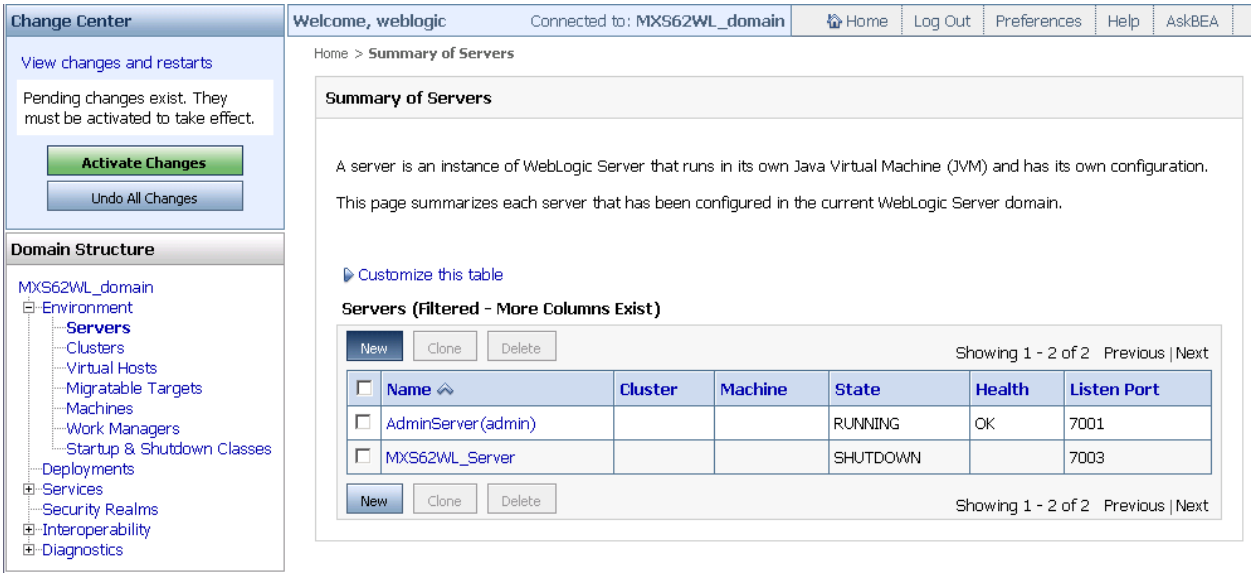
- Start the Oracle WebLogic Administrative (Admin) Server:
  - Open a command line prompt and navigate to <WL_home>\user_projects\domains\<domain_name>
- Execute **startWebLogic.cmd**.



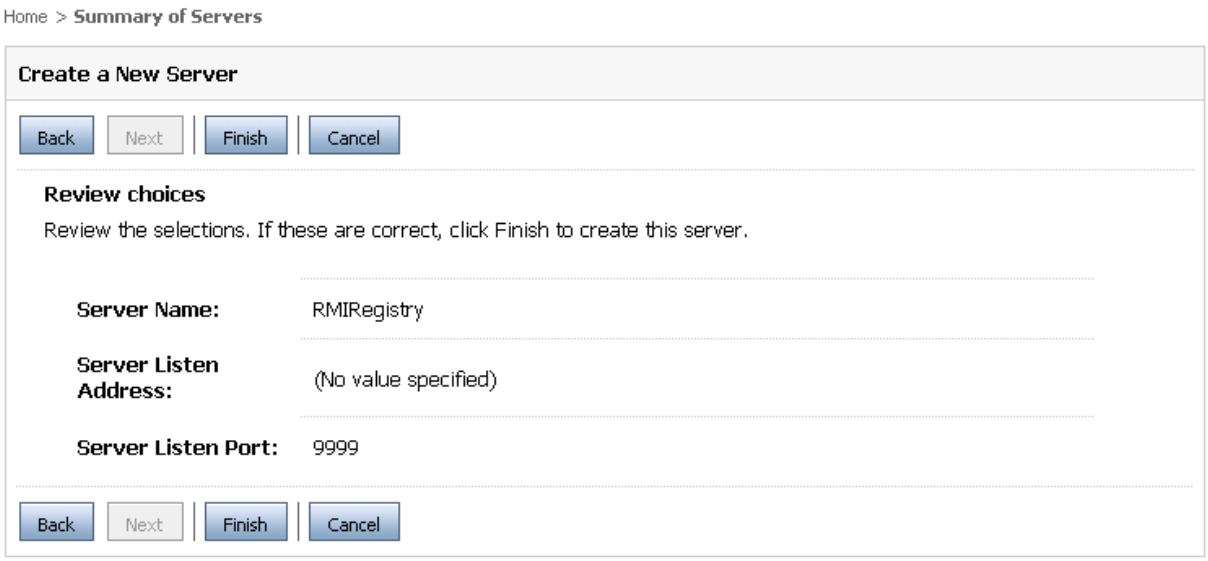
- Open the **WebLogic Administrative Console** (by default, http:// <server_name>:7001/console).
- Click **Lock & Edit**



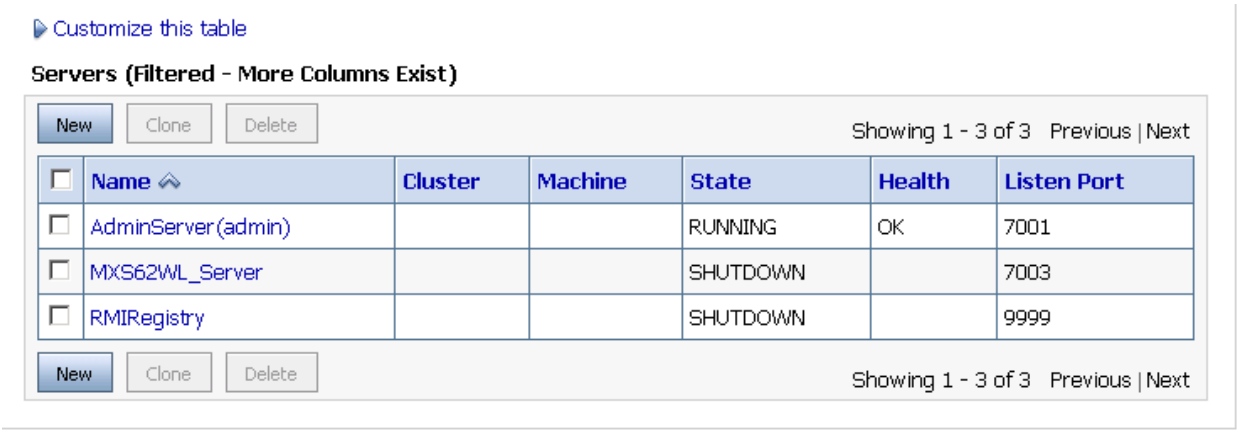
- Expand the **<domain_name>Environment>Servers** link



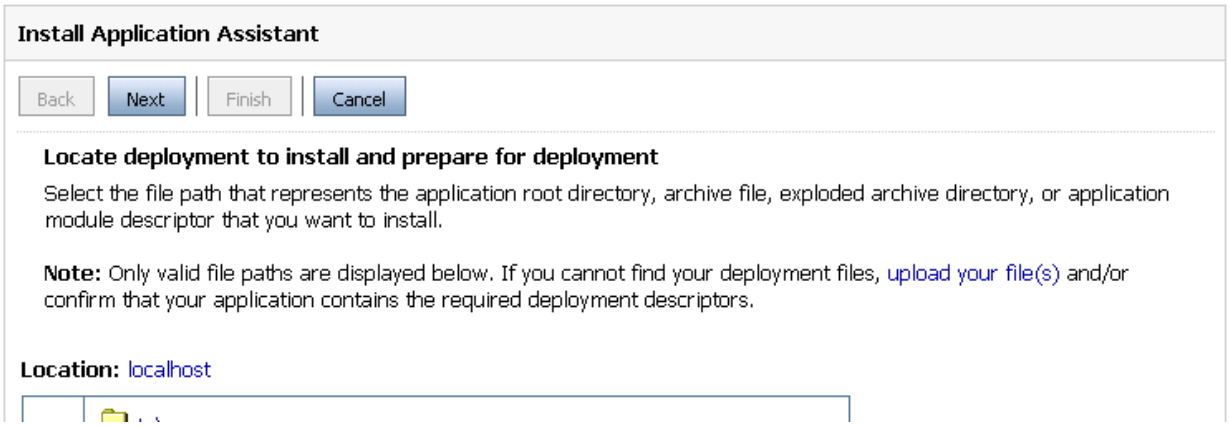
- Click **New**
- Enter **RMIRegistry** in the **Server Name** field
- Enter **9999** in the **Server Listen Port** field
- Leave the **No, this is a stand-alone server** Radio button selected.
- Click **Next**



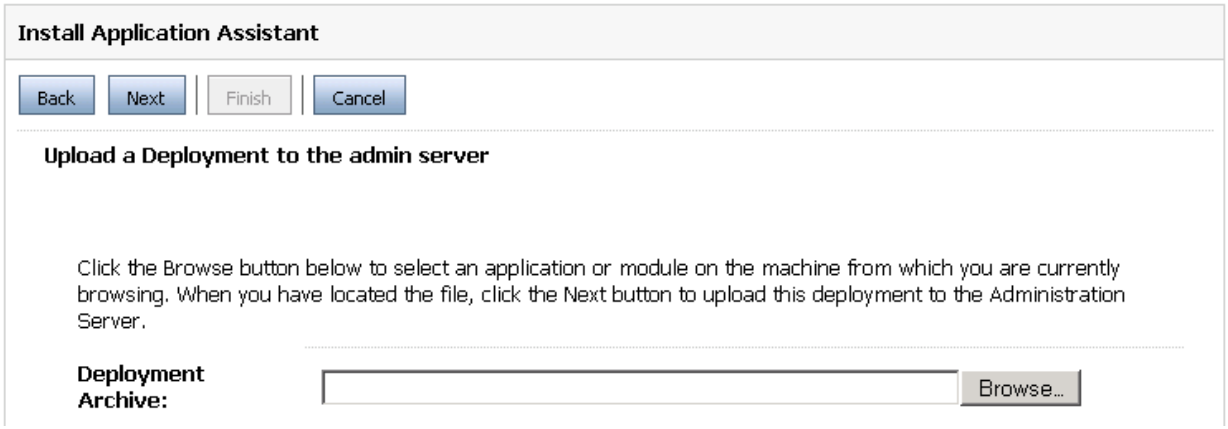
- Click **Finish**



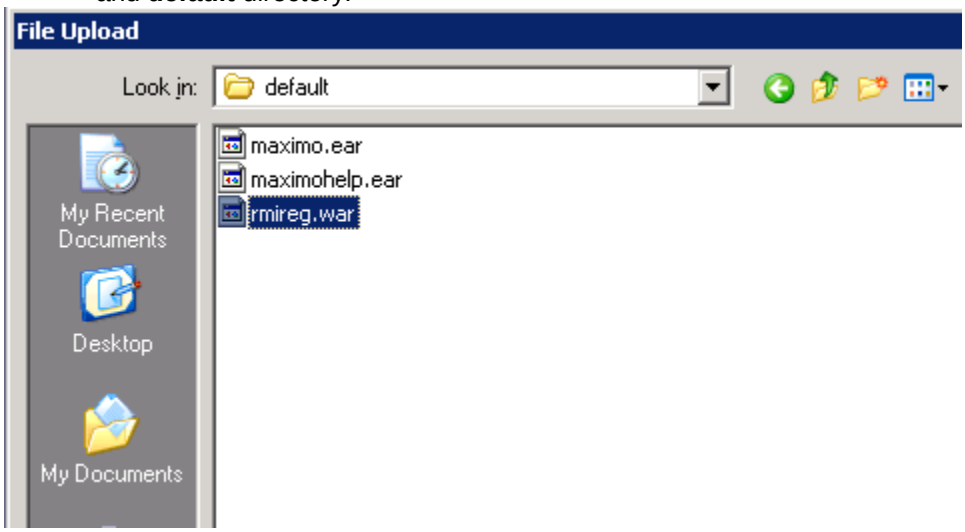
- Select **Deployments** on the left side of the console
- Click **Install**



- Select upload your file(s)

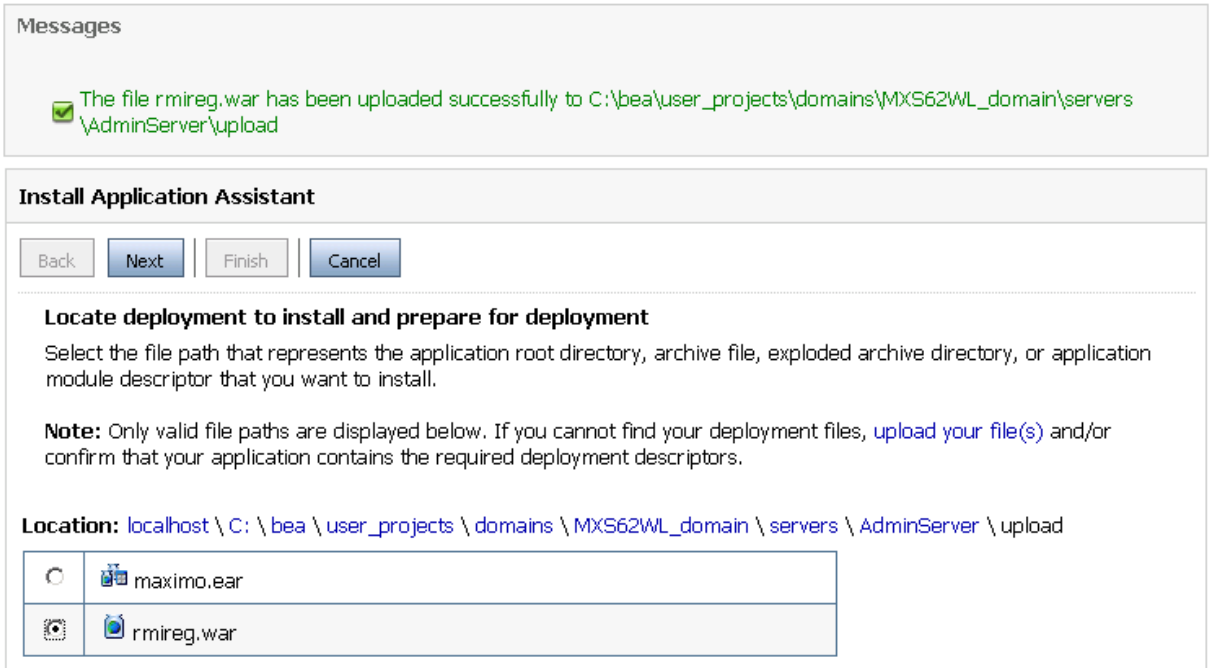


- Click on the **Browse…** button and navigate to your Maximo root directory, then the **deployment** and **default** directory.

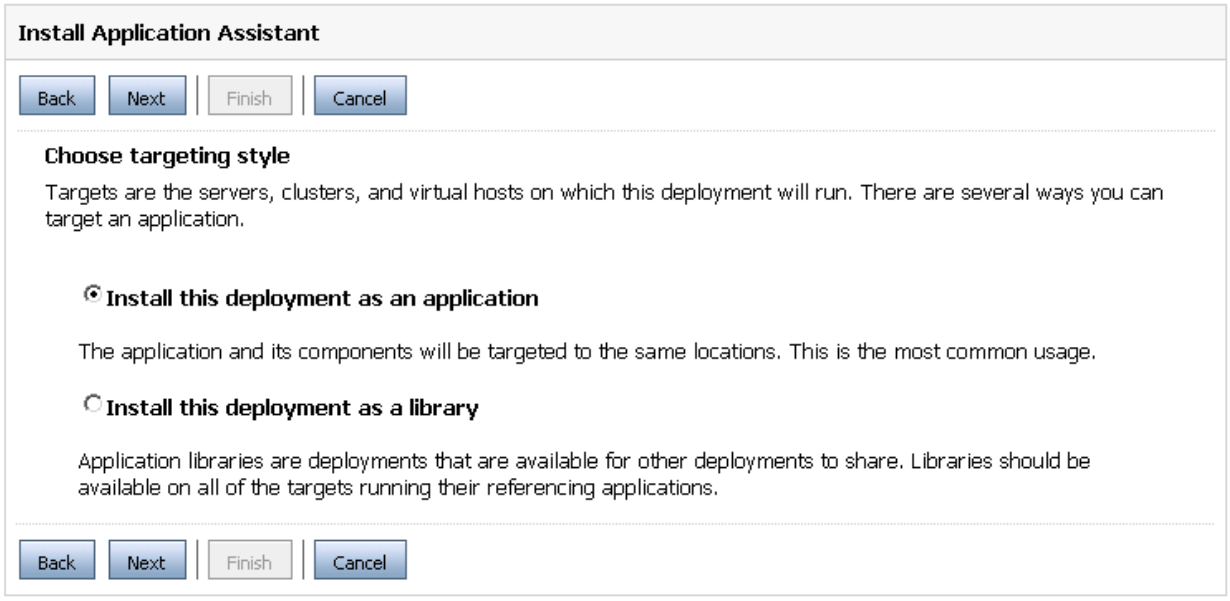


- Select the **rmireg.war** file and click **Open**

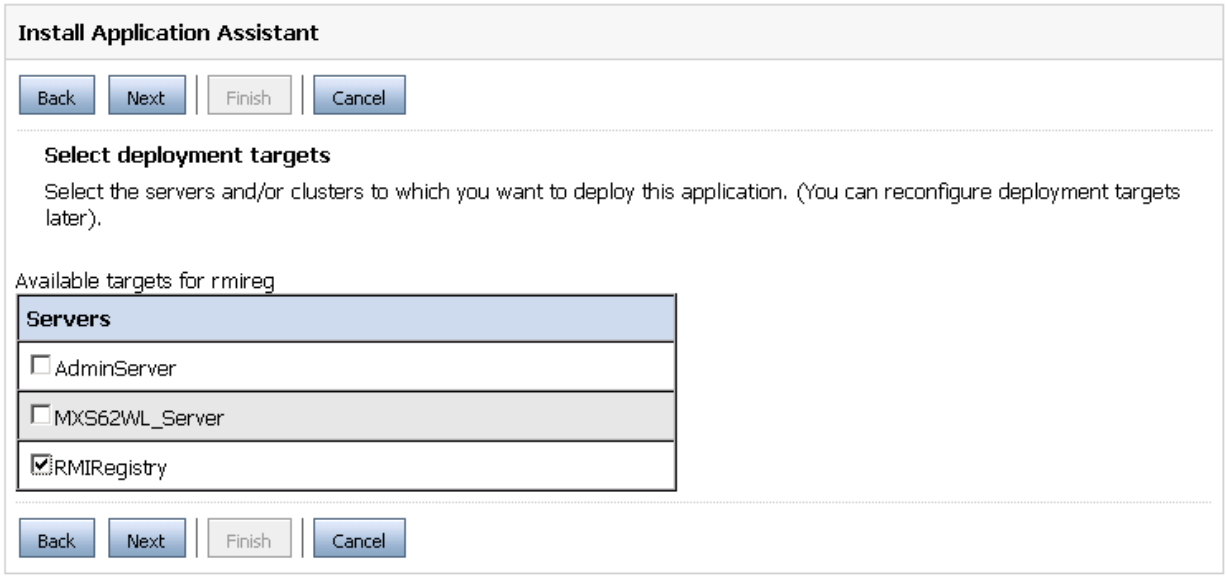
- Click **Next**
- Under **Location**, select rmireg.war.



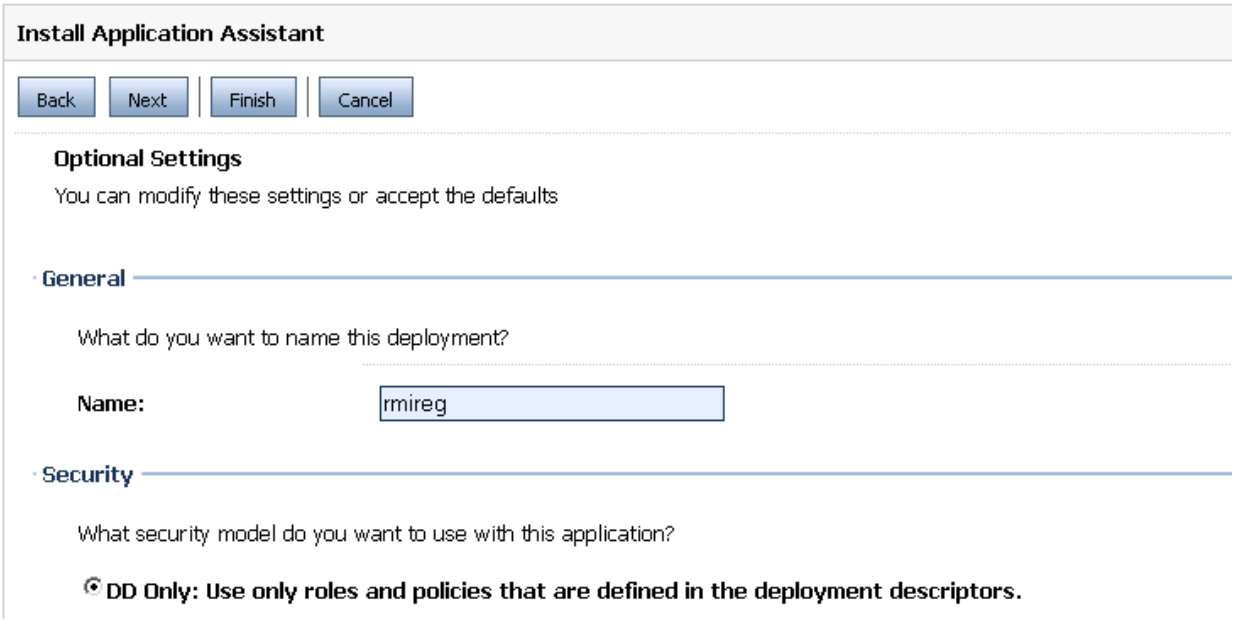
- Click **Next**



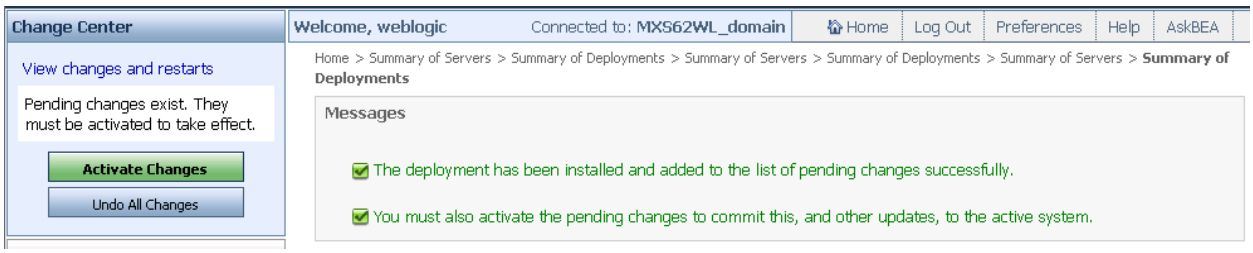
- Keep **Install this deployment as an application** selected.
- Click **Next**
- Select the **RMIRegistry** check box



- Click **Next**



- Accept the defaults and click **Finish**

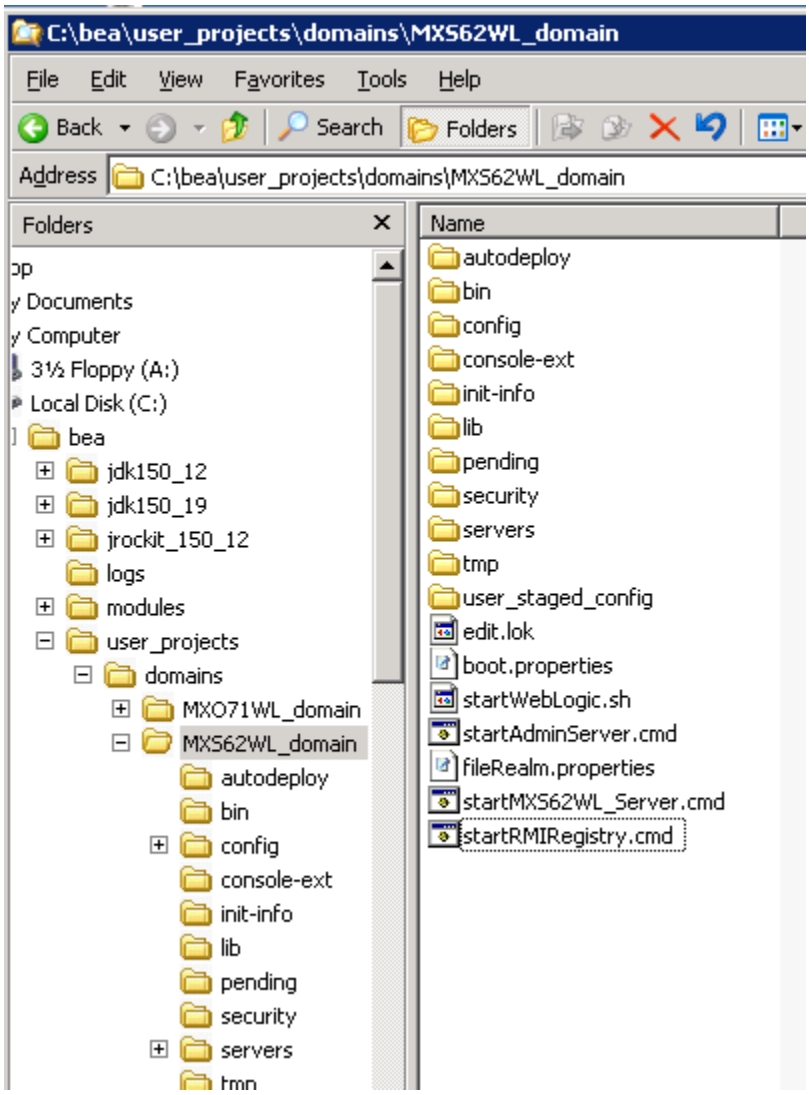


- Click on the **Active Changes** button and log out of the console.
- Exit the Console window.

- Stop the AdminServer command-line session.

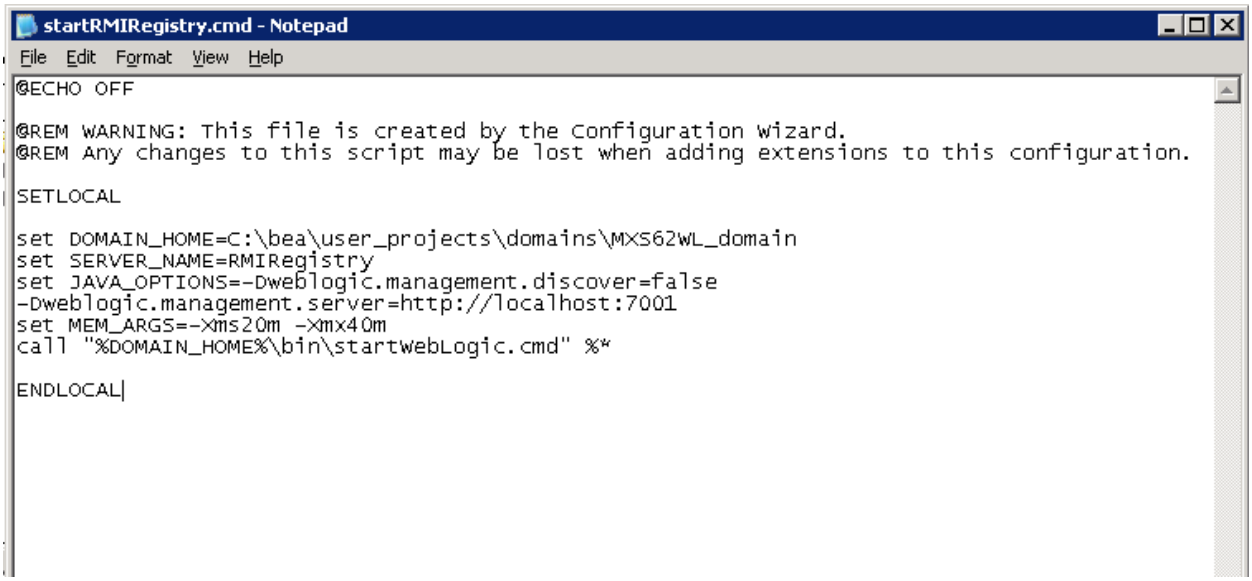
Setting up and Starting the RMI Registry Web Application

- Open **Windows Explorer**
- Navigate to "**{drive letter}:\bea\user_projects\domains\{domain name}**"
- Copy the **startWebLogic.cmd** file
- Paste it back as "**Copy of startWebLogic.cmd**"
- Rename the new copy as "**startRMIRegistry.cmd**"



- Edit the **startRMIRegistry.cmd** file
- Change the **SERVER_NAME** parameter to **set SERVERNAME=RMIRegistry**

- Add **set JAVA_OPTIONS=-Dweblogic.management.discover=false -Dweblogic.management.server=http://localhost:7001** after
- Change the **MEM_ARGS** parameter to **set MEM_ARGS=-Xms20m –Xmx40m**



- Save and close the file

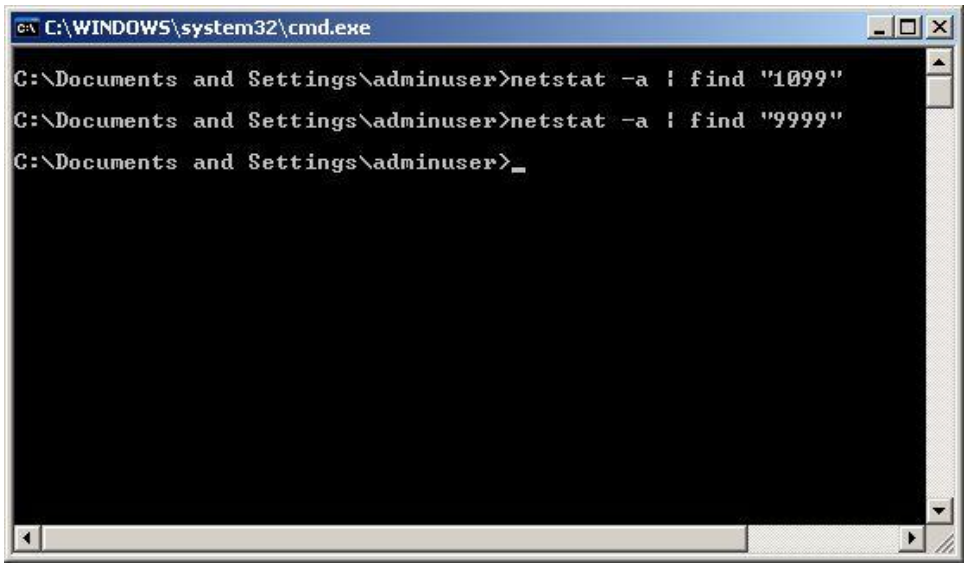
Confirm that no services are using the ports that will be used by RMI

NOTE: If Maximo is using a different RMI port than the default 1099, an entry must be made in the Maximo Properties application, and the rmireg.war file as well as the maximo.ear files must be rebuilt. That port must be substituted for the 1099 port used here.

NOTE: If port 9999 is in use by other Windows services or if a different port is selected when the RMIRegistry server is created, that port must be substituted for the 9999 port used here.

Using the “netstat” command and piping it through a “find” command can display the port usage. Use the following 2 commands to find the status of the ports to be used. Neither of the ports should return any results.

Netstat –a | find “1099”
Netstat –a | find “9999”



- Start the BEA WebLogic Server by opening a command prompt and navigating to the {drive letter}:/bea/user_projects/domains/{domain name}.
- Execute the **startWebLogic.cmd** file (shown above as StartAdminServer.cmd).
- Open a new command prompt window
- Navigate to {drive letter}:\bea\user_projects\domains\{domain name}
- Execute **startRMIRegistry.cmd**

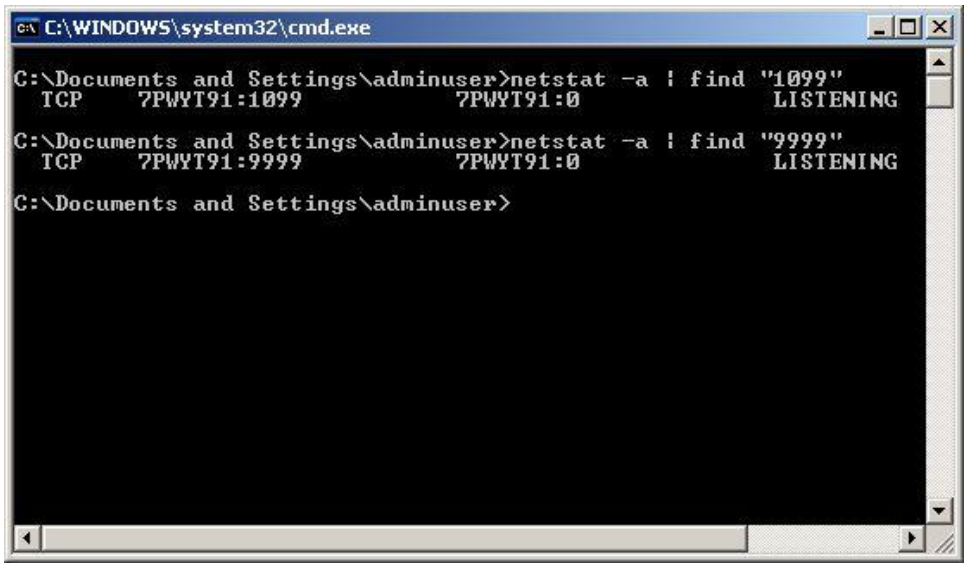
Confirm that the RMI services are using the ports

NOTE: If Maximo is using a different RMI port than the default 1099, an entry must be made in the maximo.properties file and the rmireg.war file as well as the maximo.ear files must be rebuilt. That port must be substituted for the 1099 port used here.

NOTE: If port 9999 is in use by other Windows services or if a different port is selected when the RMIRegistry server is created, that port must be substituted for the 9999 port used here.

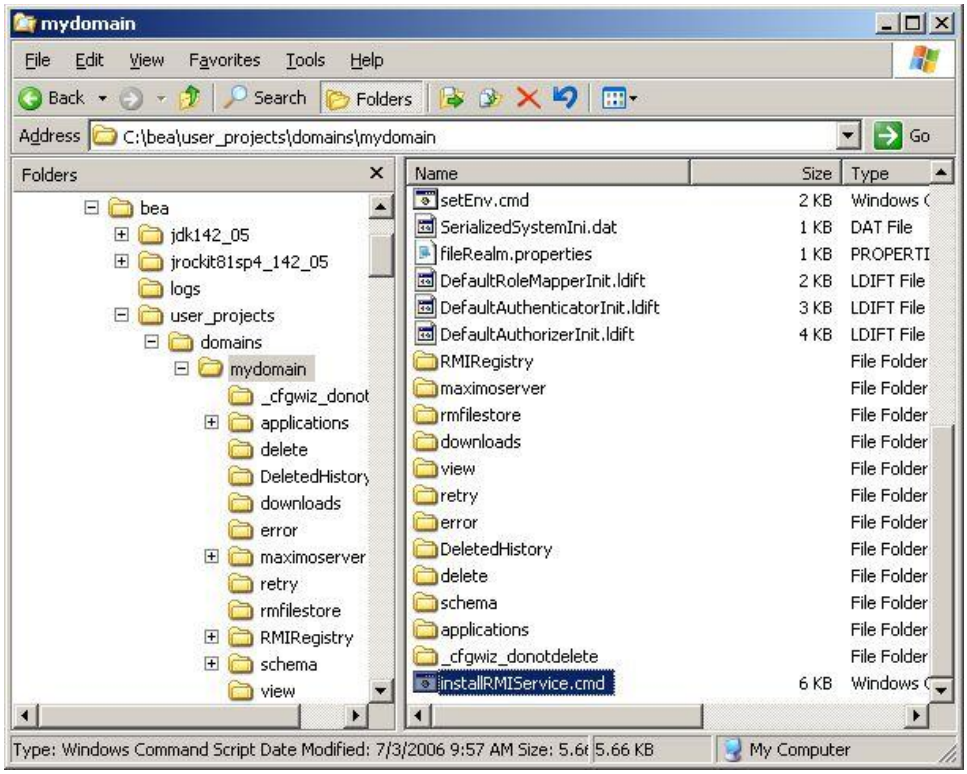
Using the “netstat” command and piping it through a “find” command can display the port usage. Use the following 2 commands to find the status of the ports to be used. Both of the ports should return a status of “**LISTENING**”.

Netstat –a | find “1099”
Netstat –a | find “9999”



Need to add section on creating the service

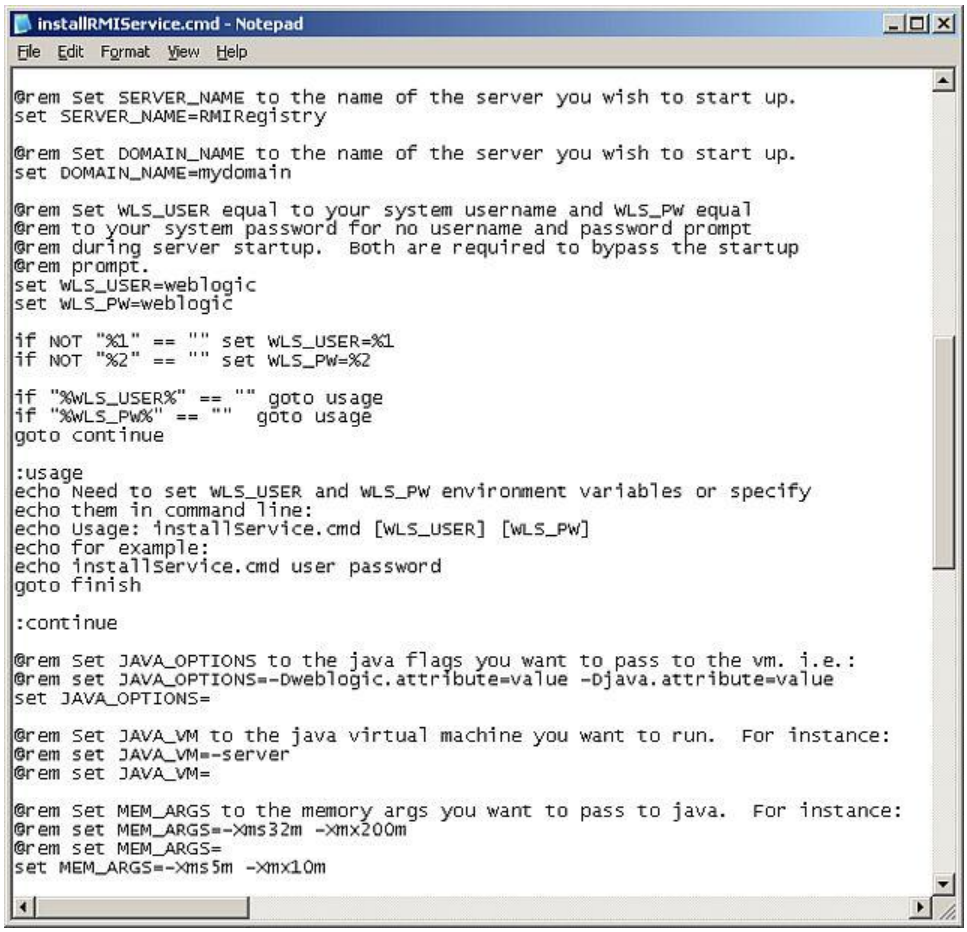
Open the "**Windows Explorer**"
Navigate to "**{drive letter}:\bea\user_projects\domains\{domain name}**"
Copy the "**installService.cmd**" file
Paste it back as "**Copy of installService.cmd**"
Rename the new copy as "**installRMIService.cmd**"



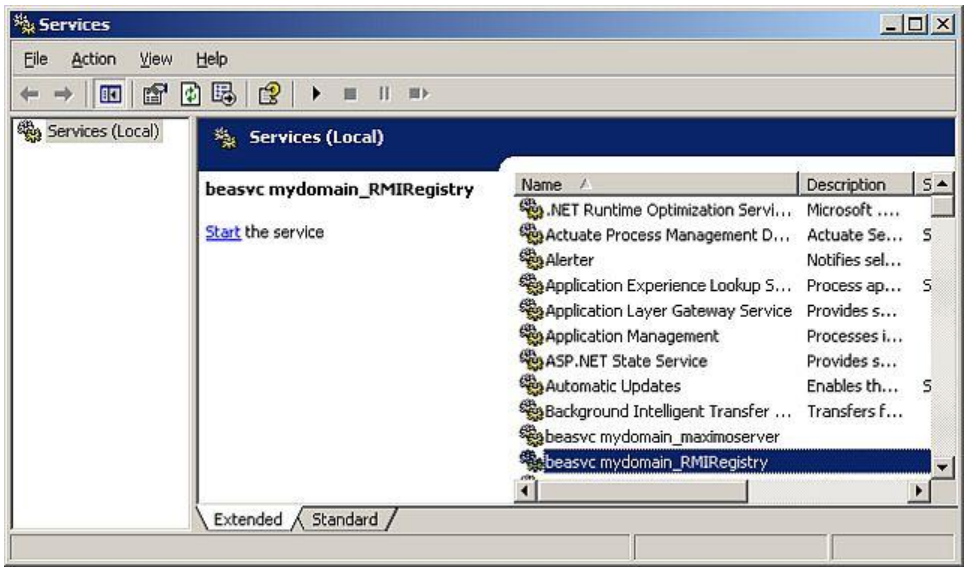
Edit the “**installRMIService.cmd**” file
Change the “**SERVER_NAME**” parameter to “**RMIRegistry**”
Check to see if there is a “**MEM_ARGS**” parameter. If there is, modify it, if there is not, insert it to show:

set MEM_ARGS=-Xms5m –Xmx10m

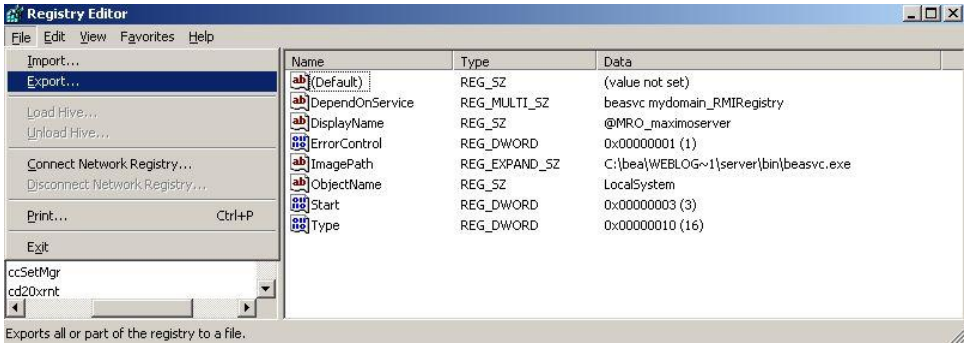
Save and close the file



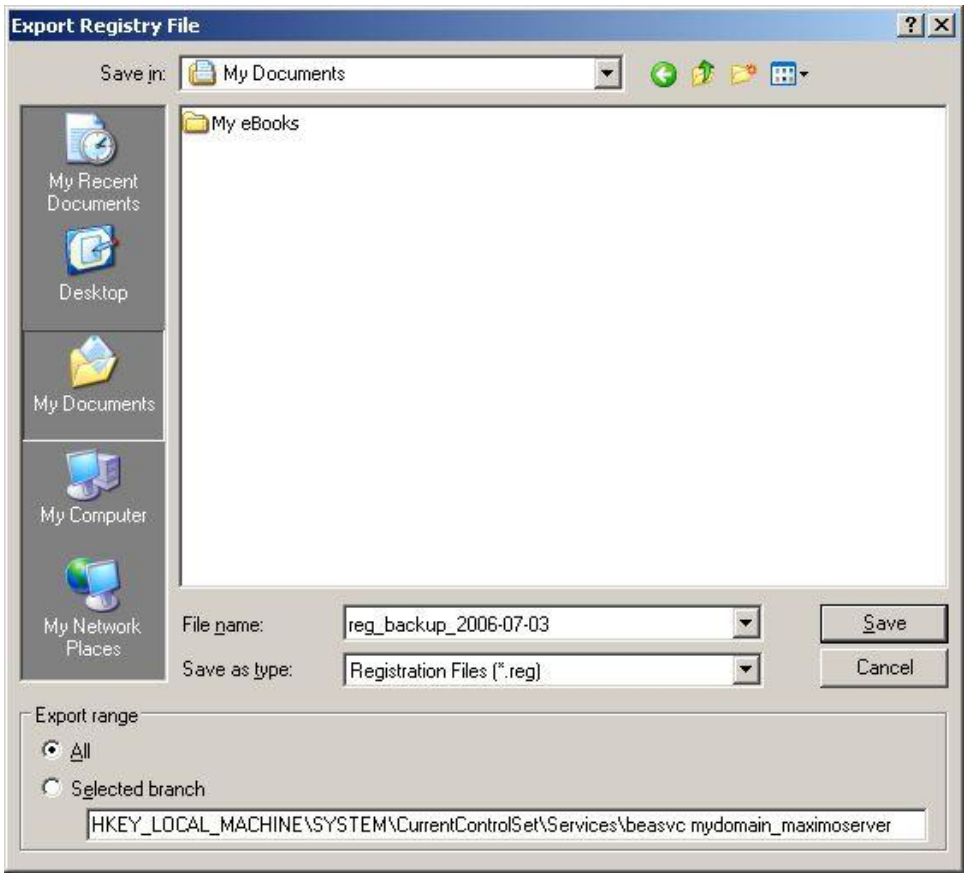
Double-click the “installRMIService.cmd” file to install the service.
Confirm that the service installed by opening the “Services” control panel and finding the bea service.



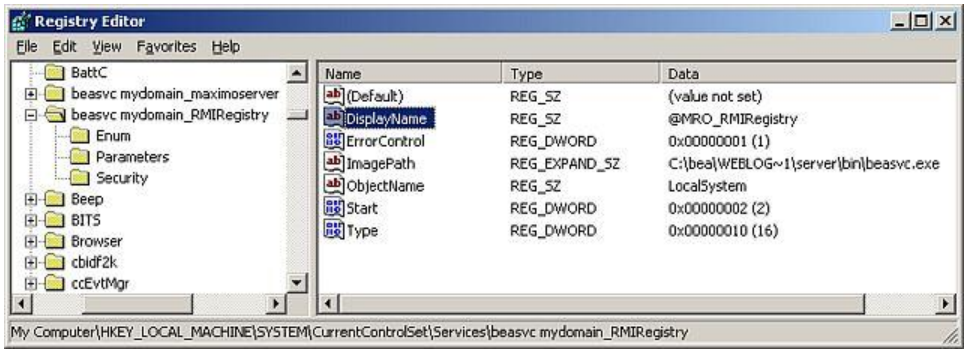
Open the "**Registry Editor**" by clicking "**Start/Run**" and typing "**regedit**" {enter}
Choose "**Export**" from the drop down "File" menu



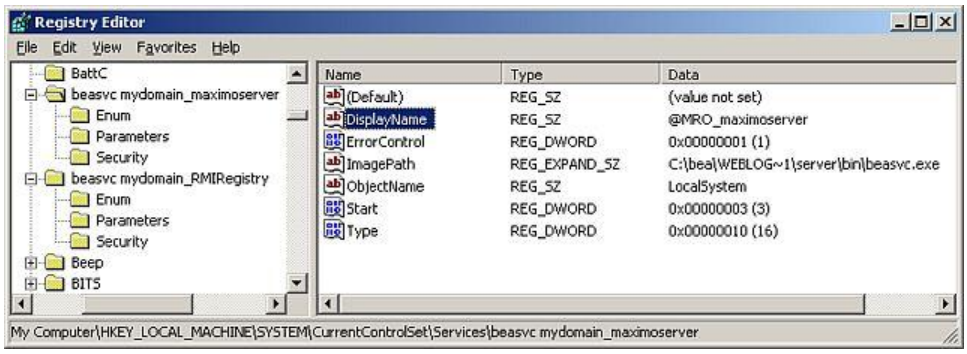
Select the "**All**" option
Name the export file
Click "**Save**"



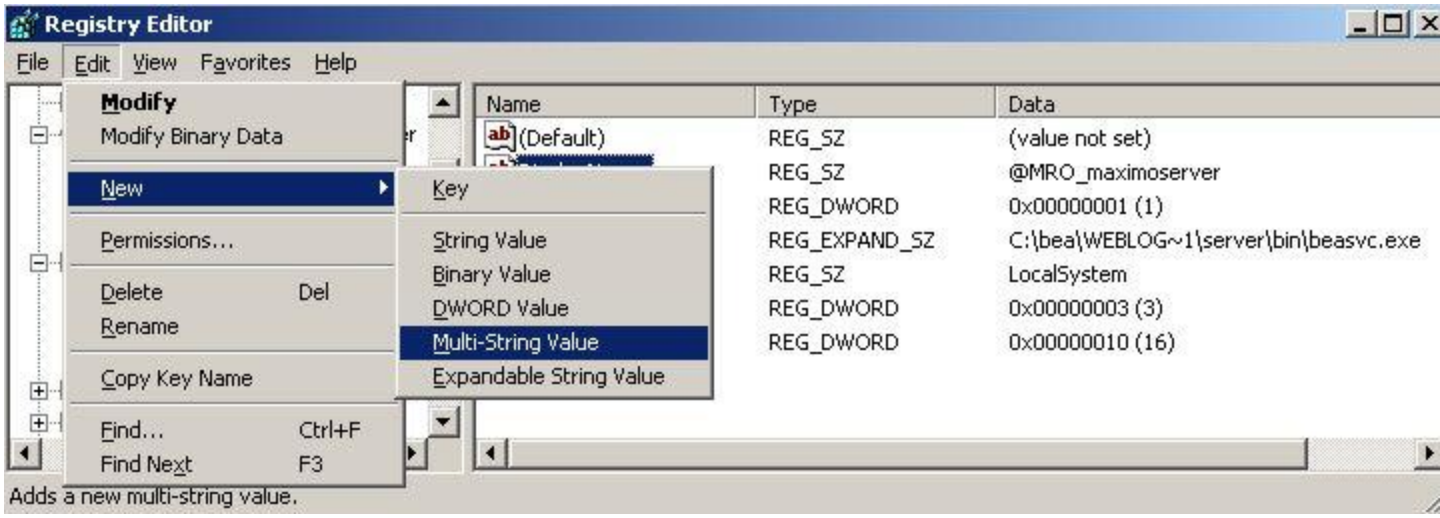
Navigate to "**HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\beasvc {domain_name}_RMIRegistry**"
Modify the "**DisplayName**" to "**@MRO_RMIRegistry**"
This will cause the service to sort to the top of Windows services in the Services control panel



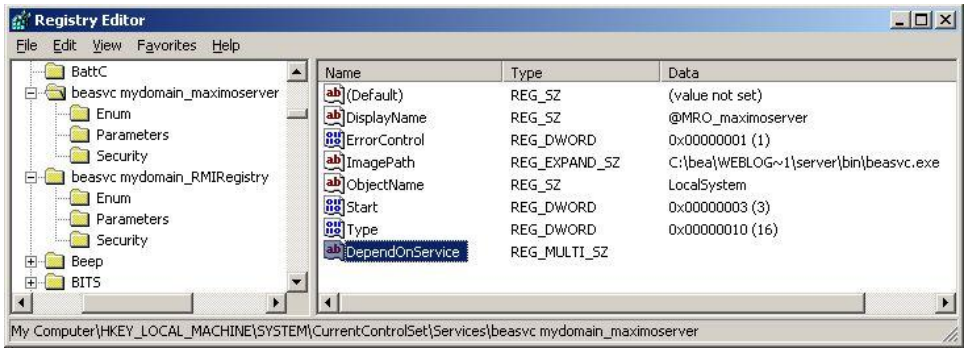
If there are any Maximo server services installed do the following or complete these steps after installing a Maximo service.
Navigate to "**HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\beasvc {domain_name}_{servername}**"
Modify the "**DisplayName**" to "**@MRO_{servername}**"
This will cause the service to sort to the top of Windows services in the Services control panel



While the Maximo service is selected, choose "**New/Multi-String Value**" from the drop down "**Edit**" menu



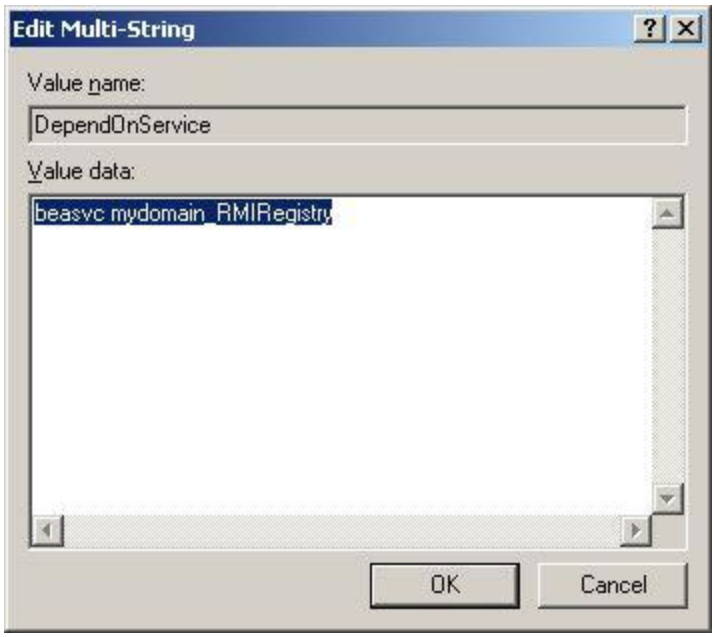
Rename the new value as "**DependOnService**"



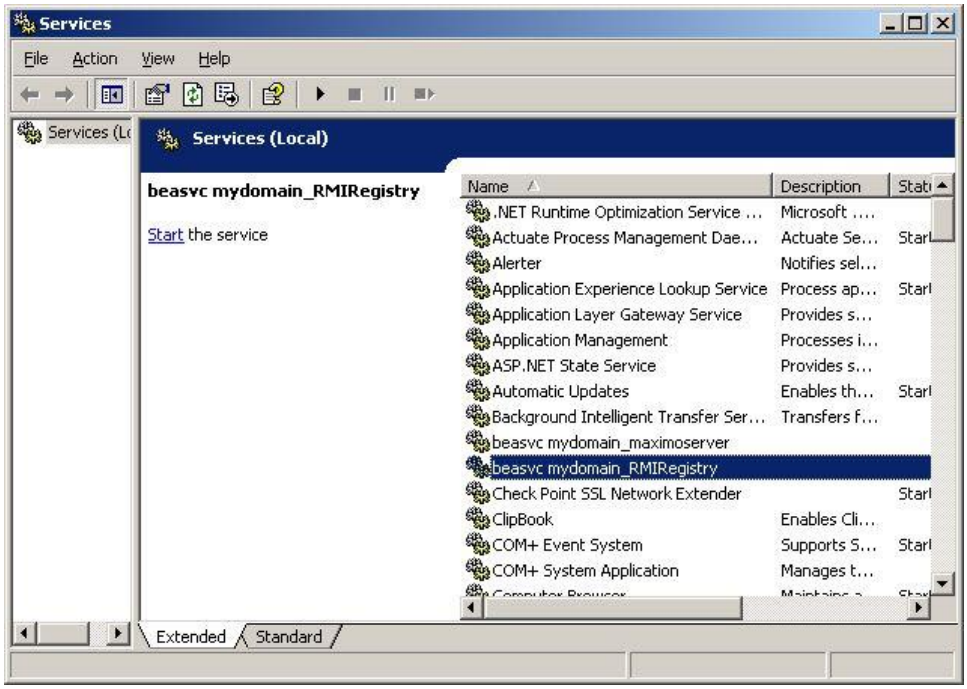
Double click the "**DependOnService**" name
Enter the exact name of the RMI Registry server as shown in the left pane (not the display name modified earlier) in the format:
beasvc {space} {domain_name}_RMIRegistry

beasvc mydomain_RMIRegistry

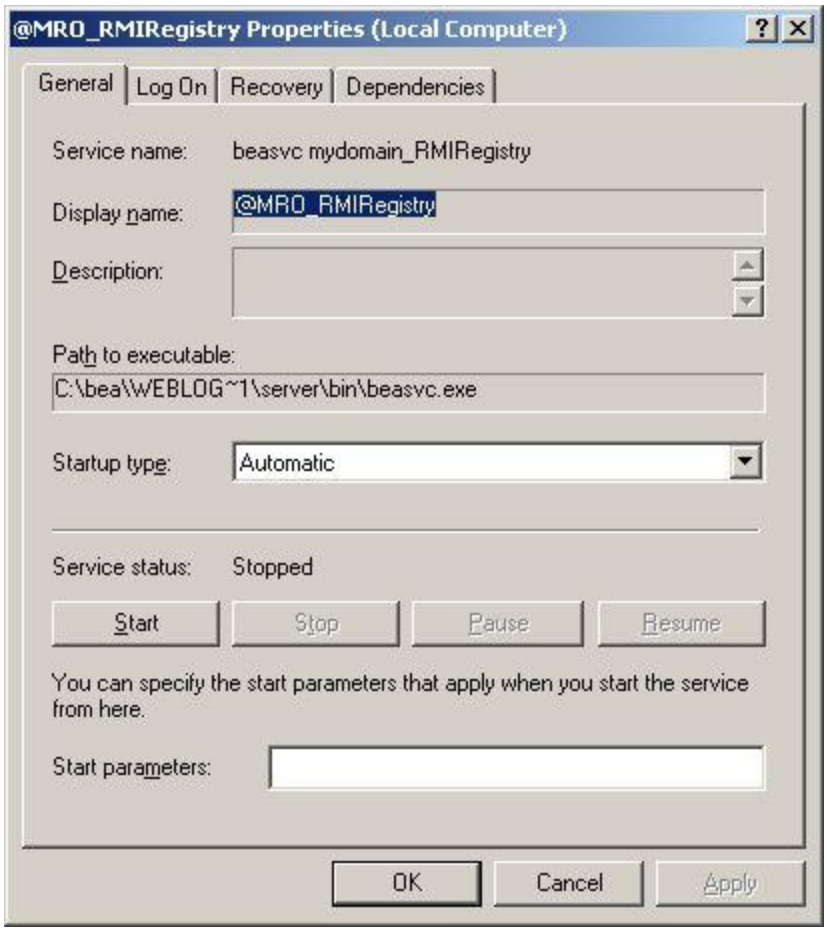
Click "**OK**"
Close the registry editor



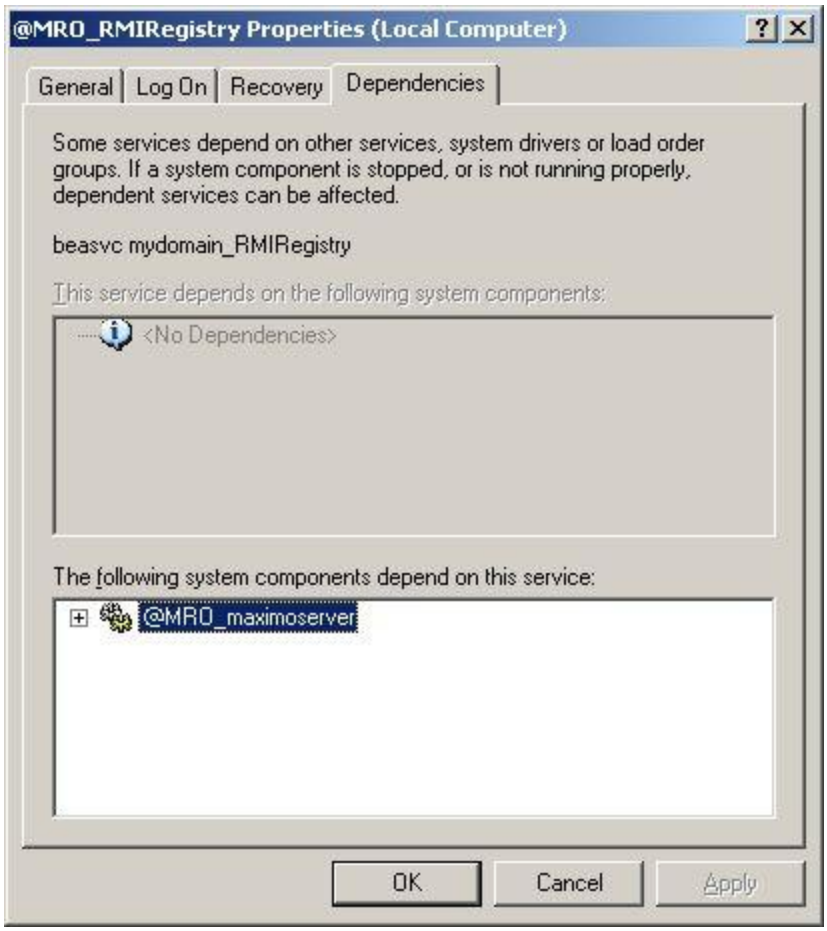
Open the Services control panel
Find the beasvc {domain_name}_RMIRegistry service (NOTE: this will change to "**@MRO_RMIRegistry**" after rebooting)



Double-click the service to open the properties of the service
Confirm that the service "**Startup type**" is set to "**Automatic**"



Click the “**Dependencies**” tab
Confirm that any Maximo server services are set to depend on the RMI service starting first.
Close the Services control panel
Reboot the server to complete the registry changes



Confirm all services started normally.