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# IBM TXSeries for Multiplatforms V7.1

## *TXSeries administration console enhancements*



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This presentation provides an overview of the enhancements made to the TXSeries administration console in IBM TXSeries for Multiplatforms V7.1.

## Agenda

- TXSeries Administration Console enhancements:
  - ▶ General enhancements
  - ▶ Monitoring enhancements
  - ▶ WLM enhancements
- LWI log generation in HTML format



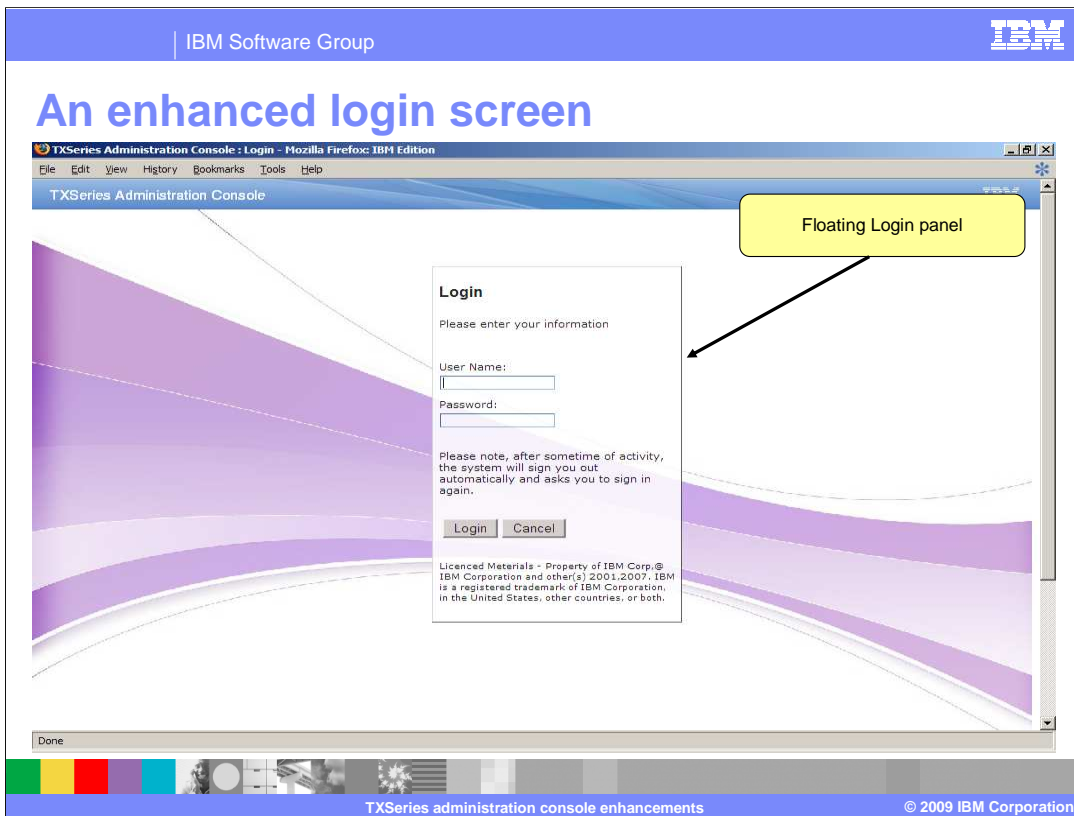
The agenda of this presentation is to provide an overview of the enhancements made to the TXSeries administration console in TXSeries V7.1. The major enhancements are categorized into three broad types: General enhancements, monitoring enhancements, and WLM enhancements. An overview of each of these is presented. Next, the presentation explains the LWI log generation mechanism of TXSeries V7.1, which has been updated from XML format to HTML format.

## Section: General enhancements

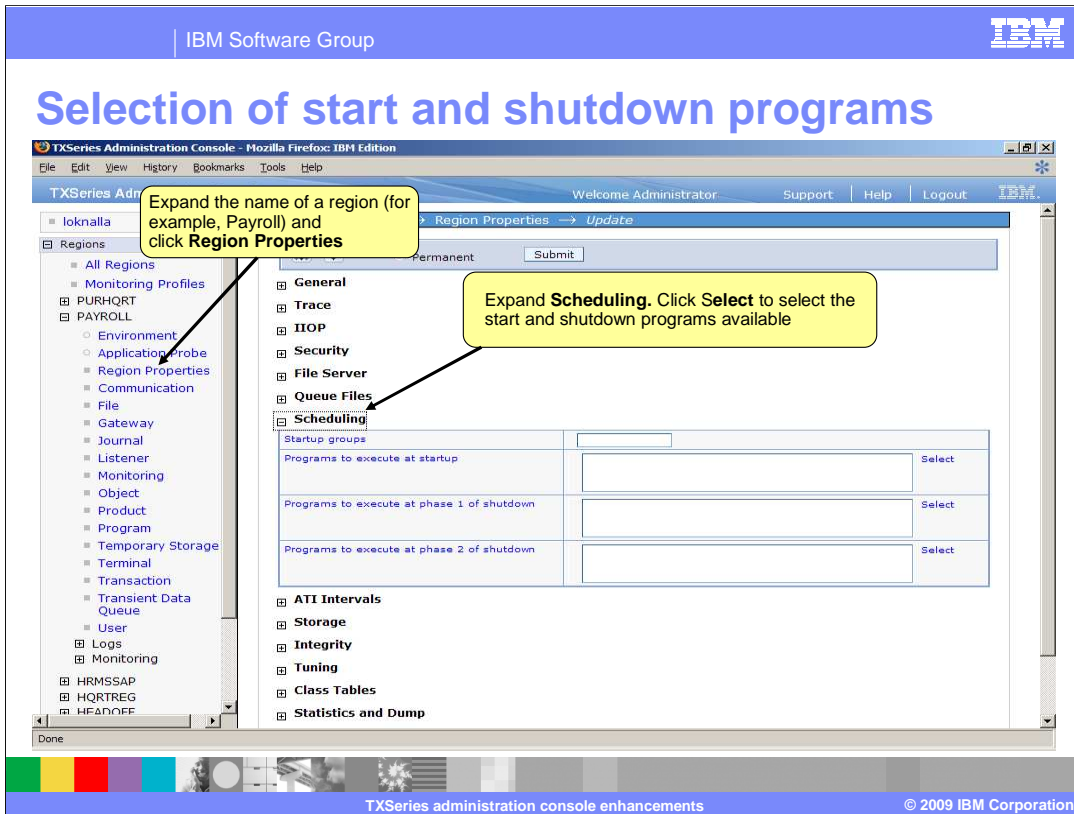
- An enhanced login screen
- Selection of start and shutdown programs of a region made easy
- Configuration of application probe facility from the administration console



This section provides an overview of the general enhancements made to the administration console. These include enhancements to the login screen, improvements in the selection of start and shutdown programs of a region, and the provision for configuring the CICS® application probe facility from the administration console.



The login screen of the administration console has been enhanced to give you a better experience with the product. This screen has a floating login panel with fields for entering the user name and password.



As compared to the administration console of TXSeries V6.2, the selection of start or shutdown programs of a region has been simplified in the administration console of TXSeries V7.1. To select a start or shutdown program, start the administration console. From the navigation pane on the left, expand the name of the region and click region properties. This opens the region properties window in the right pane. From the region properties window, expand scheduling. Click select to select the programs from the list of defined programs for start or shutdown.

## Selection of start and shutdown programs (continued)

When you click **Select**, a dialog box opens. This lists all the defined programs You can select up to 10 programs.

Select	Name	Resource description	Program path name
<input checked="" type="checkbox"/>	PAYPR1	Program Definition	PAYPR01
<input checked="" type="checkbox"/>	PAYPR10	Program Definition	PAYPR10
<input checked="" type="checkbox"/>	PAYPR11	Program Definition	PAYPR11
<input checked="" type="checkbox"/>	PAYPR2	Program Definition	PAYPR02
<input checked="" type="checkbox"/>	PAYPR3	Program Definition	PAYPR03
<input checked="" type="checkbox"/>	PAYPR4	Program Definition	PAYPR04
<input checked="" type="checkbox"/>	PAYPR5	Program Definition	PAYPR05
<input checked="" type="checkbox"/>	PAYPR6	Program Definition	PAYPR06
<input checked="" type="checkbox"/>	PAYPR7	Program Definition	PAYPR07
<input checked="" type="checkbox"/>	PAYPR8	Program Definition	PAYPR08
<input type="checkbox"/>	PAYPR9	Program Definition	PAYPR09
Total		11	

Buttons: Select, Cancel

Done

Class Tables

Statistics and Dump

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When you click select, a dialog box opens. This displays a list of the already defined programs for the region. A maximum number of 10 start or shutdown programs can be selected. Select the programs you want to start (or shutdown) and click select.

## Selection of start and shutdown programs

The screenshot shows the TXSeries Administration Console interface. On the left is a navigation tree with 'Regions' expanded to 'PAYROLL'. The main area displays configuration options for the 'PAYROLL' region. Under the 'Scheduling' section, there are three fields for program execution:

- Startup groups:** A text input field containing a comma-delimited list: `PAYPR1,PAYPR10,PAYPR2,PAYPR3,PAYPR4,PAYPR5,PAYPR`. A 'Select' button is visible to the right.
- Programs to execute at phase 1 of shutdown:** An empty text input field with a 'Select' button to its right.
- Programs to execute at phase 2 of shutdown:** An empty text input field with a 'Select' button to its right.

A yellow callout box with a black border and arrow points to the 'Startup groups' field, containing the text: "The start or shutdown programs are displayed in a comma-delimited list in the corresponding field. You can also add, update, or delete the programs in a field manually."

At the bottom of the console, there is a footer with the text: "TXSeries administration console enhancements © 2009 IBM Corporation".

All the programs are now displayed in a comma-delimited list, in the Programs to run at start field. You can also add programs manually, but make sure that these programs are already defined and are comma-delimited when you type them in the relevant field.

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## Configuration of CICS application probe facility

TXSeries Administration Console - Mozilla Firefox: IBM Edition

File Edit View History Bookmarks Tools Help

TXSeries Administration Console Welcome Administrator Support Help Logout

Region : PAYROLL → Application Probe → Update

Submit

**General**

Should default values be used for all the attributes?  Yes  No

Output log directory

Type of output log File

Size of the ring buffer in bytes 1048576

**File Descriptor**

**API Information**

**Probing**

**Dump Instances**

**Misc**

To configure the CICS application probe facility, expand the name of the region and click **Application Probe**.

Done

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For CICS application program tracing, TXSeries V7.1 introduces a new feature called the CICS application probe facility. You can configure this facility from the administration console. To configure the CICS application probe facility, start the administration console. In the navigation pane on the left, expand the name of the region and click application probe.



## Section: Monitoring enhancements

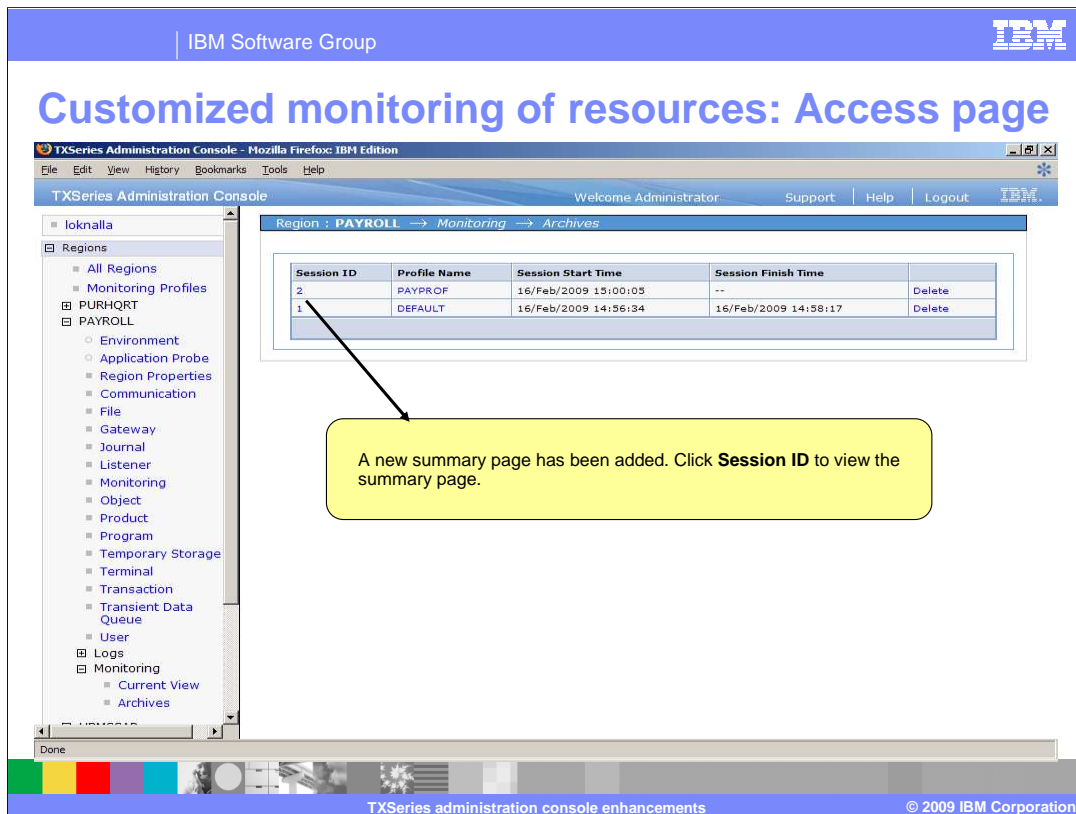
- Customized monitoring of these resources:
  - ▶ Transactions
  - ▶ Programs
  - ▶ System resources
- Provision for monitoring multiple regions simultaneously



This section provides an overview of the monitoring enhancements introduced in the administration console. These are customized monitoring of transactions, programs and system resources, and provision for monitoring multiple regions simultaneously.

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## Customized monitoring of resources: Access page



TXSeries Administration Console - Mozilla Firefox: IBM Edition

File Edit View History Bookmarks Tools Help

TXSeries Administration Console Welcome Administrator Support Help Logout

Region : **PAYROLL** → Monitoring → Archives

Session ID	Profile Name	Session Start Time	Session Finish Time	
2	PAYPROF	16/Feb/2009 13:00:05	--	Delete
1	DEFAULT	16/Feb/2009 14:56:34	16/Feb/2009 14:58:17	Delete

A new summary page has been added. Click **Session ID** to view the summary page.

Done

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In the administration console of TXSeries V7.1, a summary page has been added, from where you can select the resources and the associated attributes for which monitoring data is to be displayed. To view the summary page, start the administration console. In the left pane, expand the name of the region and select monitoring-> archives. The archives window opens in the right pane. Click session ID to view the summary page.

## Customized monitoring of resources: Transactions

The screenshot displays the TXSeries Administration Console interface. The left-hand navigation pane shows a tree structure under 'Regions' with sub-items like 'All Regions', 'Monitoring Profiles', 'PURHQRT', 'PAYROLL', 'Environment', 'Application Probe', 'Region Properties', 'Communication', 'File', 'Gateway', 'Journal', 'Listener', 'Monitoring', 'Object', 'Product', 'Program', 'Temporary Storage', 'Terminal', 'Transaction', 'Transient Data Queue', 'User', 'Logs', and 'Monitoring'. The main content area is titled 'Transaction' and includes a 'View All' button, a 'Names' field, and an 'Attributes' section. Below this is a 'Select Resources' section with a list of resources (EC01, CMBT) and a 'Selected Resources' section. The 'View' section contains several checkboxes for monitoring options: 'Program being run', 'Deadlock timeout interval', 'Dumping On or OFF?', 'Initiation Facility', 'Priority', 'TWA Size', and 'UOW state'. A 'Statistics' section is also visible at the bottom of the main content area.

You now have the option to select Transactions and the associated attributes to view.

The new feature allows you to view Transaction readings for all attributes.

You can also view the statistics for all Transactions from the Statistics section.

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In TXSeries V6.2 administration console, if the monitoring data to display is huge, the Web page takes a long time to load this data because all the attributes of all the resources are read and displayed on a single page.

TXSeries V7.1 administration console provides you with a new window that allows you to view transaction readings for all attributes. You now have the option to select transactions and the associated attributes. In addition you can also view the statistics of all the transactions from the statistics section.

## Customized monitoring of resources: Programs

TXSeries Administration Console - Mozilla Firefox: IBM Edition

TXSeries Administration Console

Regions

- All Regions
- Monitoring Profiles
- PURHQRT
- PAYROLL
  - Environment
  - Application Probe
  - Region Properties
  - Communication
  - File
  - Gateway
  - Journal
  - Listener
  - Monitoring
  - Object
  - Product
  - Program
  - Temporary Storage
  - Terminal
  - Transaction
  - Transient Data Queue
  - User
- Logs
- Monitoring
  - Current View
  - Archives

Transaction

Program

View All

Name: ECO1,ECPR

Attributes

Select Resources: EC01

Selected Resources: ECPR

Type of COBOL

Module Language

Transaction Name

Module use count

View

Number of programs run

Statistics

System

Done

TXSeries administration console enhancements © 2009 IBM Corporation

You have the flexibility to choose Programs and attributes to view.

There is a facility to view all the Program readings for all the attributes.

You can view the Statistics for all programs.

Alternatively, you can select to view the monitoring data for selected programs and associated attributes.

# Customized monitoring of resources: System

The screenshot shows the TXSeries Administration Console interface. On the left is a navigation tree with categories like Regions, Monitoring Profiles, and Logs. The main area displays 'Profile Details' for a session named 'PAYROLL'. Below this, there are sections for 'Transaction', 'Program', and 'System'. The 'System' section is expanded to show a 'View All' dialog for 'Statistics'. This dialog lists several monitoring attributes with checkboxes and 'View' icons:

- Region Pool SIZE
- Task Shared Pool Size
- Task Shared Pool Short of storage
- Region Pool IN USE
- Task Shared Pool IN USE
- Number of storage Abends
- Number of tasks using Task private pool

A yellow callout box with the text "You have the flexibility to read System attributes" has an arrow pointing to the 'System' section of the interface.

You can also select to view only the monitoring statistics of the system.

## Customized monitoring of resources: System readings

The screenshot displays the TXSeries Administration Console interface. The left sidebar shows a navigation tree with 'Monitoring' expanded. The main content area is titled 'Region : PAYROLL -> Monitoring -> Session Readings'. It contains two sections: 'Monitoring Session Details' and 'System Statistics'.

**Monitoring Session Details**

Monitoring Session ID	2
Profile Name	PAYPROF
Profile Description	Payroll Profile
Sampling Interval(Minutes)	1
Session Start Time	16/Feb/2009 15:00:05
Session Finish Time	--
Current Status	A

**System Statistics**

	Region Pool SIZE	Task Shared Pool Size	Task Shared Pool Short of storage	Region Pool IN USE	Task Shared Pool IN USE	Number of storage Abends	Number of tasks using Task private pool
15:00:05	3145728	1048576	0	677216	520	0	9
15:01:05	3145728	1048576	0	677216	520	0	9
15:02:05	3145728	1048576	0	677216	520	0	9

A yellow callout box with an arrow pointing to the 'System Statistics' table contains the text: "You can view a list of attributes and the associated statistics relating to the System resource."

At the bottom of the console, there is a footer with the text: "TXSeries administration console enhancements © 2009 IBM Corporation".

You can view a list of attributes and the associated statistics relating to the system resource.

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## Multiple region monitoring

The screenshot displays the TXSeries Administration Console interface. The main content area is titled "Region : PURHQRT → Monitor Definition → Update". It features a "Permanent" radio button and a "Submit" button. The "General" section contains several configuration options:

- Resource description: Monitor Definition
- Can resource be modified?:  Yes  No
- Write separate records for conversational tasks?:  Yes  No
- Set monitoring on?:  Yes  No
- Set administration console monitoring on?:  Yes  No
- TCP port number for administration console monitoring: 8002
- TDQ to hold monitoring information: [Empty field]
- File or path of user monitoring program: [Empty field]

The "Monitor Fields" section is currently collapsed. A yellow callout box with a black arrow pointing to the "TCP port number" field contains the following text:

Monitoring can be enabled for multiple regions as long as the port number in **TCP port number for administration console monitoring** field is unique across regions.

At the bottom of the console, there is a status bar with the text "TXSeries administration console enhancements" and "© 2009 IBM Corporation". The page number "15" is visible in the bottom right corner.

In TXSeries V6.2, at any given point of time, you can monitor only a single region. The administration console of TXSeries V7.1 now allows you to monitor multiple regions simultaneously. Before using this facility, ensure that the port number in the TCP port number for administration console monitoring field is unique across the regions.

## Section: WLM enhancements

- Enhanced WLM plex view
- WLM attribute validations on the client side
- Context sensitive help for WLM attributes



This section provides an overview of the WLM related enhancements made in the administration console of TXSeries V7.1. These are an enhanced WLM Plex view, the ability to carry out client side WLM attribute validations and the provision of context sensitive help for WLM attributes.



The administration console WLM Plex view has been modified to present a WLM groups perspective. A plex has its plex attributes and a collection of groups. Each group in turn can have transactions, programs, and regions.

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## Enhanced WLM plex view: Expanded WLM group

TXSeries Administration Console - Mozilla Firefox: IBM Edition

Plex Database: HEADOFFICEDB → Plex: ACCOUN

Submit

**Attributes**

**Groups**

Add Group Remove Group

**HWGROUP**

**Transactions**

Add Transaction Remove Transaction

Select	Name	load
<input type="checkbox"/>	TRNA	0.25
Total 1		

**Programs**

Add Program Remove Program

Select	Name	dynamic	load
<input type="checkbox"/>	PRNA	yes	0.25
Total 1			

**Regions**

**SWGROUP**

Total 2

javascript:showHideNavigationLocGen('HWGROUP\_PROG','txseries')

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You can use the new WLM group's perspective to add, update or remove transactions, programs or regions and their connections.

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## Enhanced WLM plex view: Expanded connections

TXSeries Administration Console - Mozilla Firefox: IBM Edition

File Edit View History Bookmarks Tools Help

TXSeries Administration Console Welcome root Support Help Logout

Plex Database : HEADOFFICEDB → Plex : ACCOUNTS → update

Submit

**Attributes**

**Groups**

Add Group Remove Group

HWGROUP

**Transactions**

**Programs**

**Regions**

Add Region Remove Region

Select	Name	factor	health	maxServers	Connections
<input type="checkbox"/>	PAYROLL	1.0	1	25	<input type="checkbox"/>

Add Connection Remove Connection

Select	Name	inService	load
<input type="checkbox"/>	LCOR	0	0.1
Total 1			

Total 1

SWGROUP

Total 2

Done

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*Note: A yellow callout box with an arrow pointing to the 'Connections' column in the table above contains the text: "Connections can be added, removed, and updated for each region."*

Each region has a collection of connections. To view the list of connections of a region, expand connections. You can also add, delete or update connections definitions.

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## WLM attribute validations

The screenshot shows the TXSeries Administration Console interface. The breadcrumb navigation indicates: Plex Database : HEADOFFICEDB → Plex : ACCOUNTS → Group : HWGROUP → Transaction : TRNA → update. A form with a 'Submit' button contains the following data:

Plex Database	HEADOFFICEDB
Plex Name	ACCOUNTS
Transaction Name	TRNA
Group	HWGROUP
load	0

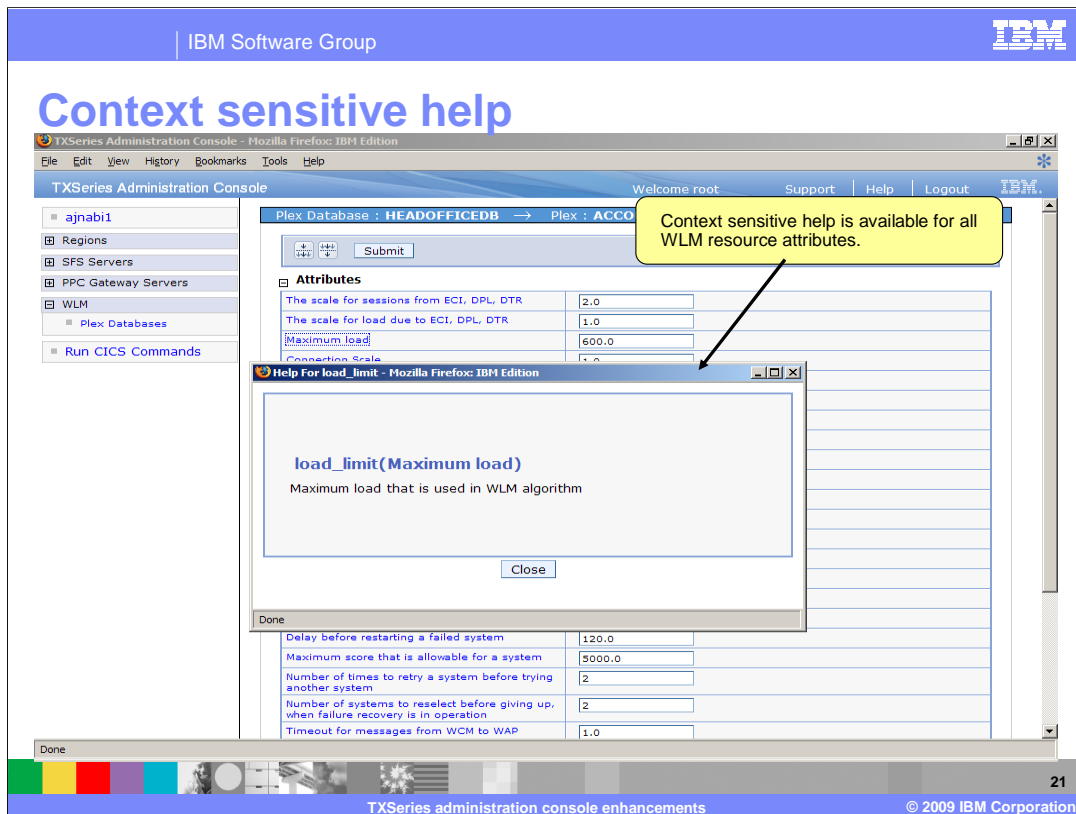
A pop-up error dialog box is displayed with the message: "Value must be a valid positive float of the format #.#".

In earlier versions of TXSeries, the WLM attribute validations were done on the server side. Now all the basic validations are done in the browser itself. This avoids network flows of invalid input data formats from the client and server. Along with attributes, all resource names are also validated for permitted number of characters.

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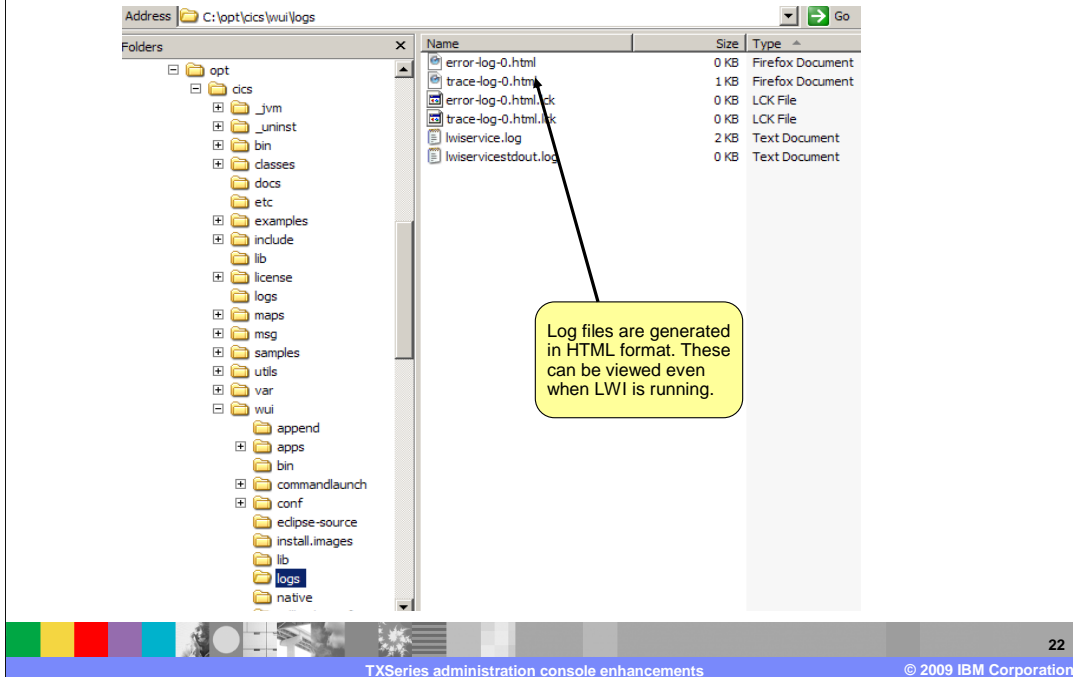
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In earlier versions of TXSeries, WLM attribute validations were done on the server side. In the administration console of TXSeries V7.1, to avoid the inflow of requests to the server, the basic validations have been shifted from the server side to the client side. In case the input values for the attributes are not in the required format, a pop-up window opens with an appropriate message. Along with attributes, all resource names are also validated for permitted number of characters.



The administration console of TXSeries V7.1 now provides context sensitive help for all the WLM attributes.

## LWI logs in HTML format



In the earlier versions of TXSeries, the LWI (light-weight infrastructure) logs were in XML format and you could not view these logs if LWI was running. To overcome this problem, in TXSeries V7.1, LWI is configured to generate logs in HTML format so that they can be viewed from the administration console even after LWI is running.

## Summary

- An enhanced login screen
- Selection start and shutdown programs easier
- Support for configuring the CICS Application Probe Facility
- Enhancements to WLM
- Enhancements to monitoring facilities
- LWI log generation changed from XML format to HTML format



In summary, TXSeries V7.1 introduces several enhancements and features to the administration console to give you a better experience with the product. The administration console has an enhanced login screen, selection of start or shutdown programs has been made easy, and there is support for configuring the CICS application probe facility. Significant enhancements have also been made to WLM and monitoring facilities. LWI log generation has been changed from XML format to HTML format.

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