




IBM Tivoli System Automation E2E Application Maintenance



Transcript




IBM Software Group

**IBM Tivoli System Automation
for Multiplatforms and
End-to-End Automation**

Application Maintenance
May 2006

"Life can be hard, but e2e is easy!"



ON DEMAND BUSINESS™

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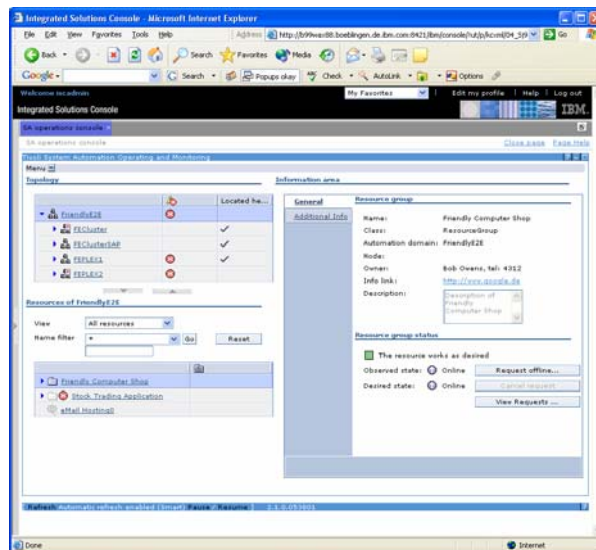
Hello, my name is Joel Hermann, and I work in the IBM Development Center in Boeblingen, Germany. What you're now viewing is a third demo session related to Tivoli System Automation for Multiplatforms and end-to-end automation. Two members of our development team, Isabell Schwertle and Wolfgang Schaeberle, want to show you how this leading-edge solution for high availability supports maintenance of applications whose components are distributed across multiple clusters.

If you first want an overview to Tivoli System Automation for Multiplatforms and its support for end-to-end automation in a heterogeneous IT landscape, please refer to session #1 that we did in March. A pointer to it and to another demo related to error detection and problem analysis is at the end of this session.

Our starting point today is the Operations Console that is part of Tivoli Systems Automation for Multiplatforms....

Operations Console – overview

- ③ One console to access **all** IBM Tivoli System Automation domains
- ↗ Same look and feel while controlling resources on different platforms
- ③ Comes with Tivoli System Automation for Multiplatforms V2 Base and End-to-End Automation
- ③ Web-based operations console
 - Based on WebSphere Portal Server (Integrated Solutions Console)
 - No need to install anything on the client
 - Can be accessed simply by using a Web browser
- ③ Designed to be easy to use and meet the needs of an SA operator



The Tivoli System Automation Operations Console is the “hub” for automated operations and for monitoring automated applications in a heterogeneous environment. Normally installed on a separate server, the console is Web-based and designed to provide easy and efficient support of an end-to-end landscape. It’s a great tool for controlling resources on different platforms and for recovering from problems that could happen.

Wolfgang, Isabell, in previous sessions you’ve showed us how to use the Operations Console and some of its functions. What do you want to demonstrate today?

Wolfgang: Let's have a look at another scenario, where we will shutdown an application, which is distributed across multiple clusters, for maintenance purposes. Isabell, in our sample environment we have a business application called "Friendly Computer Shop". It is an online shopping application based on SAP and DB2. We now have a maintenance window where we want to apply service to DB2. During this service period, the SAP solution should be shut down. Can you explain how to do this using the System Automation operations console?

Isabell: Yes, Wolfgang. Currently the end-to-end automation domain "FriendlyE2E" is selected in the topology tree and the resource table shows all top-level e-business applications. Now, let's look at the "Friendly Computer Shop" application group:

The screenshot displays the System Automation console interface, divided into two main sections: 'Topology' and 'Information area'.

Topology Section:

- Topology Tree:** Shows a hierarchy starting with 'FriendlyE2E'. Underneath it are four sub-items: 'FECluster', 'FEClusterSAP', 'FEPLEX1', and 'FEPLEX2'. A 'Located here' column is present to the right of these items.
- Resources of FriendlyE2E:** A table below the tree shows the state of resources.

Resource name	Compound state
mySAP Solutions	OK
DB2	OK

Information area Section:

- General / Resource group:** Displays details for the 'Friendly Computer Shop' resource group.
 - Name:** Friendly Computer Shop
 - Class:** ResourceGroup
 - Automation domain:** FriendlyE2E
 - Node:** (empty)
 - Owner:** Bob Owens, tel: 4312
 - Info link:** <http://www.google.de>
 - Description:** Description of Friendly Computer Shop
- Resource group status:** Shows the current state of the resource group.
 - Observed state:** Online
 - Desired state:** Online
 - Buttons:** 'Request offline...', 'Cancel request', and 'View Requests ...'

As you can see, the "Friendly Computer Shop" consists of two components, "mySAP Solutions", which itself is a group consisting of sub-components, and a DB2 database. Since I want to shutdown the SAP application, I select the application group "mySAP Solutions":

Topology

Resource	Located here
FriendlyE2E	
FECluster	✓
FEClusterSAP	✓
FEPLEX1	✓
FEPLEX2	✓

Resources of FriendlyE2E

View: All resources Search...

Top > Friendly Computer Shop > mySAP Solutions

Resource name	Compound state
DNS Server	OK
Http Server	OK
SAP App Server	OK
SAP ENQ Server	OK

Information area

General

Resource group

Name: mySAP Solutions
Class: ResourceGroup
Automation domain: FriendlyE2E
Node:
Owner: Bob Owens, tel: 4312
Info link: <http://www.google.de>
Description: Description of mySAP Solutions

Resource group status

The resource works as desired

Observed state: Online Request offline...

Desired state: Online Cancel request View Requests ...

Used by

mySAP Solutions is a member of the following resource groups

Resource	Class	Automation do...
Friendly Computer Shop	ResourceGroup	FriendlyE2E

W: The resource table now shows the components belonging to “mySAP Solutions”. In the “Located here” column you can see that “mySAP Solutions” is a heterogeneous application which is distributed across three clusters. The information area shows its details. In the status section you can see that “mySAP Solutions” is currently online. There you can also find the “Request offline” button, which can be used to stop “mySAP Solutions”.

I: Right, so now I click on “Request offline”, which causes a new panel to appear. In this panel I can enter a comment, telling other users why “mySAP Solutions” is shut down:

Request offline

Request mySAP Solutions to be offline



Specify a comment for this request

Shutdown during service period of DB2

Submit Cancel

After I have entered the comment, I press Submit to tell the automation manager to initiate a shutdown of “mySAP Solutions” and all its sub-components.

W: Look, Isabell, a message has appeared that confirms that your request has been submitted successfully. Now the automation manager will shut down all distributed components belonging to “mySAP Solutions” in the correct order. You did not need to know the relationships between the application components, where they are located, and how exactly the individual components are stopped – the automation handles all this.

I: Ah, look, now all components of “mySAP Solutions” have been successfully stopped by the automation. The icons in the resource table show that all components are offline. The information area for “mySAP Solutions” displays an icon showing that an offline request has been submitted by an operator ( ):

Topology **Information area**

		Located here
▼ FriendlyE2E	⚠	
▶ FECluster		✓
▶ FEClusterSAP		✓
▶ FEPLEX1		✓
▶ FEPLEX2		

Resources of FriendlyE2E

View: All resources Search...

Top > Friendly Computer Shop > **mySAP Solutions**

Resource name	Compound state
DNS Server	OK
Http Server	OK
SAP App Server	OK
SAP ENQ Server	OK

General **Resource group**

Relationships

Additional Info

Name: mySAP Solutions

Class: ResourceGroup

Automation domain: FriendlyE2E

Node:

Owner: Bob Owens, tel: 4312

Info link: <http://www.google.de>

Description: Description of mySAP Solutions

Resource group status

The resource works as desired

Observed state: Offline Request online...

Desired state: Offline Cancel request

Expected state after cancel: Online View Requests ...

Used by

mySAP Solutions is a member of the following resource groups

Resource	Class	Automation domain
Friendly Computer Shop	ResourceGroup	FriendlyE2E

With my request I have overwritten the automation goal that has been defined in the automation policy. So, now I can give our DB2 people a call and tell them that they can start to apply the DB2 service.

W: By the way, other operators looking at “mySAP Solutions” can easily find out about this situation by moving the mouse cursor over the operator request icon. This will bring up a flyover help that displays the user id that has submitted this request – which is your user id Isabell. And, if this icon is clicked upon, even more details about the submitted request will be displayed:

Request details

Request against mySAP Solutions

Requested action: Offline

User ID: iscadmin

Created: 2/28/06 10:47 AM

Comment: Shutdown during service period of DB2

Here you can see the type of request, the user that submitted it, the date when it was submitted and in particular it shows the comment that you have entered, when you submitted the request.

I: Right, and there is another useful thing that comes to my mind in this context. You can use the Search function to search for all resources with operator requests.

If I click on Search in the resources section, a new dialog comes up where I can specify search arguments:

Search

Domain name: FriendlyE2E

Search for resource name

*

Only resources with operator requests



OK Cancel

I can of course use this panel to search for a specific resource using a name filter. But now I want to include all resources with operator requests independent of their name. Therefore, I leave the asterisk in the name filter field, but place a check mark next to "Only resources with operator requests". Pressing OK will now bring up a list of all resources, against which operators have issued requests:

Resources of FriendlyE2E

View: All resources

Search results for **resources with operator requests**

Resource name ^	Compound st... ^	Member of ^
 mySAP Solutions	OK	Friendly Computer Shop
 Backend AppServer	OK	Stock Trading Application

W: Yeah, that's nice. This way you can quickly find the resources with operator requests. Here you can see that in addition to the request on "mySAP Solutions" there is also a request on another resource. As long as the offline request stays on "mySAP Solutions", the automation will keep the SAP application including its sub-components offline.

I: Oh, I just got notified that the DB2 service has been successfully applied and that I can now start SAP again. Therefore I select "mySAP Solutions" and press the "Clear results" button to go back to the normal view, so that I see all components belonging to "mySAP Solutions" again.

All I have to do now is to cancel the offline request for "mySAP Solutions" using the "Cancel request" button. This will cause the automation manager to start up all components belonging to "mySAP Solutions" again, because this is the desired state that has been defined in the automation policy.

W: Look Isabell, the components belonging to SAP have changed their icons in the resource table as they have been started by the automation manager and the operator request icon has disappeared for the "mySAP Solutions" group. Again, you did not need to know about a start-up sequence, specific start procedures, the location of the sub-components, or any other relationship between them. The e-business is up and running again.

Topology

	Located here
<ul style="list-style-type: none"> ▼ FriendlyE2E <ul style="list-style-type: none"> ▶ FECluster ✓ ▶ FEClusterSAP ✓ ▶ FEPLEX1 ✓ ▶ FEPLEX2 ✓ 	

Resources of FriendlyE2E

View: All resources Search...

Top > Friendly Computer Shop > mySAP Solutions

Resource name	Compound state
DNS Server	OK
Http Server	OK
SAP App Server	OK
SAP ENQ Server	OK

Information area

General

Relationships

Additional Info

Resource group

Name: mySAP Solutions

Class: ResourceGroup

Automation domain: FriendlyE2E

Node:

Owner: Bob Owens, tel: 4312

Info link: <http://www.google.de>

Description:

Resource group status

The resource works as desired

Observed state: Online Request offline...

Desired state: Online Cancel request

View Requests ...

Used by

mySAP Solutions is a member of the following resource groups

Resource	Class	Automation do...
Friendly Computer Shop	ResourceGroup	FriendlyE2E

Operations Console – application maintenance

- ③ Common, Web-based console
- ③ Can be used for maintaining applications spread across multiple clusters
- ③ Clearly visualizes an application's structure and components
- ③ Detailed information available for each component
- ③ Searches for all resources with operator requests possible
- ③ Operators can easily shut down applications for maintenance and restart them without knowing relationships among various components

Tivoli SA for Multiplatforms – IBM's end-to-end high availability solution

“Life can be hard, but e2e is easy!”

Thanks very much, Isabell and Wolfgang.

So to summarize: Besides being used to monitor and control the availability of automated resources in a heterogeneous IT landscape, the Operations Console is also great for maintaining applications whose components are spread across various platforms or clusters.

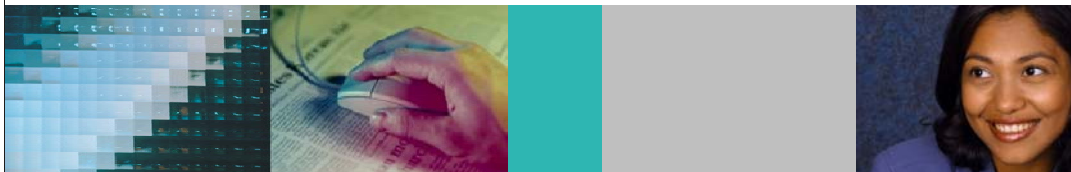
A major benefit is that operators can easily shut down such applications in a controlled manner and then inform the skilled personnel responsible for applying maintenance. Once maintenance is done, operators simply cancel the previous shutdown request to restart an application. And all of this is done without needing to know specific shutdown or startup sequences, specific procedures, the location of application components, or their relationships.

That's just what you need to keep your enterprise-wide, cross-platform applications online and up-to-date. **And best of all, less downtime can mean lower total costs.**



Want more information?

- ③ Tivoli System Automation for Multiplatforms home page:
ibm.com/software/tivoli/products/sys-auto-linux
- ③ All sessions in this series:
[ftp.software.ibm.com/software/tivoli/products/sys-auto-linux/demos](ftp://ftp.software.ibm.com/software/tivoli/products/sys-auto-linux/demos)
(separate readme and zipped files for each session)
- ③ Data sheet:
[ftp.software.ibm.com/software/tivoli/datasheets/ds-sys-auto-multiplatforms.pdf](ftp://ftp.software.ibm.com/software/tivoli/datasheets/ds-sys-auto-multiplatforms.pdf)
- ③ Sample policies:
ibm.com/software/tivoli/products/sys-auto-linux/downloads.html
- ③ Reference library:
publib.boulder.ibm.com/tividd/td/IBMTivoliSystemAutomationforMultiplatforms2.1.html



For more information related to IBM Tivoli System Automation for Multiplatforms, please refer to the resources listed here. The second link is a pointer to all of the sessions in this series, including an introduction done in March 2006.

Thanks for your interest!

धन्यवाद
Hindi

多謝
Traditionelles Chinesisch

ขอบคุณ
Thailändisch

Спасибо
Russisch

Gracias
Spanisch

شكراً
Arabisch

Danke!

Obrigado
Brasilianisch
Portugiesisch

Grazie
Italienisch

多谢
Vereinfachtes Chinesisch

Thank You
Englisch

Merci
Französisch

நன்றி
Tamilisch

ありがとうございました
Japanisch

감사합니다
Koreanisch

