

TSMExplorer V7



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TSMExplorer functions

TSMExplorer is a solution for the administration and monitoring of IBM Spectrum Protect (SP).

TSMExplorer possesses the following features:

- Easy to use user interface for managing SP servers
- Easy installation
- Low requirements to hardware resources
- Implementation of all functions available through standard dsmadm management console
- Implementation of graphical charts for displaying data
- Collects and displays statistical information on SP server work
- Save SP configuration, volume history, device configuration file
- Generates reports, alerts and sends them to users.
- Performs constant monitoring SP servers' key parameters

TSMExplorer Software requirements

TSMExplorer supports the following operations systems:

- Windows System;
- Unix Systems;
- Supported SP version: 6.x, 7.x, 8.x

Front-end is not required Java for work. Just run browser and go.

TSMExplorer Hardware requirements

TSMExplorer requires:

- 1024 Mb memory.

TSMExplorer Installation in Windows (portable version)

- download file **tsmexp_winx64.zip** from <https://www.tsmexplorer.com/> site;
- Install Spectrum Protect Client with administrative clients (dsmadm.exe);
- extract zip file to any directory;
- copy license key **key.lic** to application path;
- run **install_service.cmd** as administrator for installation windows service;
- check windows service "TSMExplorer Server";
- open browser and go to <https://host:5020/start>
- default login/password is admin/admin

To uninstall TSMExplorer just stop application and remove directory by

```
> uninstall_service.cmd
> delete path /TSMExplorer
```

TSMExplorer Installation in Linux and AIX (portable version)

- download file **tsmexp_aix.zip** or **tsmexp_linx64.zip**;
- Install Spectrum Protect client with administrative clients (dsmadm);
- extract zip file to any directory;
- copy license key **key.lic** to application path;
- set **chmod 0755** for file **tsmexp.rc**;
- change variable PATH_TSMEXPLORER to absolute path in **tsmexp.rc**;
- run **> tsmexp.rc start'** for start service;
- open browser and go to <https://host:5020/start>;
- default login/password is admin/admin

To uninstall TSMExplorer just stop application and remove directory by

```
> tsmexp.rc stop
> rm -rf /TSMExplorer
```

TSMExplorer Installation for Unix Systems

- download file **tsmexp_unix.zip** from <https://www.tsmexplorer.com/> site;
- install Java 11 or later version;
- Install Spectrum Protect client with administrative clients (dsmadm);
- extract zip file to any directory;
- copy license key **key.lic** to application path;
- set **chmod 0755** for file **tsmexp.rc**;
- change variable PATH_TSMEXPLORER to absolute path in **tsmexp.rc**;
- run **> tsmexp.rc start'** for start service;
- open browser and go to <https://host:5020/start>;
- default login/password is admin/admin

To uninstall TSMExplorer just stop application and remove directory by

```
> tsmexp.rc stop
> rm -rf /TSMExplorer
```

Additional command (UNIX):

- **> tsmexp.rc stop** - stop service
- **> tsmexp.rc status** - show status service
- **> tsmexp.rc restart** - restart service
- **> tsmexp.rc license** - show license

Additional command (Windows):

- **> TSMExplorer.exe stop** - for stop service
- **> TSMExplorer.exe status** - show status service
- **> TSMExplorer.exe restart** - restart service
- **> TSMExplorer.exe license** - show license

TSMExplorer Config

Standard app.cfg file for manager application

```
port = 5020           // communication port
lockport = 27550      // inside service port for application
ibmllib = false       // enable/disable function for manage IBM libraries TS3500 and TS4500
restapi = true        // enable/disable REST-API for Spectrum Protect Servers
restport = 16020      // REST-API communication port for Spectrum Protect Servers
```

TSMExplorer Upgrade

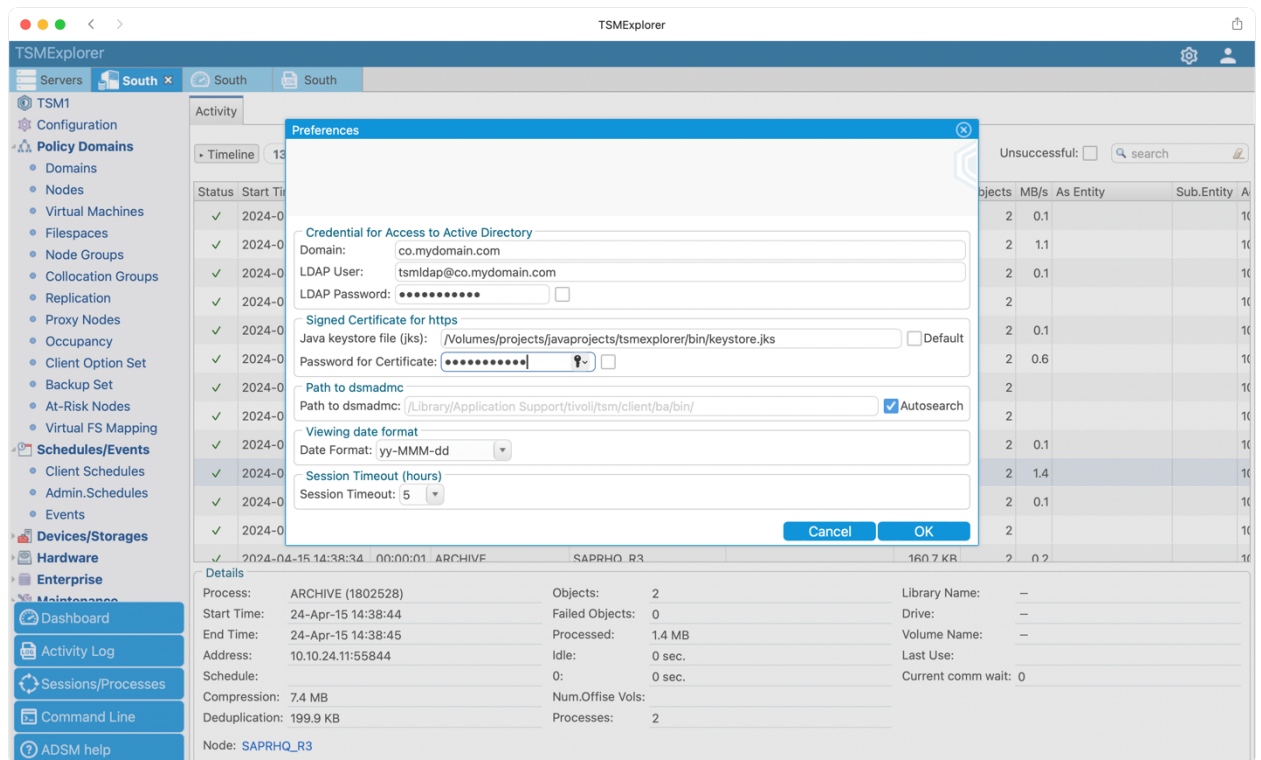
- stop application service
- update all files except app.cfg, tsmexp.rc

License Model

All license information for the “TSMExplorer” software is contained in a single file with the name “key.lic”. This file is valid equally for the client and the server component of the “TSMExplorer” software. For activating the licensed version, the key.lic file must be located in the root directory where the program is installed. You can look at product license and other parameters in menu “About”

You can send request to support@tsmexplorer.com to get temporary license keys.

Preferences and SP Server Registration.



- Domain – auto-set “@yourdomain” to login form
- Dsmadmc path – manual set path to dsmadmc
- Java key store file – manual personal jks file with your personal certificate for validate SSL connection

Create personal jks (certificate) file

To create keystore:

```
keytool -genkeypair -v -alias tsmsrv.yourdomain.com -keyalg RSA -keysize 2048 -validity 730 -keystore TSMExplorer.jks -storepass XXXX -storetype JKS
```

To generate certificate request:

```
>keytool -certreq -v -alias tsmsrv.yourdomain.com -file tsmsrv.yourdomain.com.csr -keypass XXXX -keystore TSMExplorer.jks -storepass XXXX -storetype JKS
```

To import CA root certificate:

```
>keytool -import -v -trustcacerts -alias YOUR_CA_ROOT -file root.cer -keystore TSMExplorer.jks -storepass XXXX -storetype JKS
```

To import CA intermediate certificate:

```
>keytool -import -v -trustcacerts -alias YOUR_CA_INTERMEDIATE -file intermediate.cer -keystore TSMExplorer.jks -storepass XXXX -storetype JKS
```

To import signed certificate:

```
>keytool -import -v -alias tsmsrv.yourdomain.com -file tsmsrv.yourdomain.com.cer -keypass XXXX -keystore TSMExplorer.jks -storepass XXXX -storetype JKS
```

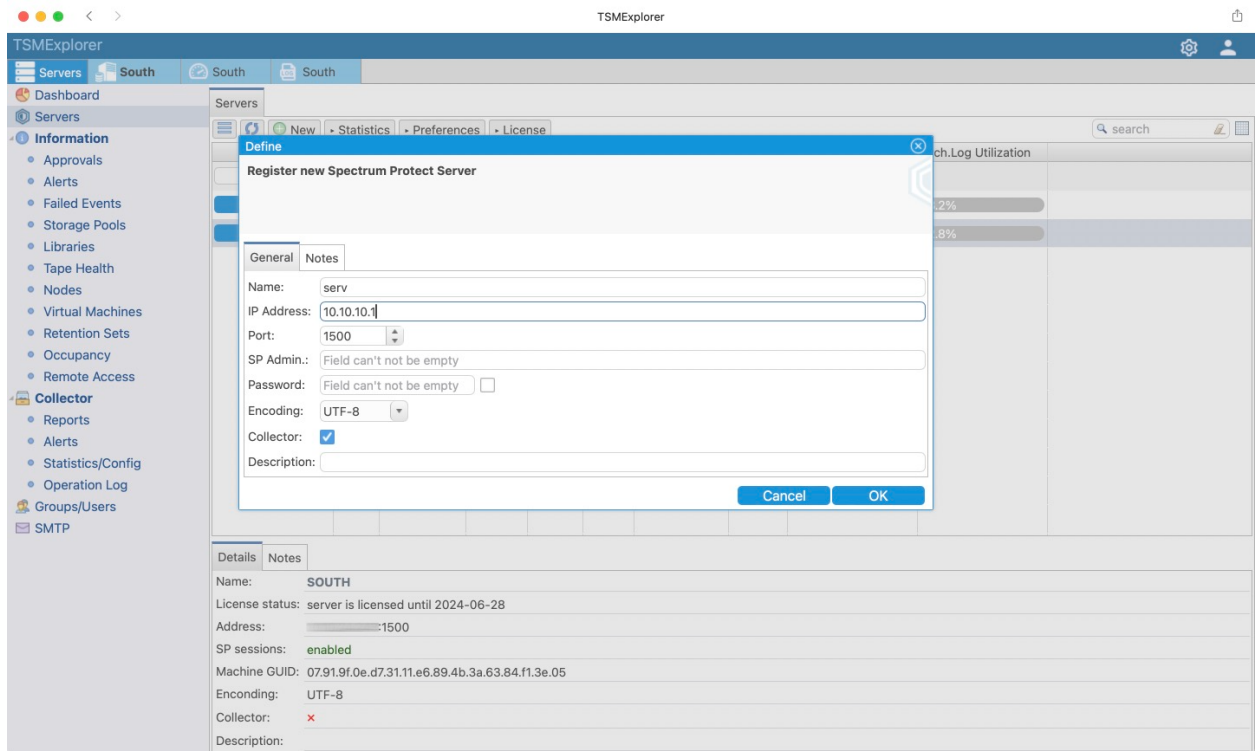
To list certificates in keystore:

>**keytool -list -v -keystore TSMExplorer.jks -storepass XXXX -storetype JKS**

Or use <https://keystore-explorer.org> for generate jks file from imported CA root certificate

Registration of any new SP Server in TSMExplorer includes the following properties:

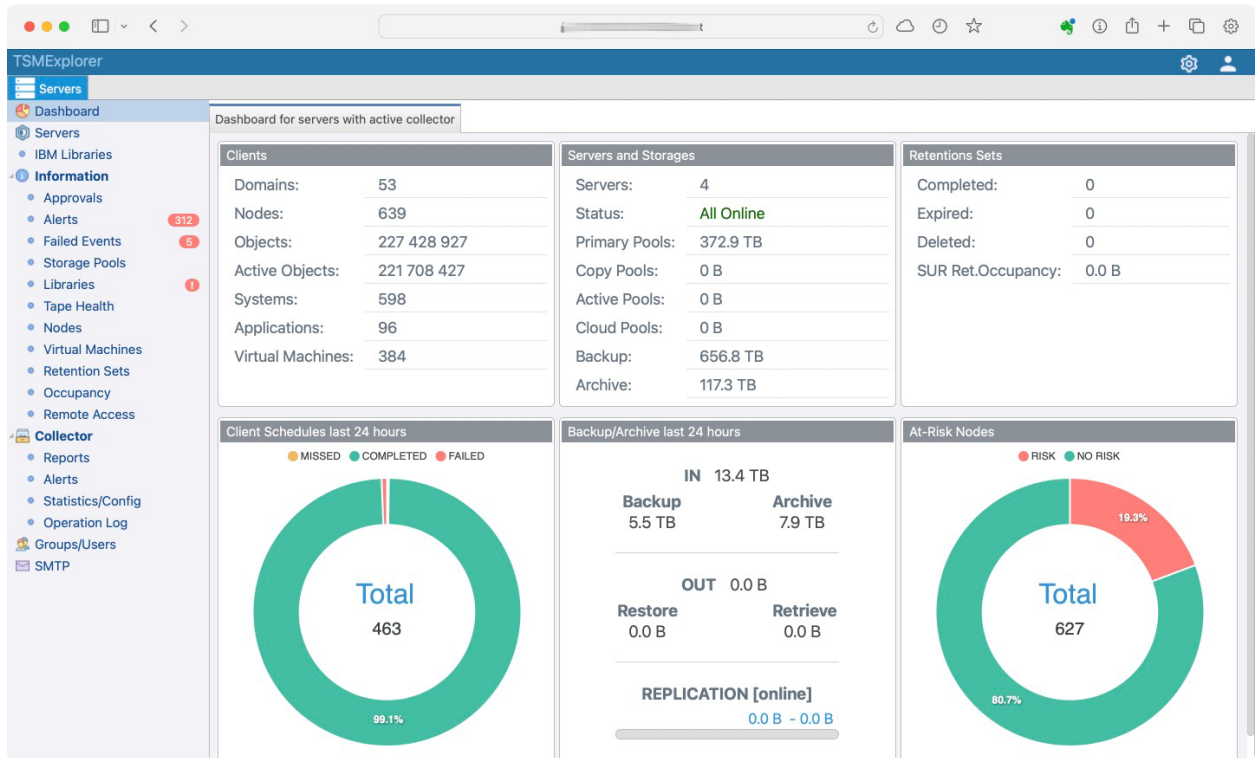
- Name of SP Server
- SP server address (TCP/IP address)
- SP server port number
- Name of SP server administrator
- Password of SP server administrator
- Encoding message from SP server (for different localization of SP)
- Enable/Disable collection data from SP server
- SP server description



After registration, the SP server will appear in the list. Available SP server gets **online** status.

All passwords are encrypted and stored in database.

Use this command «**accept date**» from menu to cause the server to accept the current date and time as valid when an invalid date and time are detected.



TSM Explorer Servers

3:5020/start

Server	Status	Address	Version	Platform	License	Uptime	Collector	Database Utilization	Arch.Log Utilization
BAI-12	Online	10.10.10.0	7.1.7.0	Windows	true	12 days 02:38	✗	58.6%	16.0%
CO-12TH	Online	10.10.10.2	7.1.10.100	AIX	true	124 days 02:38	✓	82.4%	13.5%
CO-12TH	Online	10.10.10.13	7.1.10.100	AIX	true	31 days 20:14	✓	76.3%	2.9%
KL-12O	Online	10.10.10.4	8.1.22.0	Linux/x86_64	true	1 days 14:17	✓	0.3%	4.0%
KL-12M	Online	10.10.10.43	8.1.22.0	Linux/x86_64	true	3 days 15:11	✓	14.7%	29.3%
KLN-T-12OSA	Offline	10.10.10.43			false		✗		
LA-12	Online	10.10.10.7	8.1.6.0	Windows	true	3 days 02:56	✗	3.9%	62.4%

Details

Name: BAI-12

License status: server is licensed until 2024-06-28

Address: 10.10.10.0:1500

SP sessions: enabled

Machine GUID: 45.9a.e6.b0.0f.df.11.e3.8b.73.5c.f3.fc.e5.ad.d4

Encoding: UTF-8

Collector: ✗

Description:

TSMExplorer Interface

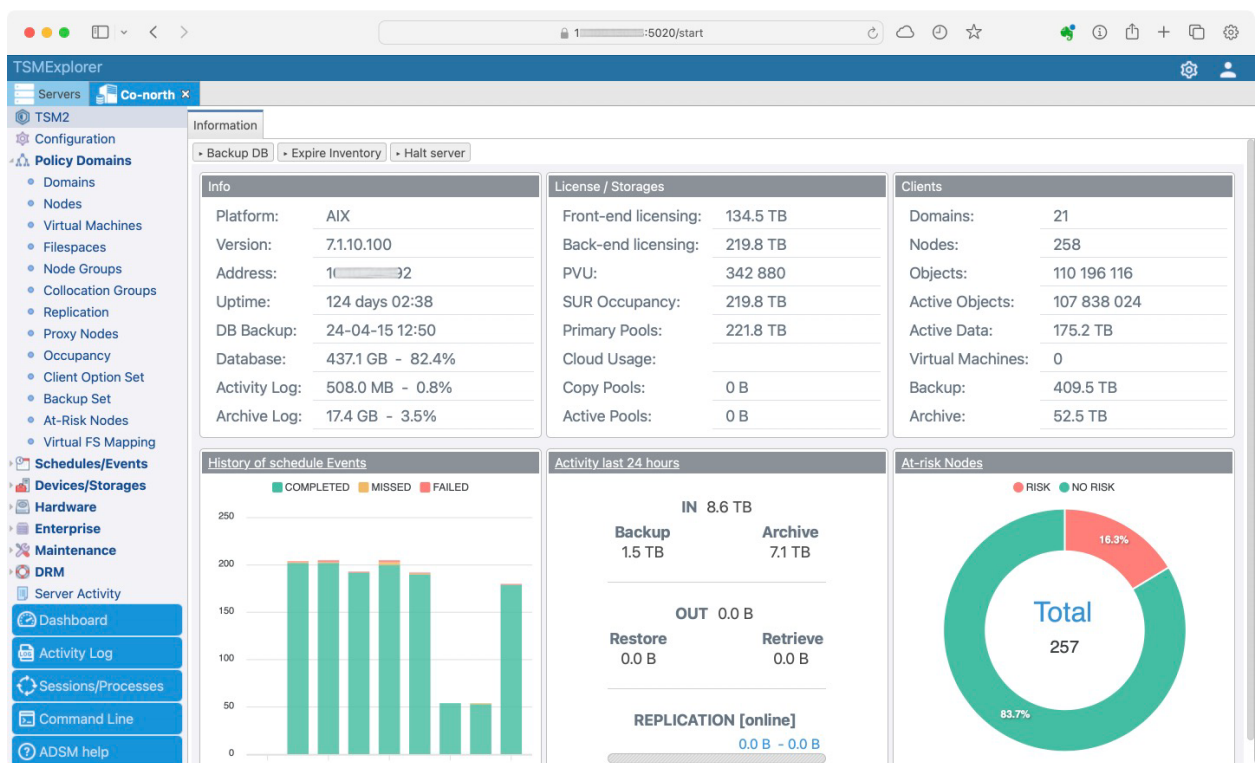
TSMExplorer layout consists of 3 main parts:

- Spectrum Protect logical component tree on the left.
- When selecting a tree component its full information opens on the right.
- The buttons for opening separate windows are situated in the left bottom corner.

Any element of the logical tree can open and have a menu that is activated by the right mouse button. Any list of data has a menu that is activated by the right mouse button.

Dialog windows have the HELP button to display a window with information on the current operation.

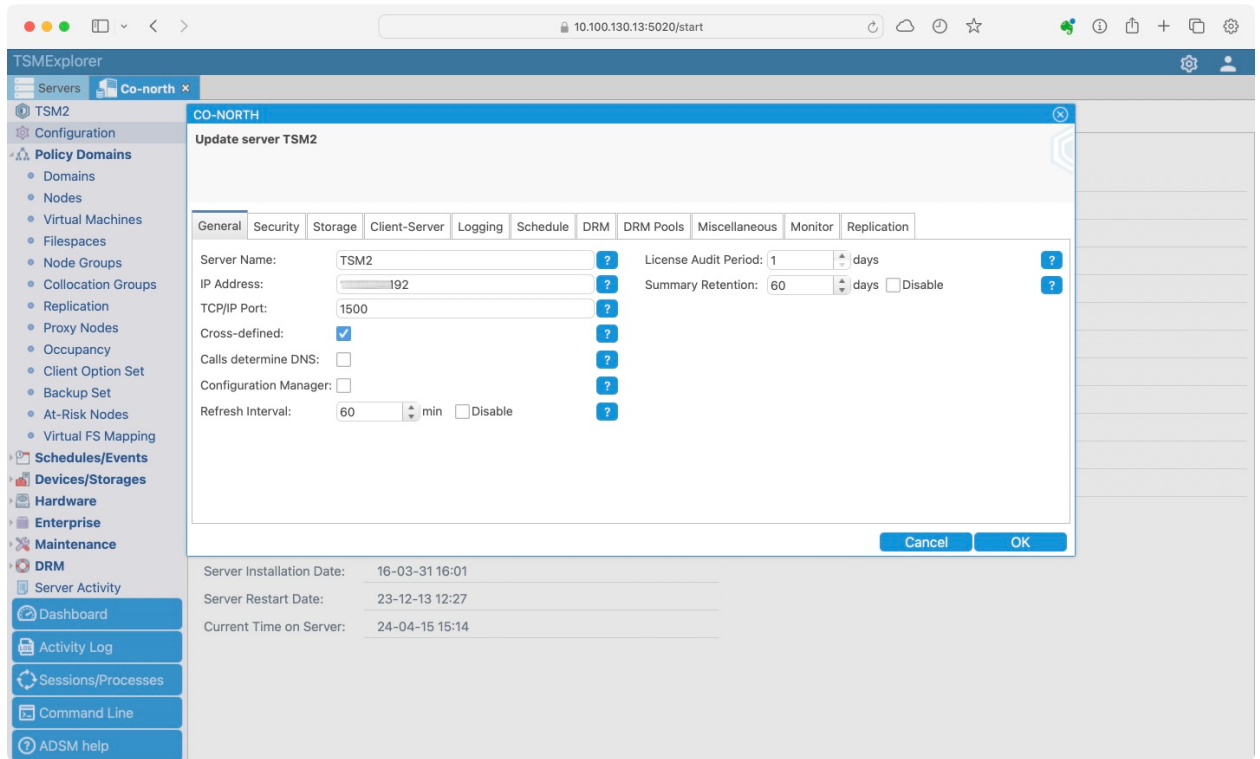
Most lists can be exported to HTML, CSV or PDF format.



Server configuration

“Server name” root item opens the SP server properties description.

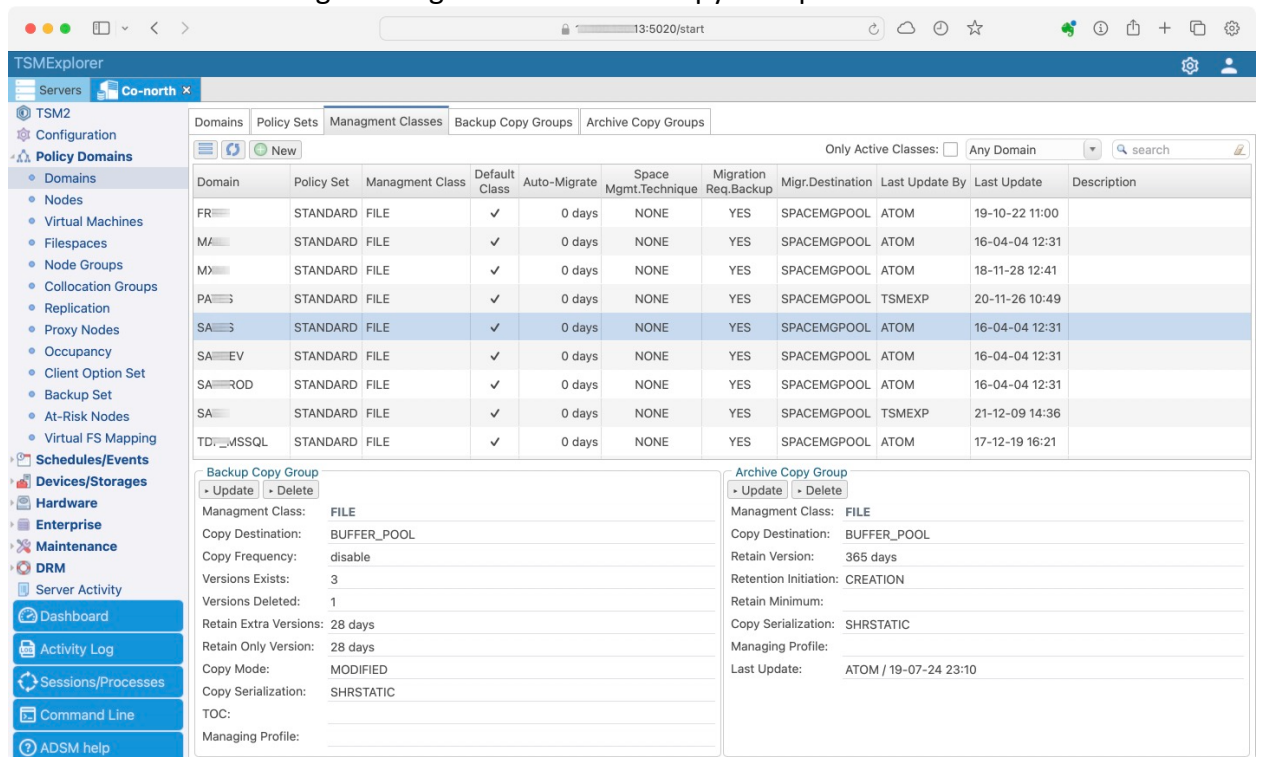
Server properties are grouped into tabs for convenient viewing.



Domains

Policy Domain item allows to perform the following operations:

- Create and change Domains, Policy Set
- Create and change Management class and Copy Groups



TSM Explorer - Domains

Domain	Policy Set	Management Class	Default Class	Auto-Migrate	Space Mgmt. Technique	Migration Req. Backup	Migr. Destination	Last Update By	Last Update	Description
FR	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	ATOM	19-10-22 11:00	
MA	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	ATOM	16-04-04 12:31	
MX	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	ATOM	18-11-28 12:41	
PA	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	TSMEXP	20-11-26 10:49	
SA-EV	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	ATOM	16-04-04 12:31	
SA-ROD	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	ATOM	16-04-04 12:31	
SA	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	TSMEXP	21-12-09 14:36	
TD_MSSQL	STANDARD	FILE	✓	0 days	NONE	YES	SPACEMGPOOL	ATOM	17-12-19 16:21	

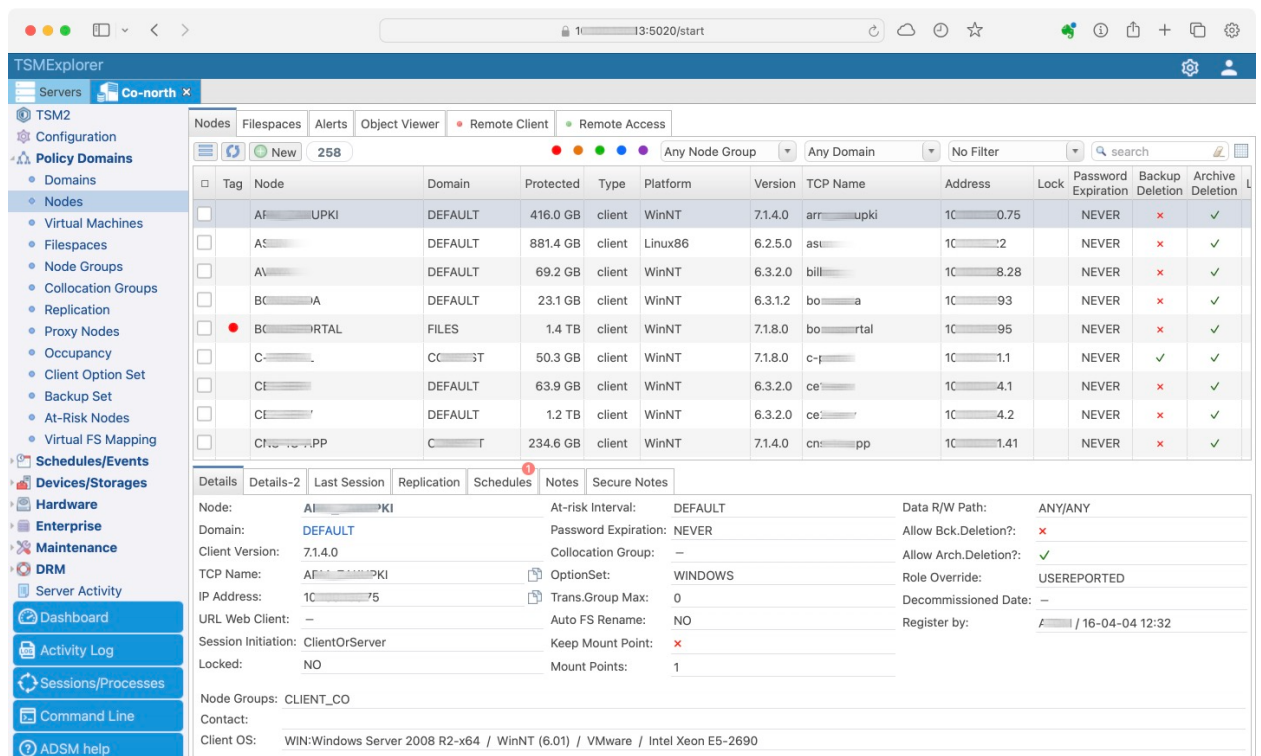
Backup Copy Group

Management Class: FILE
Copy Destination: BUFFER_POOL
Copy Frequency: disable
Versions Exists: 3
Versions Deleted: 1
Retain Extra Versions: 28 days
Retain Only Version: 28 days
Copy Mode: MODIFIED
Copy Serialization: SHRSTATIC
TOC:
Managing Profile:

Archive Copy Group

Management Class: FILE
Copy Destination: BUFFER_POOL
Retain Version: 365 days
Retention Initiation: CREATION
Retain Minimum:
Copy Serialization: SHRSTATIC
Managing Profile:
Last Update: ATOM / 19-07-24 23:10

Nodes



TSM Explorer - Nodes

Tag	Node	Domain	Protected	Type	Platform	Version	TCP Name	Address	Lock	Password Expiration	Backup Deletion	Archive Deletion
AP	UPKI	DEFAULT	416.0 GB	client	WinNT	7.1.4.0	arr-upki	10.0.0.75		NEVER	×	✓
AS		DEFAULT	881.4 GB	client	Linux86	6.2.5.0	ast	10.0.0.2		NEVER	×	✓
AV		DEFAULT	69.2 GB	client	WinNT	6.3.2.0	bill	10.0.0.28		NEVER	×	✓
BO	RTAL	DEFAULT	23.1 GB	client	WinNT	6.3.1.2	bo-rtal	10.0.0.93		NEVER	×	✓
BO	RTAL	FILES	1.4 TB	client	WinNT	7.1.8.0	bo-rtal	10.0.0.95		NEVER	×	✓
C		CO	50.3 GB	client	WinNT	7.1.8.0	c-	10.0.0.11		NEVER	✓	✓
CE		DEFAULT	63.9 GB	client	WinNT	6.3.2.0	ce	10.0.0.41		NEVER	×	✓
CE		DEFAULT	1.2 TB	client	WinNT	6.3.2.0	ce	10.0.0.42		NEVER	×	✓
CN	PP	C	234.6 GB	client	WinNT	7.1.4.0	cn-pp	10.0.0.141		NEVER	×	✓

Details - C-PP

Node: AP-UPKI
Domain: DEFAULT
Client Version: 7.1.4.0
TCP Name: AP-UPKI
IP Address: 10.0.0.75
URL Web Client: -
Session Initiation: ClientOrServer
Locked: NO
Node Groups: CLIENT_CO
Contact:
Client OS: WIN:Windows Server 2008 R2-x64 / WinNT (6.01) / VMware / Intel Xeon E5-2690

At-risk Interval: DEFAULT
Password Expiration: NEVER
Collocation Group: -
OptionSet: WINDOWS
Trans.Group Max: 0
Auto FS Rename: NO
Keep Mount Point: ×
Mount Points: 1

Data R/W Path: ANY/JANY
Allow Bck.Deletion?: ×
Allow Arch.Deletion?: ✓
Role Override: USERREPORTED
Decommissioned Date: -
Register by: / 16-04-04 12:32

Occupancy

The screenshot shows the TSM Explorer interface. On the left is a navigation pane with categories like Policy Domains, Schedules/Events, and Hardware. The main area displays a table of nodes. Below the table, the 'Details' tab is selected, showing configuration for a specific node.

Tag	Node	Domain	Protected	Type	Platform	Version	TCP Name	Address	Lock	Password Expiration	Backup Deletion	Archive Deletion
	AF-UPKI	DEFAULT	416.0 GB	client	WinNT	7.1.4.0	arr-upki	10.0.0.75		NEVER	x	✓
	AS-	DEFAULT	881.4 GB	client	Linux86	6.2.5.0	asu-	10.0.0.2		NEVER	x	✓
	AV-	DEFAULT	69.2 GB	client	WinNT	6.3.2.0	bill-	10.0.0.8.28		NEVER	x	✓
	BC-IA	DEFAULT	23.1 GB	client	WinNT	6.3.1.2	bo-a	10.0.0.93		NEVER	x	✓
	BC-PORTAL	FILES	1.4 TB	client	WinNT	7.1.8.0	bo-rtal	10.0.0.95		NEVER	x	✓
	C-	CC-ST	50.3 GB	client	WinNT	7.1.8.0	c-	10.0.0.1.1		NEVER	✓	✓
	CE-	DEFAULT	63.9 GB	client	WinNT	6.3.2.0	ce-	10.0.0.4.1		NEVER	x	✓
	CE-	DEFAULT	1.2 TB	client	WinNT	6.3.2.0	ce-	10.0.0.4.2		NEVER	x	✓
	CN-PP	C-T	234.6 GB	client	WinNT	7.1.4.0	cn-pp	10.0.0.1.41		NEVER	x	✓

Details Details-2 Last Session Replication Schedules Notes Secure Notes

Node: AF-UPKI At-risk Interval: DEFAULT Data R/W Path: ANY/ANY
 Domain: DEFAULT Password Expiration: NEVER Allow Bck.Deletion?: x
 Client Version: 7.1.4.0 Collocation Group: - Allow Arch.Deletion?: ✓
 TCP Name: AF-UPKI OptionSet: WINDOWS Role Override: USERREPORTED
 IP Address: 10.0.0.75 Trans.Group Max: 0 Decommissioned Date: -
 URL Web Client: - Auto FS Rename: NO Register by: / 16-04-04 12:32
 Session Initiation: ClientOrServer Keep Mount Point: x
 Locked: NO Mount Points: 1

Node Groups: CLIENT_CO
 Contact:
 Client OS: WIN:Windows Server 2008 R2-x64 / WinNT (6.01) / VMware / Intel Xeon E5-2690

Collocation groups

The screenshot shows the TSM Explorer interface with the 'Collocation Groups' tab selected. It displays a table of collocation groups and a detailed view of the 'FILES' group.

Collocation Group	Objects	Description
FILES	5	

Associated Nodes/Filespaces - FILES

Node	Colloc.Type	Filespace
BC-PORTAL	NODE	
FS-	NODE	
KH-CKUP	NODE	
SE-	NODE	
RE-1	NODE	

Details
 Node: BONUSPORTAL
 Domain: FILES
 IP Address: 10.0.0.95
 TCP Name: BONUSPORTAL

Node groups

Servers

Co-north

TSM2

Configuration

Policy Domains

- Domains
- Nodes
- Virtual Machines
- Filespaces
- Node Groups
- Collocation Groups
- Replication
- Proxy Nodes
- Occupancy
- Client Option Set
- Backup Set
- At-Risk Nodes
- Virtual FS Mapping

Schedules/Events

Devices/Storages

Hardware

Enterprise

Maintenance

DRM

Server Activity

Dashboard

Activity Log

Sessions/Processes

Command Line

ADSM help

Node Groups

Nodes Groups

Nodes

Description

CL

171

CL

ISYST

10

CL

P

10

CN

2

DE

OSPO

2

DE

5

EX

RT

5 report

FIL

5

HA

5

ISC

1 report

KF

GROUP

4

OC

T

2 report

OS

RT

13 report

RE

GROUP

2

RE

PORT

2

SA

40

TD

24

TE

7

TC

T

22

VIR.REPORT

2 report

Associated Nodes - CLIENT_CO

Associate Nodes

171

Node

ARM

UPKI

ASU

AVA

BON

ORTAL

CE1

CON

CON

XCH

CON

DCC

DCR

DOC

DOC

DOC

_DB

DOC

/ER

FSE

GRC

Details

Domain: DEFAULT

Node: AR

IP Address: 10.

TCP Name: AR

Virtual Machines

Servers

Co-north

Co-south

TSM1

Configuration

Policy Domains

- Domains
- Nodes
- Virtual Machines
- Filespaces
- Node Groups
- Collocation Groups
- Replication
- Proxy Nodes
- Occupancy
- Client Option Set
- Backup Set
- At-Risk Nodes
- Virtual FS Mapping

Schedules/Events

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Server Activity

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Sessions/Processes

Command Line

ADSM help

Virtual Machines

Activity

384

Physical: 24.9 TB

Logical: 134.6 TB

At-Risk: 750H

Risk VMs:

Any VM Owner

search

Virtual Machine	Power	Type	VM Owner	Reporting	Physical	Saved	Saved %	Risk Interval	Since Last Backup	Last Backup	Elapsed Time
ac	✓	VMWare	M_FE-MC-DATACENTER	556.8 GB	44.7 GB	511.7 GB	91.96 %	default	11 days	24-04-04 01:46	00:36:57
ac	✓	VMWare	M_FE-MC-DATACENTER	300.3 GB	8.2 GB	291.9 GB	97.26 %	default	11 days	24-04-04 01:32	00:04:07
ak	✓	VMWare	M_FE-MC-DATACENTER	43.2 GB	4.7 GB	38.4 GB	89.03 %	default	17 days	24-03-29 01:15	00:06:52
AK	✓	VMWare	M_FE-MC-DATACENTER	74.6 GB	8.0 GB	66.6 GB	89.28 %	default	17 days	24-03-29 01:16	00:05:17
arr	✓	VMWare	M_FE-MC-DATACENTER	732.7 GB	444.1 GB	288.4 GB	39.37 %	default	24 days	24-03-22 01:14	01:49:47
AF	✓	VMWare	M_FE-MC-DATACENTER	126.1 GB	45.8 GB	80.2 GB	63.67 %	default	11 days	24-04-04 01:02	00:55:45
arr	✓	VMWare	M_FE-MC-DATACENTER	89.2 GB	21.2 GB	67.9 GB	76.18 %	default	11 days	24-04-04 01:02	00:29:27
arr	✓	VMWare	M_FE-MC-DATACENTER	98.9 GB	29.3 GB	69.6 GB	70.39 %	default	11 days	24-04-04 01:02	00:29:23
arr	✓	VMWare	M_FE-MC-DATACENTER	98.6 GB	25.0 GB	73.6 GB	74.65 %	default	11 days	24-04-04 01:32	00:14:56
arr	✓	VMWare	M_FE-MC-DATACENTER	84.8 GB	16.4 GB	68.4 GB	80.64 %	default	11 days	24-04-04 01:32	00:10:46
AS	✓	VMWare	M_FE-MC-DATACENTER	111.5 GB	4.8 GB	106.7 GB	95.73 %	default	14 days	24-04-01 01:43	00:02:58
C	✓	VMWare	M_FE-MC-DATACENTER	927.7 GB	657.3 GB	270.0 GB	29.11 %	default	30 days	24-03-16 01:12	05:14:31

Details

Restore Points

VM: acsrv4

Host Name: acsrv4

Size: 556.8 GB

Last Backup: 24-04-04 01:46 / 11 days ago

OS: Other 4.x or later Linux (64-bit)

Type: VMware Virtual Machine

IP Address: 10.

Power State: POWERED_ON

Schedules/Events

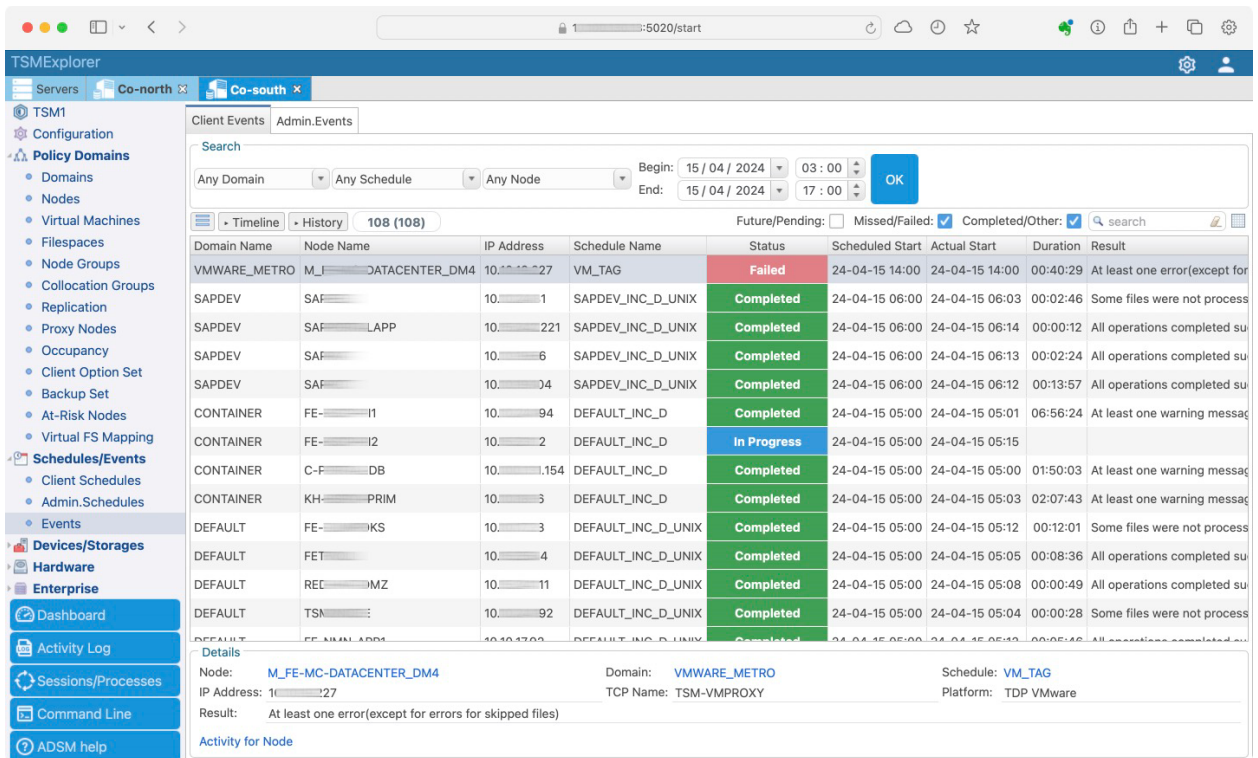
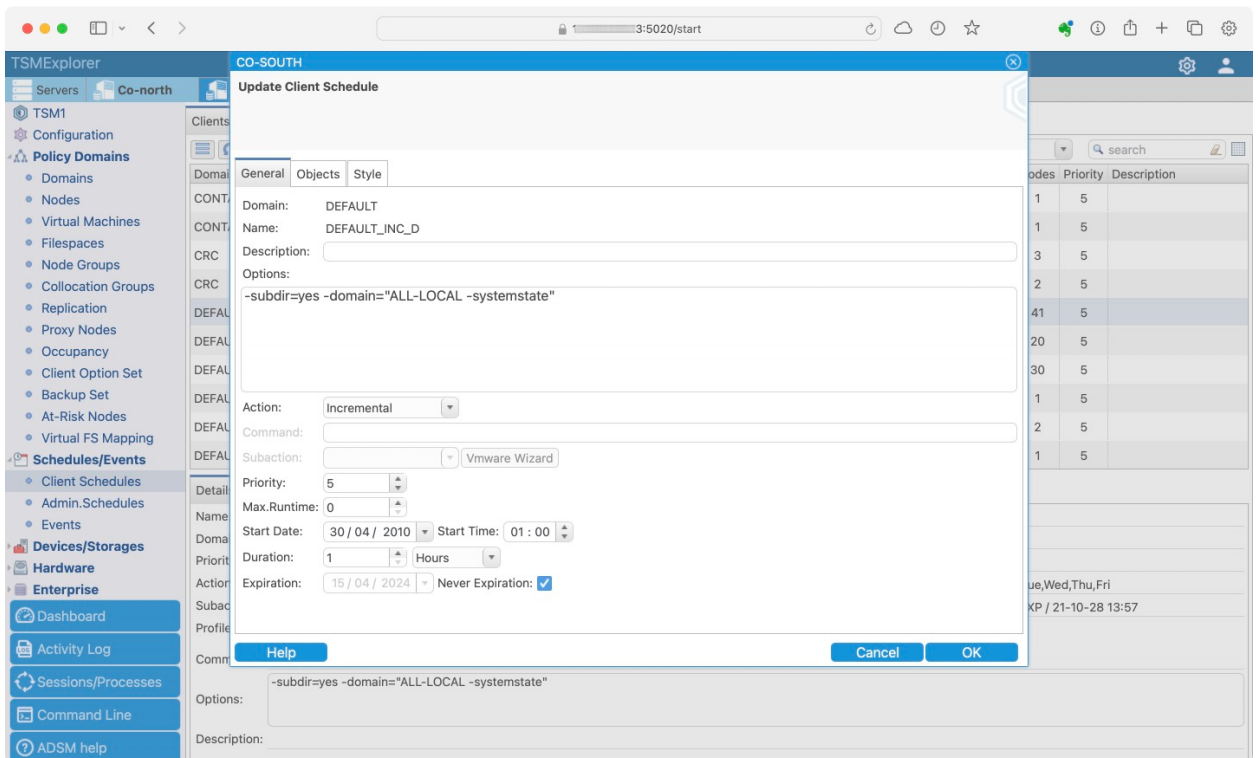
Schedule item allows to perform operations:

- Create and change Client's schedules
 - TSMExplorer has a convenient interface for viewing, creating and changing client's schedules, viewing and changing the associations of client nodes and schedules.
- Create and change administrative schedules
- View Events/Events timeline
 - TSMExplorer allows viewing the events related to client and administrative schedules, as well as viewing graphical image of the start time and the duration of schedule for estimation of the schedule window load.

The screenshot shows the TSMExplorer web interface. The left sidebar contains a navigation menu with categories like Policy Domains, Schedules/Events, and Hardware. The main area displays a table of 'Clients Schedules' with columns for Domain, Schedule, Action, Type, Period, Start Time, Day of Month, Day of Week, Duration, Nodes, Priority, and Description. Below the table, the 'Details' tab is selected for the 'DEFAULT_INC_D' schedule, showing various configuration parameters.

Domain	Schedule	Action	Type	Period	Start Time	Day of Month	Day of Week	Duration	Nodes	Priority	Description
CONTAINER	UNIX_DBF_W	Command	Enh.		23:00	Any	Mo Tu We Th Fr Sa Su	1 hours	1	5	
CONTAINER	UNIX_DBF_D	Command	Enh.		23:00	Any	Mo Tu We Th Fr Sa Su	1 hours	1	5	
CRC	DEFAULT_INC_D	Incremental	Enh.		04:00	Any	Mo Tu We Th Fr Sa Su	2 hours	3	5	
CRC	DEFAULT_INC_D_ALL	Incremental	Enh.		04:00	Any	Mo Tu We Th Fr Sa Su	2 hours	2	5	
DEFAULT	DEFAULT_INC_D	Incremental	Enh.		01:00	Any	Mo Tu We Th Fr Sa Su	1 hours	41	5	
DEFAULT	DEFAULT_INC_D_UNIX	Incremental	Enh.		05:00	Any	Mo Tu We Th Fr Sa Su	1 hours	20	5	
DEFAULT	DEFAULT_SYSTEM_STATE	Backup	Enh.		15:00	Any	Mo Tu We Th Fr Sa Su	3 hours	30	5	
DEFAULT	DEFAULT_WIN_DBA_D	Command	Enh.		23:00	Any	Mo Tu We Th Fr Sa Su	1 hours	1	5	
DEFAULT	DEFAULT_WIN_DBF_W	Command	Enh.		23:00	Any	Mo Tu We Th Fr Sa Su	1 hours	2	5	
DEFAULT	FE-ORAGENTMANAGER	Incremental	Enh.		03:00	Any	Mo Tu We Th Fr Sa Su	1 hours	1	5	

Details			
Name:	DEFAULT_INC_D	Start Schedule:	2010-04-30 04:00
Domain:	ASIO	Duration:	1 hours
Priority:	5	Period:	
Action:	INCREMENTAL	Expiration:	Never
Subaction:		Schedule Style:	ENHANCED
Profile:		Max.Run Time:	0 min.
Command:	-subdir=yes -domain="ALL-LOCAL -systemstate"		
Options:			
Description:			



Device Classes/Storage Pools

Device Classes/Storage Pools item allows to:

- Create, change, delete, define Device Classes
- Create, change, delete Storage Pools
- Define Volumes for Storage Pool and perform operations on them

View Occupancy and Chart Occupancy

The screenshot shows the TSM Explorer interface with the 'Storage Pools' tab selected for the 'Co-south' server. The left sidebar contains a navigation tree with categories like Files, Schedules, and Hardware. The main area displays a table of storage pools and a details pane for the selected 'BUFFER_POOL'.

Device Class	Storage Pool	Storage Type	Pool Type	Capacity	Utilization	Pct. Migr	Low Mig	High Mig	Next Pool	Access	Cache	Copy Pool
DISK	BUFFER_POOL	DEVCLASS	PRIMARY	2.9 TB	74.0%	74.0 %	15 %	75 %	LTOPOOL	READWRITE	NO	
LTOLIB	LTOPOOL	DEVCLASS	PRIMARY	341.4 TB	43.4%	96.4 %	99 %	100 %		READWRITE		

Details - BUFFER_POOL

- Storage Pool: BUFFER_POOL
- Storage Type: DEVCLASS
- Stg.Pool Type: PRIMARY
- Device Class: DISK
- Access Mode: READWRITE
- Next Pool: LTOPOOL
- Capacity: 2.9 TB
- Pct.Migration: 74.0 %
- Pct.Logical: 100.0 %
- Max.File Size: Nolimit
- Threshold migration: 15 % - 75 %
- Cache Migrated Files: NO
- Migration Processes: 2
- Migration Continue: YES
- Collocate:
- Reuse Delay: No delay
- Data Encryption:

Copy Storage Pools:
Active Data Pools:
Description:

The screenshot shows the TSM Explorer interface with the 'Device Classes' tab selected for the 'Co-south' server. The left sidebar is the same as the previous screenshot. The main area displays a table of device classes and a table of storage pools.

Device Class	Device Type	Device Access	Stg.Pool Count	Library Name	Format	Mount Limit	Est/Max Capacity
DISK		Random	2				
DBB	LTO	Sequential	0	TS3500	DRIVE	1	
LTOLIB	LTO	Sequential	1	TS3500	DRIVE	DRIVES	

Storage pools

Storage Pool	Storage Type	Device Class	Pool Type	Capacity	Utilization	Pct. Migr	Low Mig	High Mig	Mig.Proc	Next Pool	Access	Cache	Copy Pool
BUFFER_POOL	DEVCLASS	DISK	PRIMARY	4.1 TB	18.8 %	18.8 %	10 %	60 %	1	LTOPOOL	READWRITE	NO	
LTOPOOL	DEVCLASS	LTOLIB	PRIMARY	417.7 TB	14.5 %	58.2 %	20 %	100 %	1		READWRITE		
R3_STGPOOL	DIRECTORY	PRIMARY	PRIMARY	60.0 TB	71.6 %						READWRITE		
VMCTL	DEVCLASS	DISK	PRIMARY	200.0 GB	53.2 %	53.2 %	70 %	90 %	1		READWRITE	NO	
VMWARE_STGPOOL	DIRECTORY	PRIMARY	PRIMARY	30.0 TB	76.3 %						READWRITE		

Servers

Co-north

Co-south

Filespaces

Node Groups

Collocation Groups

Replication

Proxy Nodes

Occupancy

Client Option Set

Backup Set

At-Risk Nodes

Virtual FS Mapping

Schedules/Events

Client Schedules

Admin.Schedules

Events

Devices/Storages

Device Classes

Storage Pools

Containers

Cloud

Hardware

Enterprise

Maintenance

DRM

Dashboard

Activity Log

Sessions/Processes

Command Line

ADSM help

Storage Pools

Volumes

Occupancy

Any Status

Any Access

search

Status	Volume	Capacity	Utilization	Access	Read Err	Write Err	Mounted	Last Update
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm000	200.0 GB	69.2%	READWRITE				19-07-24 19:00
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm001	200.0 GB	77.8%	READWRITE				19-07-24 19:01
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm002	200.0 GB	78.0%	READWRITE				19-07-24 19:01
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm003	200.0 GB	1.1%	READWRITE				19-07-24 19:01
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm004	200.0 GB	100.0%	READWRITE				19-07-24 19:01
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm005	200.0 GB	81.9%	READWRITE				19-07-24 19:02
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm006	200.0 GB	68.0%	READWRITE				19-07-24 19:03
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm007	200.0 GB	100.0%	READWRITE				19-07-24 19:03
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm008	200.0 GB	100.0%	READWRITE				19-07-24 21:02
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm009	200.0 GB	89.1%	READWRITE				19-07-24 21:03
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm010	200.0 GB	55.7%	READWRITE				19-07-25 11:22
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm011	200.0 GB	60.4%	READWRITE				19-08-19 17:05
<input type="checkbox"/>	ONLINE /netapp/pools/diskpool/disk.dsm012	200.0 GB	89.7%	READWRITE				19-08-19 17:05

Details

Device Class: DISK

Volume Name: /netapp/pools/diskpool/disk.dsm000

Storage Pool: BUFFER_POOL

Capacity: 200.0 GB

Pct.Utilization: 69.2 %

Status: ONLINE

Access Mode: READWRITE

Pct.Reclaimable: %

Scratch Volume?:

In Error State?:

Num of Writable Sides:

Times Mounted:

Write Pass Number:

Location:

Write Errors:

Read Errors:

Date Became Pending:

Begin Reclaim Period:

End Reclaim Period:

LB Protection:

Last Update: ATOM / 19-07-24 19:00

Last Written:

Last Read:

Co-north

Co-south

CO-NORTH

Storage Pools

Volumes

Occupancy

General

Migration/Reclamation

Copy Storage Pools

Active Storage Pools

Storage Pool: LTPOOL

Pool Type: PRIMARY

Storage Type: DEVCLASS

Max.Scratch Volumes: 194

Access Mode: ReadWrite

Max.File Size: K,M,G,T No Limit

CRC Data: ☒

Collocate: No

Next Pool:

Reuse Delay: 1 days

Overflow Location:

Description:

Help

Cancel

OK

Access Mode: READWRITE

Next Pool: -

Capacity: 341.4 TB

Pct.Migration: 96.4 %

Pct.Logical: 99.4 %

Copy Storage Pools:

Active Data Pools:

Description:

Migration Continue: YES

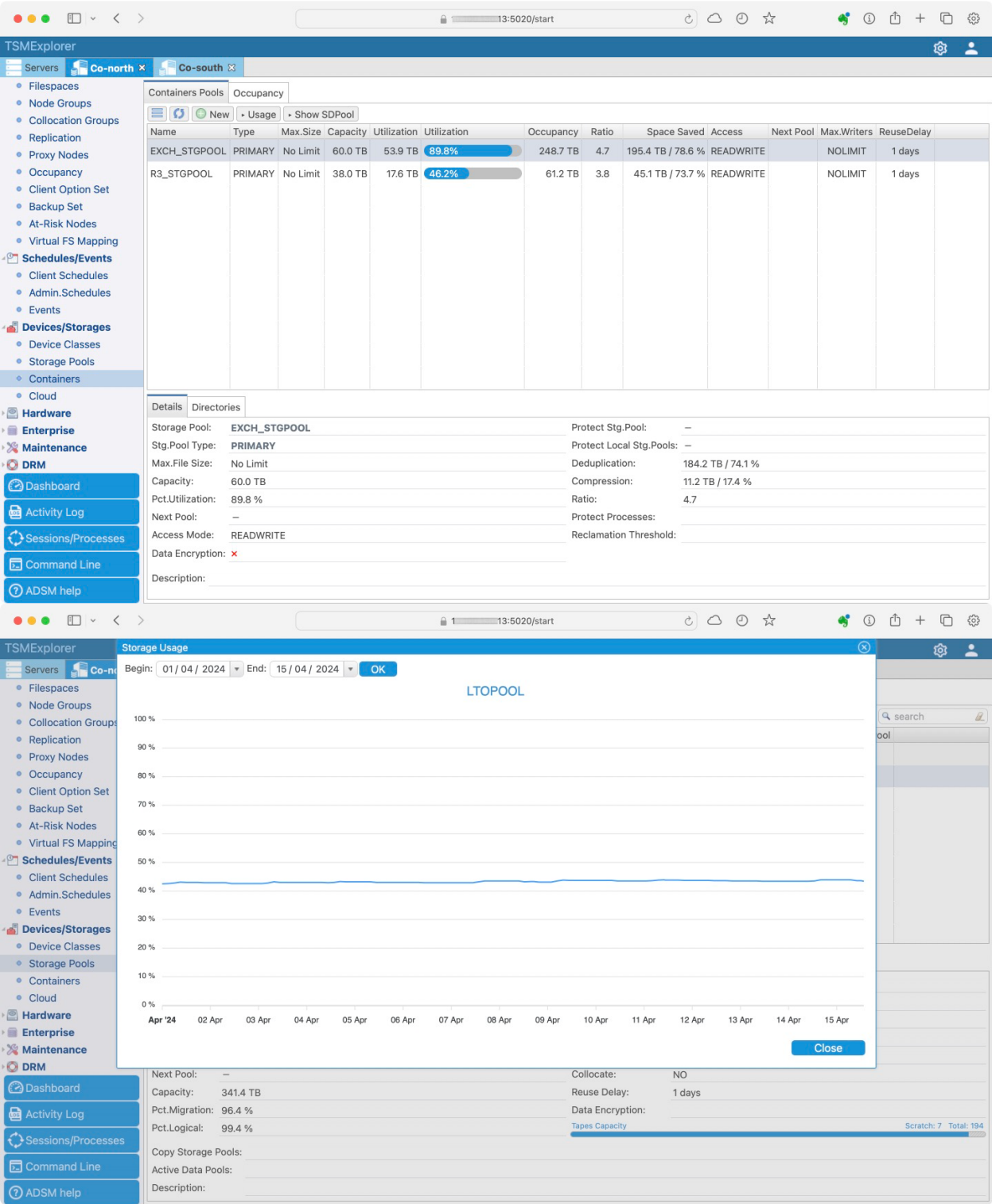
Collocate: NO

Reuse Delay: 1 days

Data Encryption:

Tapes Capacity

Scratch: 7 Total: 194



Hardware

Hardware item allows to:

- Create, change, delete libraries and define paths to them
- Create, change, delete drives and define paths to them
- View volumes
- Perform check-in, checkout, label operations
- Define data movers
- View SAN devices

The screenshot shows the TSM Explorer interface with the 'Hardware' section selected in the left sidebar. The main pane displays a table of drives for the 'TS3500' library. Below the table, the 'Details' section provides specific information for the selected drive, 'DRIVE02'.

On-Line	Library	Drive	Device Type	Drive State	Volume Name	Element	Serial Number	WWN	Write Format
✓	TS3500	DRIVE02	LTO	EMPTY		257	00078A0CA2	500507630F050704	ULTRIUM5C,ULTRIUM5,UL
✓	TS3500	DRIVE03	LTO	LOADED	L50161L5	259	00078AE977	500507630F050706	ULTRIUM5C,ULTRIUM5,UL
✓	TS3500	DRIVE04	LTO	LOADED	L50231L5	260	00078AE966	500507630F050707	ULTRIUM5C,ULTRIUM5,UL
✓	TS3500	DRIVE05	LTO	EMPTY		258	00078AE95D	500507630F050708	ULTRIUM5C,ULTRIUM5,UL
✓	TS3500	DRIVE06	LTO	EMPTY		262	00078AE960	500507630F050705	ULTRIUM5C,ULTRIUM5,UL

Details for DRIVE02:

- Drive: DRIVE02
- Library Name: TS3500
- Device Type: LTO
- On-Line: YES
- Read Formats: ULTRIUM5C,ULTRIUM5,ULTRIUM4C,ULTRIUM4,ULTRIUM3C,ULTRIUM3
- Write Formats: ULTRIUM5C,ULTRIUM5,ULTRIUM4C,ULTRIUM4
- Element: 257
- Drive State: EMPTY
- Volume Name:
- Allocated to:
- Serial Number: 00078A0CA2
- Cleaning Frequency: NONE
- WWN: 500507630F050704
- Last Update: TSMEXP / 23-06-06 10:02

The screenshot shows the TSM Explorer interface with the 'Hardware' section selected in the left sidebar. The main pane displays a table of volumes for the 'TS3500' library. Below the table, the 'Details' section provides specific information for the selected volume, 'AB0020L5'.

Library Name	Volume Name	Status	Last Use	Device Type	Media Type	Home Element	Owner	Cleanings Left
TS3500	AB0020L5	Private	Data	LTO	LTO-5	1129		
TS3500	AB0021L5	Private	Data	LTO	LTO-5	1042		
TS3500	AB0022L5	Private	Data	LTO	LTO-5	1098		
TS3500	AB0023L5	Scratch		LTO	LTO-5	1054		
TS3500	AB0024L5	Private	Data	LTO	LTO-5	1130		
TS3500	AB0025L5	Private	Data	LTO	LTO-5	1093		
TS3500	AB0026L5	Private	Data	LTO	LTO-5	1062		
TS3500	AB0027L5	Private	Data	LTO	LTO-5	1131		
TS3500	AB0028L5	Private	Data	LTO	LTO-5	1051		
TS3500	AB0029L5	Private	Data	LTO	LTO-5	1080		
TS3500	AB0030L5	Private	Data	LTO	LTO-5	1033		
TS3500	AB0031L5	Private	Data	LTO	LTO-5	1060		
TS3500	AB0032L5	Private	Data	LTO	LTO-5	1072		
TS3500	AB0033L5	Private	Data	LTO	LTO-5	1041		
TS3500	AB0034L5	Private	Data	LTO	LTO-5	1034		
TS3500	AB0035L5	Private	Data	LTO	LTO-5	1132		
TS3500	AB0036L5	Private	Data	LTO	LTO-5	1082		
TS3500	AB0037L5	Private	Data	LTO	LTO-5	1133		

Details for AB0020L5:

- Status: Private
- Volume: AB0020L5

Enterprise Administration

Enterprise Administration item allows to manage server's interaction

The screenshot shows the TSM Explorer web interface. The left sidebar contains a navigation menu with the following items: Servers, Backup Set, At-Risk Nodes, Virtual FS Mapping, Schedules/Events (expanded), Client Schedules, Admin.Schedules, Events, Devices/Storages (expanded), Device Classes, Storage Pools, Containers, Cloud, Hardware (expanded), Libraries, Data Movers, SAN, and Enterprise (expanded). Under Enterprise, the 'Servers' item is selected. The main content area displays a table of servers. The table has columns: Server Name, IP Address, TCP/IP Port, Node, and Comm.Method. The first row shows 'TSM1' with IP Address '10.10.10.13', TCP/IP Port '1500', and Comm.Method 'TCPIP'. Below the table, the 'Details' section for server TSM1 is shown, displaying various configuration parameters in a grid.

Server Name	IP Address	TCP/IP Port	Node	Comm.Method
TSM1	10.10.10.13	1500		TCPIP

Details			
Server Name:	TSM1	Allow Arch.Deletion?:	YES
Comm.Method:	TCPIP	Grace Deletion Period:	5
IP Address:	10.10.10.13	SSL:	×
TCP Port:	1500	Session Security:	Strict
Replacement:	×	Register by:	ATOM
Node:		Managing Profile:	
Last Access:	24-04-15 15:09:44	Server Password:	Yes
Locked:	NO	Set Password:	2019-08-03 20:12:29
Compression:	NO	Invalid Sign-on Count:	0
Description:			
URL Web Client:			
Received by Server:	181	Sent to Client:	217
Duration:	0.23 sec.	Idle Wait:	—
Communication Wait:	—	Volume mount Wait:	—
Virtual Vol.Password Set:	No	Validate Protocol:	No

Server Maintenance

Server Maintenance item allows to:

- Manage database SP, define volumes for database, define triggers
- Manage Recovery Log, define volumes for Recovery Log, define triggers
- View volume history
- Create and edit scripts
- Create and edit user accounts, define user rights
- View and register SP licenses
- View PVU
- View SP table structure

TSMExplorer

Servers Co-north Co-south

Events

Devices/Storages

- Device Classes
- Storage Pools
- Containers
- Cloud

Hardware

- Libraries
- Data Movers
- SAN

Enterprise

- Servers
- Server Groups
- Profile
- Subscribers
- Event Handling
- Export Operations

Maintenance

- Database/Logs
- Volume History
- Tape Health
- Scripts
- Administrators

Dashboard

Activity Log

Sessions/Processes

Command Line

ADSM help

Database/Logs Database/Logs Usage

Set DBRECOVERY Backup DB Extend DB Space DB backups Set Options

Database

Database Name: TSMDB1 Full Device Class: DBB Arch.Log Used Threshold: 80 %

Size of file system: 548.0 GB Last Complete Backup: 24-04-15 12:50 Streams: 1

Space used 437.1 GB (82.4 %) Buffer Poll Hit Ratio: 95.6 % Sort Overflows: 0

Free space available: 93.6 GB Reorg BeginTime: 14:00 Increment, since Last Full: 0

Compress DB backup: x Reorg Duration: 10 Allow Reorgtable: ✓

Protect keys: x Package Cache Hit Ratio: 99.4 % Last DB Reorganization: 24-04-14 18:37

Active Log

Active Log Directory: /netapp/activelog

Total FS Space: 198.0 GB

Free FS Space: 130.0 GB

Active Log Size: 64.0 GB

Mirror Log Directory: /netapp/mirrorlog

Archive Log

Space Used 21.4 GB (4.3 %) - 500.0 GB

Total Size of File System: 500.0 GB

Archive Log Compressed: x

Archive Log Directory: /netapp/archivelog

Fallover Log Directory:

Database Volumes

Location
/tsmdb/tsmdb001
/tsmdb/tsmdb002
/tsmdb/tsmdb003
/tsmdb/tsmdb004

TSMExplorer

Servers Co-north Co-south

Data Movers

SAN

Enterprise

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Maintenance

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- Tape Health
- Scripts
- Administrators
- Licenses
- PVU
- SP Tables

DRM

- Server Activity
- Daily Amount
- Remote Access

Dashboard

Activity Log

Sessions/Processes

Command Line

ADSM help

Volume History

Begin: 01/04/2024 End: 15/04/2024 OK

Any Type search

Date/Time	Type	Device Class	Volume Name
24-04-15 12:51:20	BACKUPFULL	DBB	L50166L5
24-04-14 15:27:05	STGNEW	LTOLIB	L50175L5
24-04-14 15:23:52	STGNEW	LTOLIB	L50161L5
24-04-11 04:34:53	STGNEW	LTOLIB	L50136L5
24-04-11 03:18:09	STGNEW	LTOLIB	L50215L5
24-04-09 16:30:44	STGDELETE	LTOLIB	L50161L5
24-04-09 13:30:44	STGDELETE	LTOLIB	L50215L5
24-04-08 12:42:01	STGNEW	LTOLIB	L50233L5
24-04-07 10:38:05	STGNEW	LTOLIB	AB0099L5
24-04-04 15:09:04	STGNEW	LTOLIB	BN0029L5
24-04-03 12:30:38	STGDELETE	LTOLIB	AB0092L5
24-04-03 05:26:38	STGNEW	LTOLIB	L50221L5
24-04-01 09:17:46	STGNEW	LTOLIB	L50219L5

Details

Date/Time: 24-04-15 12:51:20 Obj ID: 0

Type: BACKUPFULL DB Backup Home Position: 0

Device Class: DBB DB Backup Total Data Bytes[MB]: 0

Backup Series: 4230 DB Backup total Log Bytes[MB]: 0

Backup Operation: 0 DB Backup Stream Id: 1

Location: DB Backup Vol.Sequence for Stream: 100001

Command:

Volume Name: L50166L5

Servers

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Co-south

Data Movers

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Volume History

Begin: 01 / 04 / 2024 End: 15 / 04 / 2024 OK

Any Type search

Date/Time	Type	Device Class	Volume Name
24-04-15 12:51:20	BACKUPFULL	DBB	L50166L5
24-04-14 15:27:05	STGNEW	LTOLIB	L50175L5
24-04-14 15:23:52	STGNEW	LTOLIB	L50161L5
24-04-11 04:34:53	STGNEW	LTOLIB	L50136L5
24-04-11 03:18:09	STGNEW	LTOLIB	L50215L5
24-04-09 16:30:44	STGDELETE	LTOLIB	L50161L5
24-04-09 13:30:44	STGDELETE	LTOLIB	L50215L5
24-04-08 12:42:01	STGNEW	LTOLIB	L50233L5
24-04-07 10:38:05	STGNEW	LTOLIB	AB0099L5
24-04-04 15:09:04	STGNEW	LTOLIB	BN0029L5
24-04-03 12:30:38	STGDELETE	LTOLIB	AB0092L5
24-04-03 05:26:38	STGNEW	LTOLIB	L50221L5
24-04-01 09:17:46	STGNEW	LTOLIB	L50219L5

Details

Date/Time: 24-04-15 12:51:20

Obj ID: 0

Type: BACKUPFULL

DB Backup Home Position: 0

Device Class: DBB

DB Backup Total Data Bytes[MB]: 0

Backup Series: 4230

DB Backup total Log Bytes[MB]: 0

Backup Operation: 0

DB Backup Stream Id: 1

Location:

DB Backup Vol.Sequence for Stream: 100001

Command:

Volume Name: L50166L5

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Administrators

New 12

search

Administrator	Contact	Email	Authentication	Session Security	System Privileges	Locked	Password Expiration	Reg.Date	Last Access
ADMINISTRATOR			Local	Strict	YES	NO	NEVER	16-03-31 21:08	19-09-14 12:05
ATO			Local	Strict	YES	NO	NEVER	16-03-31 16:05	22-04-23 19:57
CNS		NGE_EXC	Local	Transitional	NO	NO	NEVER	16-07-20 19:24	24-04-10 04:34
CON		H	Local	Transitional	NO	NO	NEVER	16-04-04 12:32	24-04-12 21:43
DEN			Local	Strict	YES	NO	NEVER	18-04-16 11:56	22-06-20 15:18
OPE			Local	Transitional	NO	NO	NEVER	17-09-20 10:13	17-09-20 17:21
SER		NSOLE	Local	Strict	YES	NO		16-03-31 16:01	
TSM			Local	Transitional	NO	NO	NEVER	16-04-04 12:32	18-04-16 14:37
TSM			Local	Strict	YES	NO	NEVER	20-06-20 15:21	24-04-15 14:57
TSM			Local	Strict	YES	NO	NEVER	21-05-18 21:31	24-04-15 14:58
TSM			Local	Strict	YES	NO	NEVER	20-06-21 12:33	20-12-01 19:56

Details

Administrator: ADMIN

Invalid Sign-on Count: 0

Email:

Contact:

Session Security: Strict

System Privileges: ✓

Locked: NO

SSL Required: Default

Operator Privileges: ✗

Password Expiration: Never

Authentication: Local

Managing Profile:

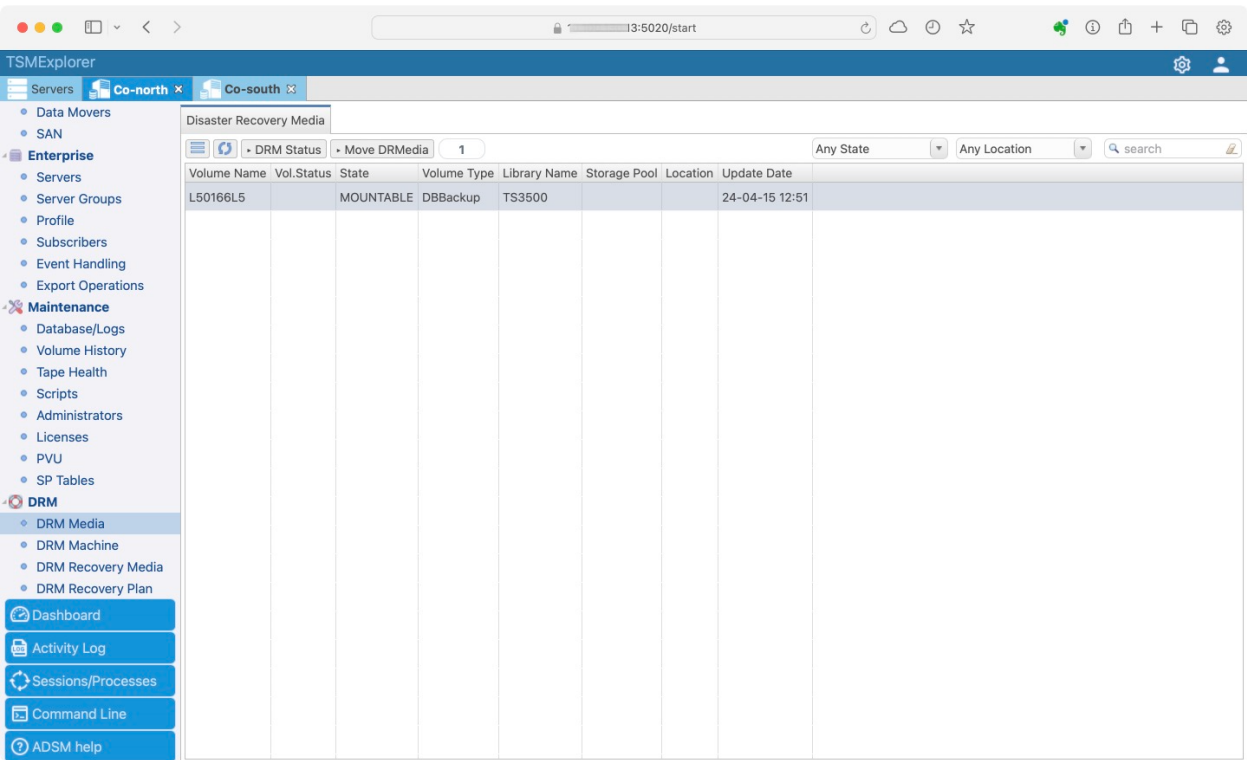
Domain Privileges: ** Included with system privilege **

Storage Privileges: ** Included with system privilege **

Client Access Privileges: ** Included with system privilege **

Client Owner Privileges: ** Included with system privilege **

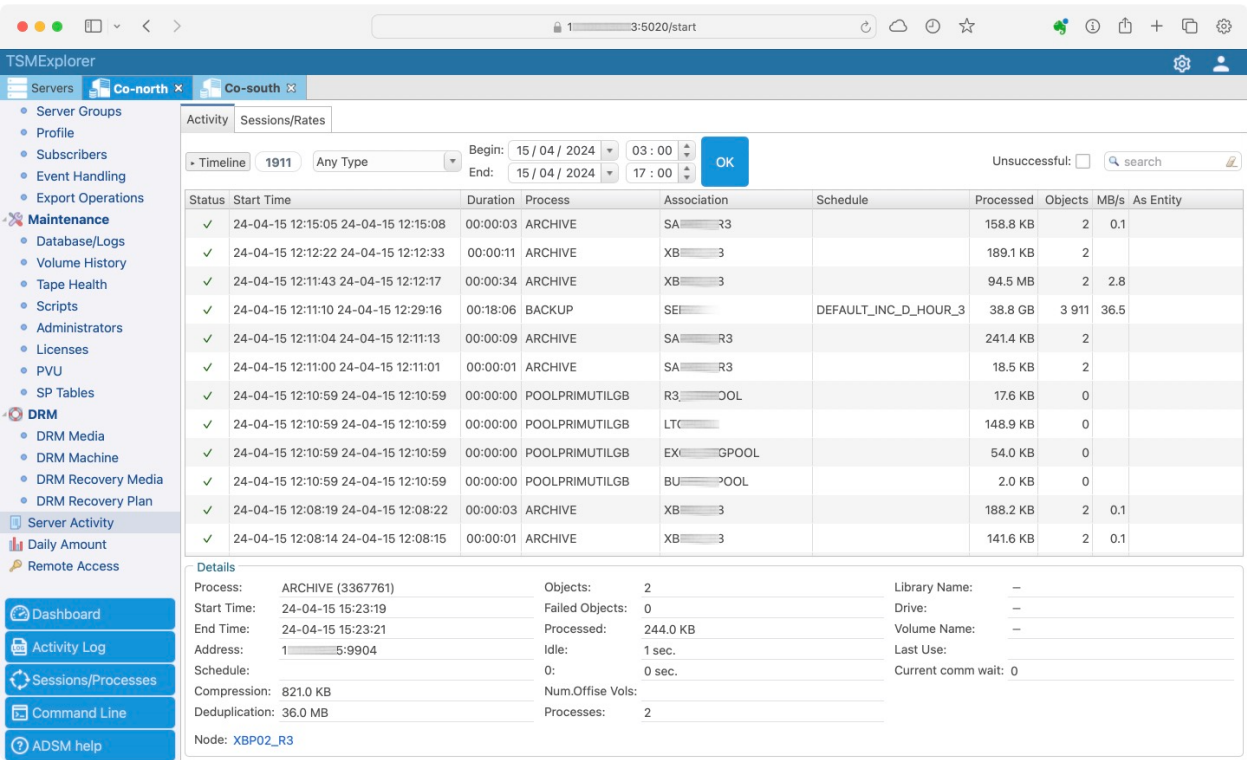
DRMedia



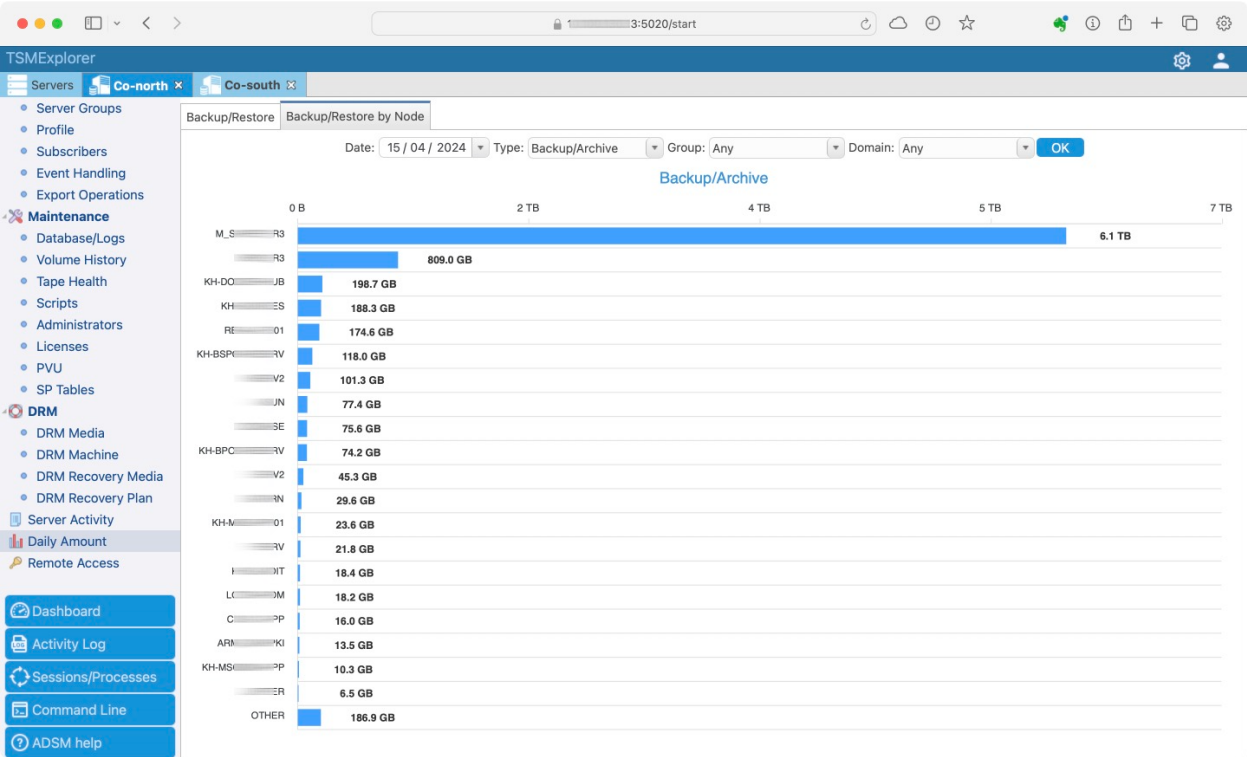
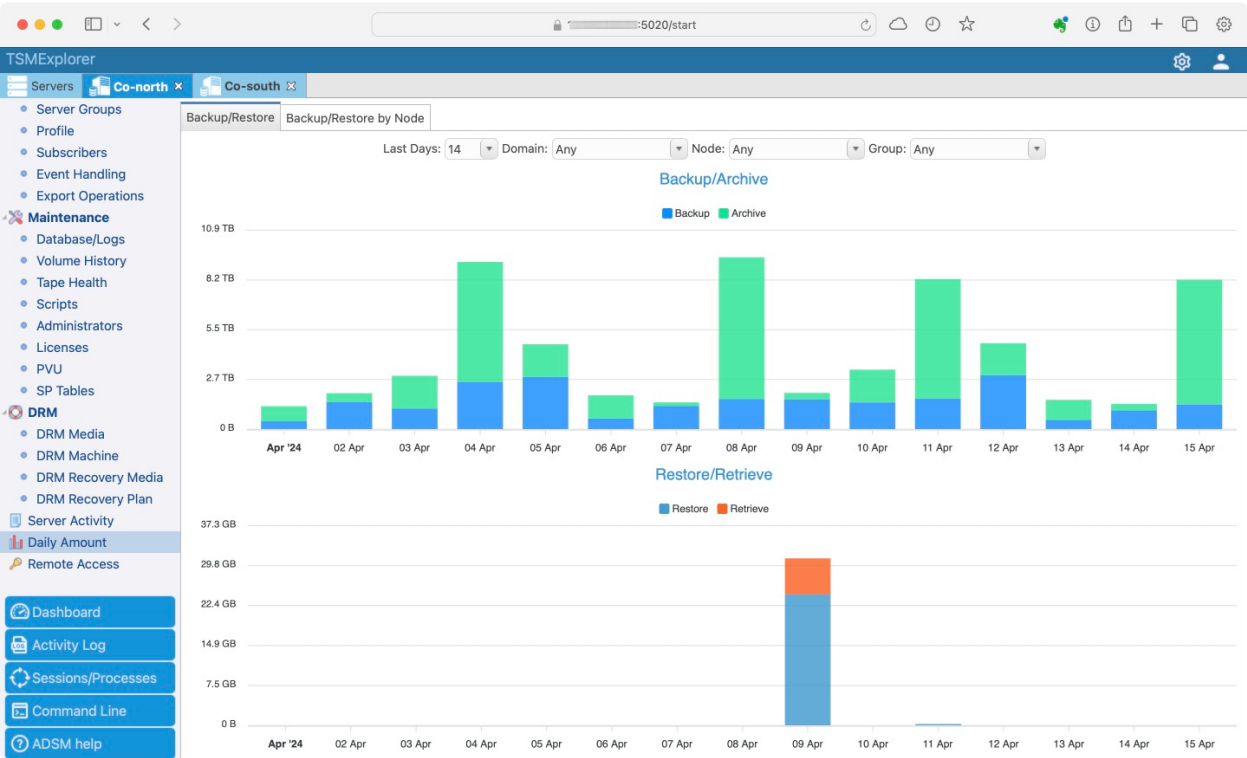
Server Activity

The item allows to perform the following operations:

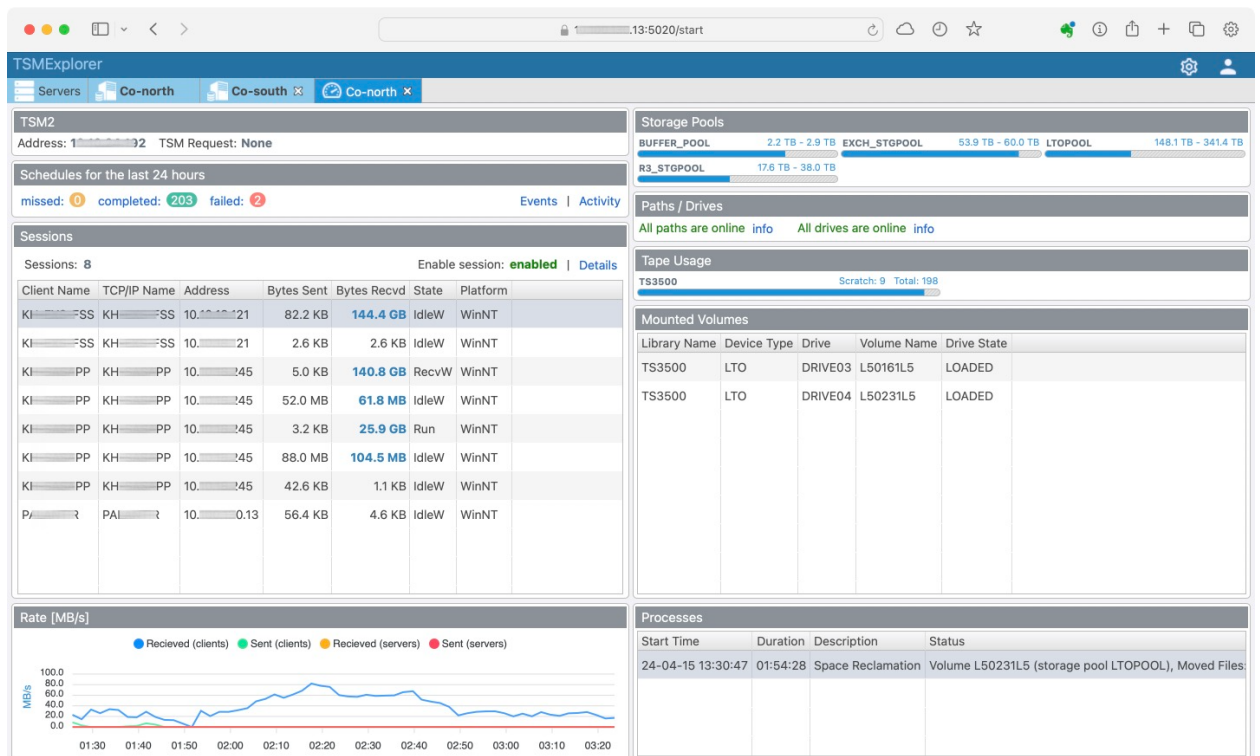
- View history of current activity
- View activity timeline of migration, backup, archive processes



Daily Amount

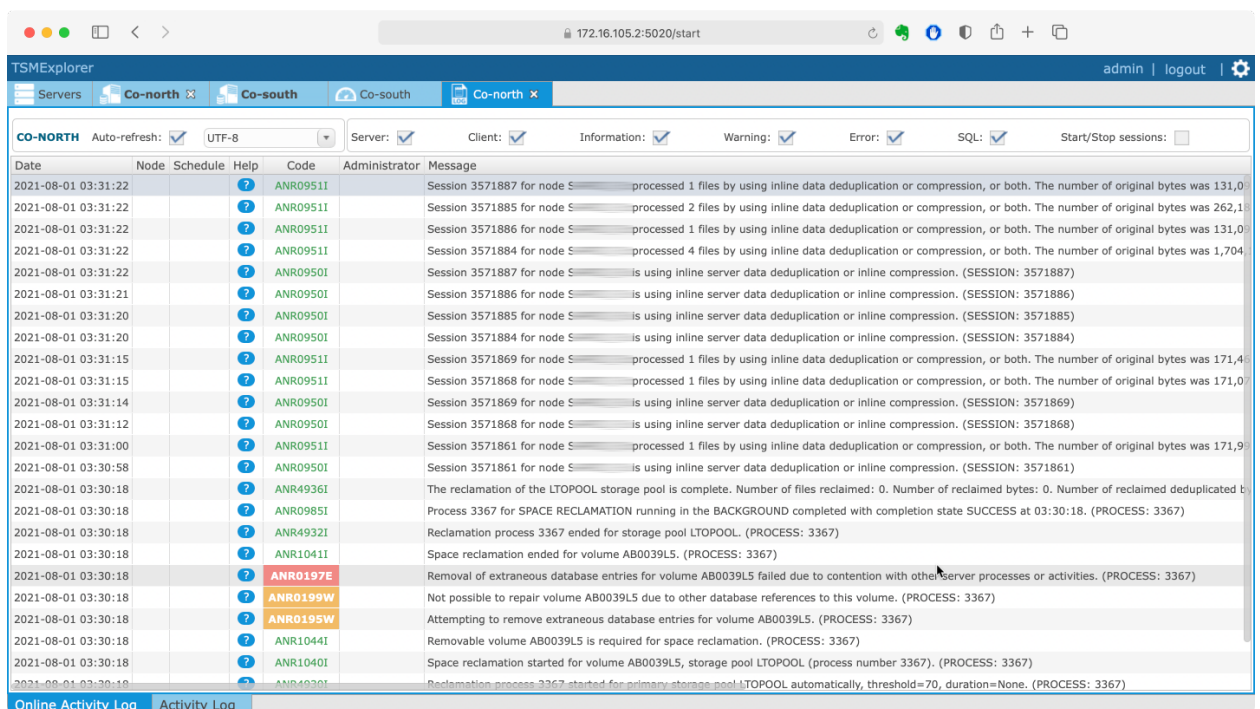


Dashboard

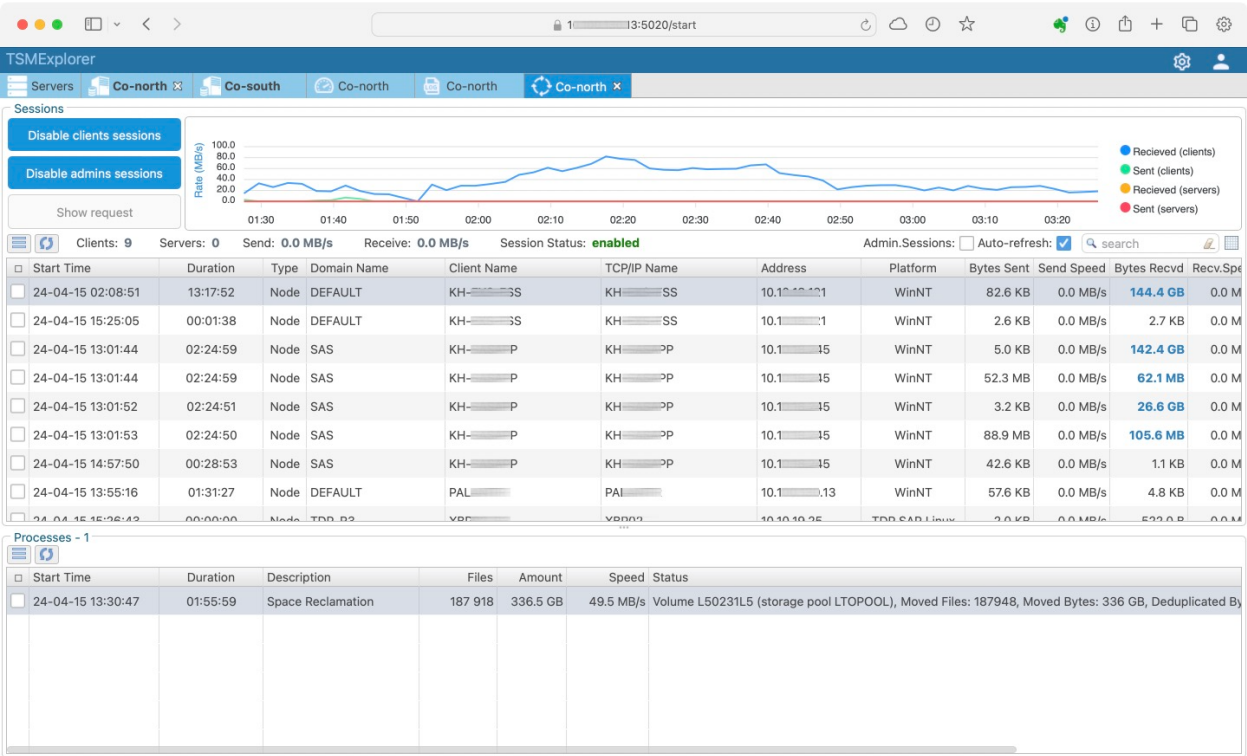


Activity Log

Open a tab or a separate window for convenient viewing of the Activity Log. You can indicate various parameters for the selection of logs, as well as select filters to choose the required log entries.

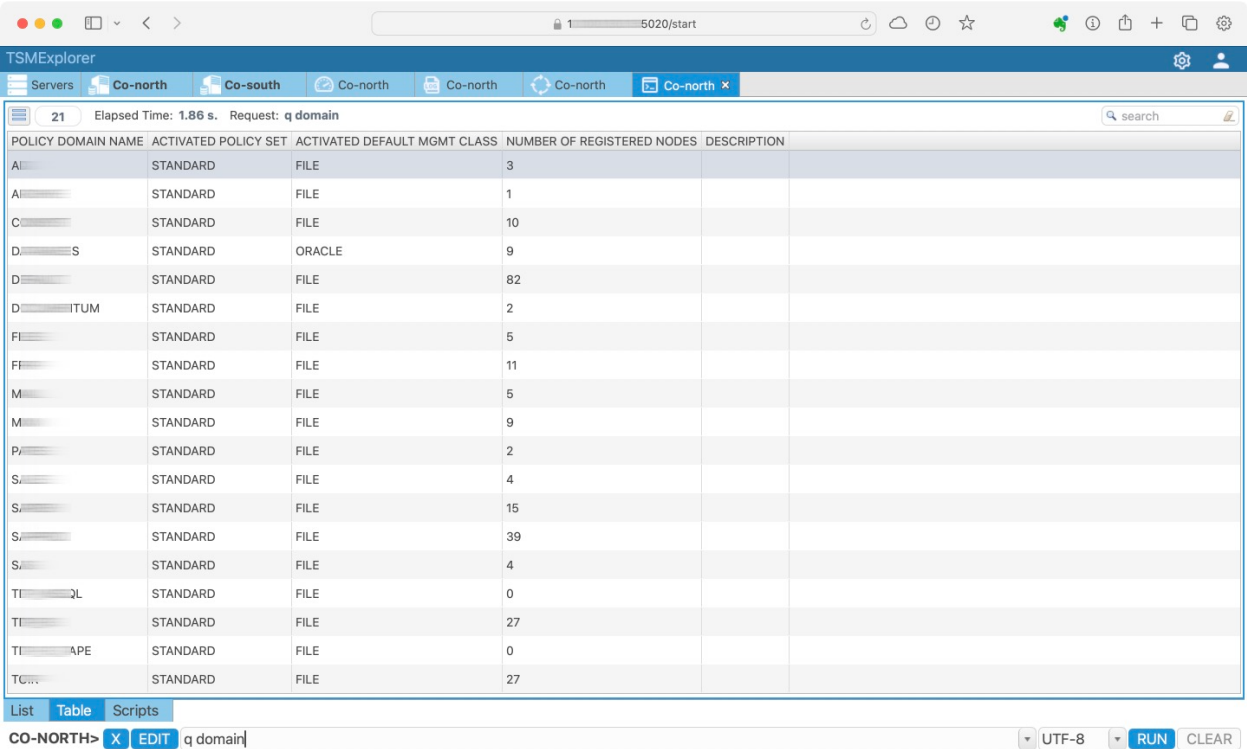


Sessions/Processes/Requests



Command Line

Command Line opens a separate window for enhanced graphic mode of SP dsmadmc console. The console allows you to display the results of commands in the List or Table mode. The user can run separate SP commands and predefined SP scripts.



Help ADSM

The screenshot shows the TSM Explorer application interface. On the left is a navigation pane with categories like Servers, Maintenance, and DRM. The main window displays the 'TSM Help' for the 'reg node' command. The help text includes a 'Privilege class' section stating that system, unrestricted policy, or restricted policy privilege is required. It also provides a detailed 'Syntax' section for the command.

Command or Code: reg node

Subcommands: (1)

			the target replication server.
--	--	--	--------------------------------

Privilege class

To issue this command, you must have system privilege, unrestricted policy privilege, or restricted policy privilege for the policy domain to which the client node is assigned.

Syntax

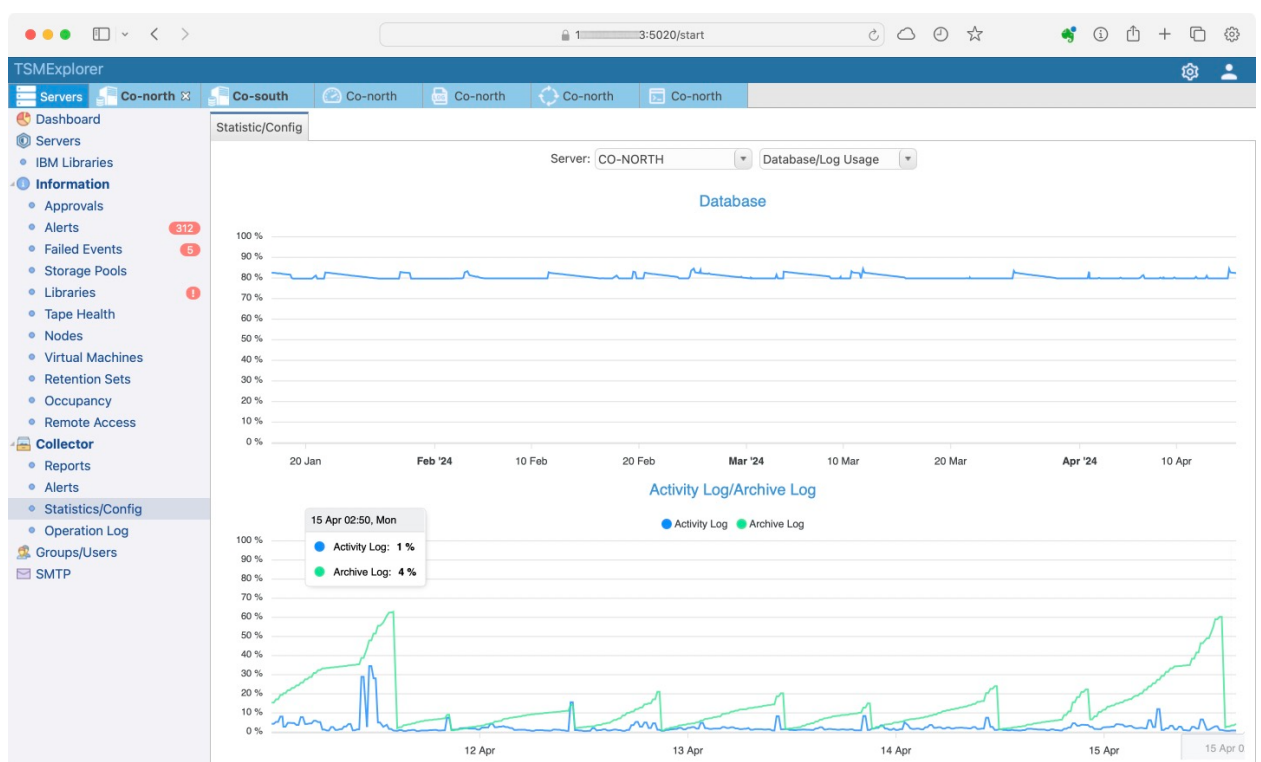
```
>>-REGISTER Node--node_name----->
                        '-password-'
>--+-----'.-Userid---NONE----->
| (1) |-----'.-Userid---NONE----->
|-----PASSExp---days-| '-user_id-'
                        '.-Domain---STANDARD----->
>--+-----'.-Contact---text-| '-Domain-----domain_name-->
                        '.-Compression---Client-----'.-ARCHDElete---Yes----->
>--+-----'.-Compression---Client-| '-ARCHDElete---Yes-+>
                        +-Yes-----+ '-No-->
                        '-No-----'
```

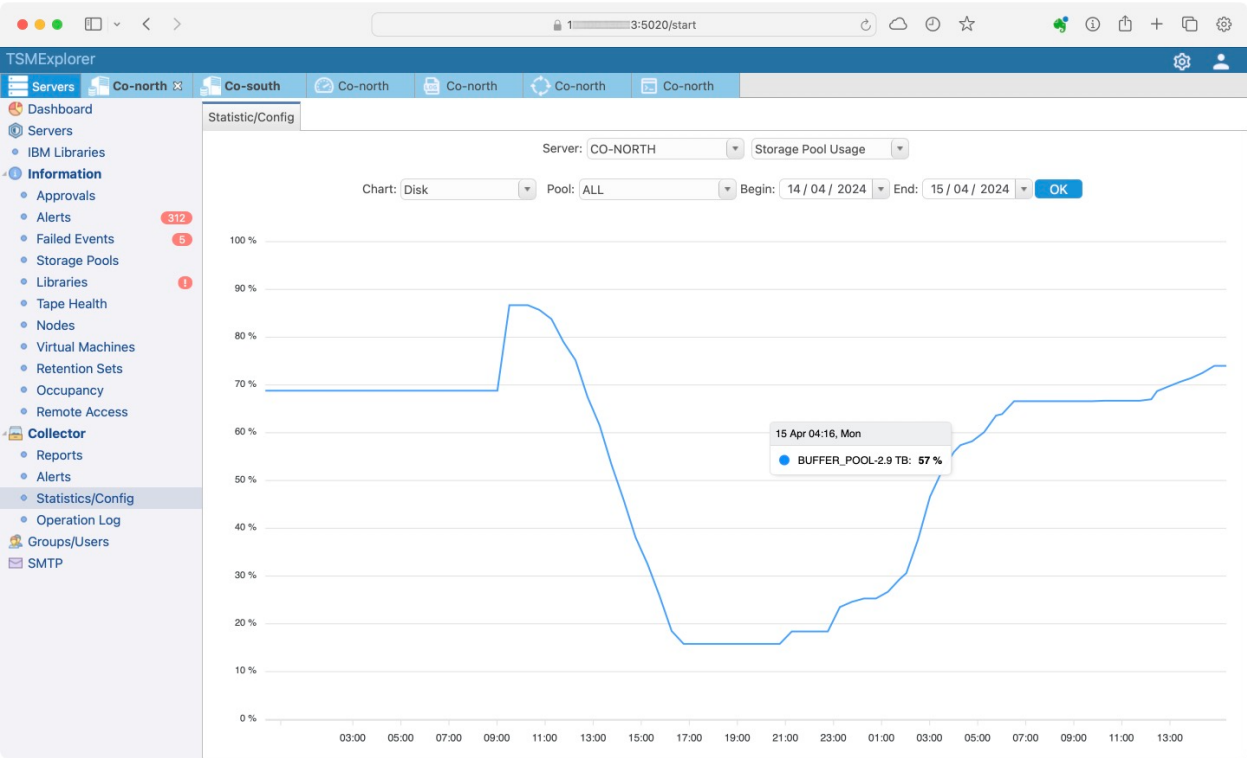
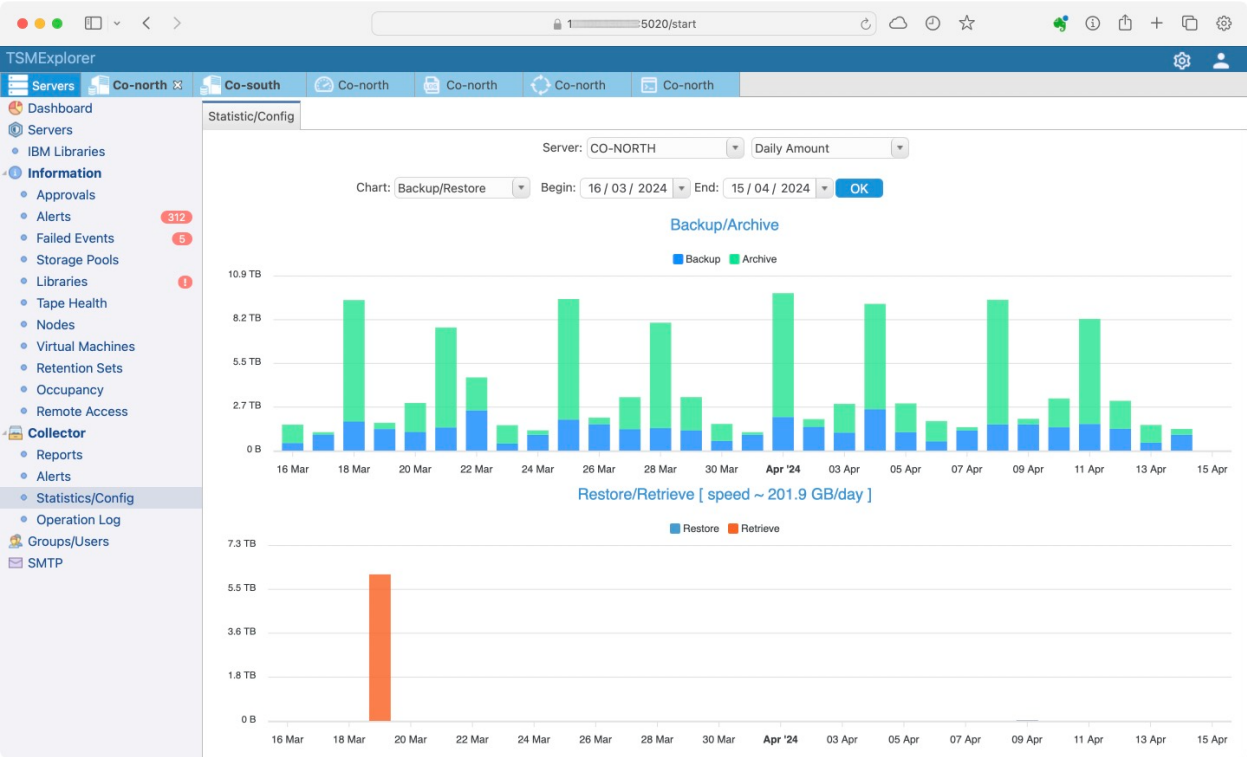
Statistical Reports

Collector performs statistics collection based on SP server with predefined intervals. Statistical data are displayed in charts for your convenience. Based on charts analysis you can understand the current state of the system and the dynamics of its development.

Statistical reports include:

- Database usage - stats are collected once a day
- Recovery Log Usage - stats are collected every 15 minutes
- Daily amount of operations backup, archive, restore, retrieve, migration - stats are collected once a day
- Disk and File pool usage - stats are collected every 15 minutes
- Sequential pool usage - stats are collected once a day
- Tape usage - stats are collected once a day
- Session - stats are collected every 15 minutes







TSMExplorer

Servers Co-north Co-south Co-north Co-north Co-north Co-north

Dashboard Servers IBM Libraries Information Approvals Alerts 312 Failed Events 5 Storage Pools Libraries 1 Tape Health Nodes Virtual Machines Retention Sets Occupancy Remote Access Collector Reports Alerts Statistics/Config Operation Log Groups/Users SMTP

Statistic/Config

Server: CO-NORTH Configuration

Type: Configuration Show Download Copy

```

Client Action duration: 1 Day(s)
Schedule Randomization Percentage: 25
Query Schedule Period: Client
Maximum Command Retries: Client
Retry Period: Client
Client-side Deduplication Verification Level: 0 %
Scheduling Modes: Any
Active Receivers: CONSOLE ACTLOG
Configuration manager?: Off
Refresh interval: 60
Last refresh date/time:
Context Messaging: Off
Table of Contents (TOC) Load Retention: 120 Minute(s)
Machine Globally Unique ID: ca.41.cc.2c.f1.ae.11.e5.bc.e8.56.83.be.d2.80.02
Archive Retention Protection: Off
Database Directories: /tsmdb/tsmdb001,/tsmdb/tsmdb002,/tsmdb/tsmdb003,/tsmdb/tsmdb004
Total Space of File System (MB): 561,152.00
Used Space on File System (MB): 470,385.32
Free Space Available (MB): 90,766.68
Encryption Strength: AES
Client CPU Information Refresh Interval: 180
Outbound Replication: Enabled
Target Replication Server: TSM1
Default Replication Rule for Archive: ALL_DATA
Default Replication Rule for Backup: ALL_DATA
Default Replication Rule for Space Management: ALL_DATA
Replication Record Retention Period: 30 Day(s)
LDAP User:
LDAP Password Set: No
Default Authentication: Local
Failover High Level Address:
Scratchpad retention: 365 Day(s)
Replication Recovery of Damaged Files: On
SUR Occupancy (TB): 219.79
SUR Occupancy Date/Time: 2024-04-10 12:39:03
Front-End Capacity (MB): 140,953,578.02
  
```

Mail Server Registration

To send reports and alerts, users must first determine the SMTP mail servers. To improve reliability, you can define two SMTP servers. If one of them is unavailable, collector will attempt to send information via the second SMTP server.

Registration of any new SMTP Server includes the following parameters:

- SMTP server
- SMTP port
- From name
- From email
- Username and Password for SMTP with authentication
- Use SSL connection
- TLS enabled

The screenshot shows the TSM Explorer web interface. The sidebar on the left contains navigation links: Dashboard, Servers, IBM Libraries, Information (with sub-links: Approvals, Alerts, Failed Events, Storage Pools, Libraries, Tape Health, Nodes, Virtual Machines, Retention Sets, Occupancy, Remote Access), Collector (with sub-links: Reports, Alerts, Statistics/Config, Operation Log), Groups/Users, and SMTP. The main content area is titled 'SMTP Servers' and shows two server configurations. The 'Primary SMTP server' is active and has the following settings: Address (empty), Port: 25, SSL: x, TLS: checkmark, Name from: TSM Explorer, Email from: tsm@rosenergoatom.ru, and Active: checkmark. It has buttons for 'Send test mail', 'Properties', and 'Delete'. The 'Secondary SMTP server' is inactive and has the following settings: Address (empty), Port: 25, SSL: x, TLS: checkmark, Name from: (empty), Email from: (empty), and Active: x. It also has buttons for 'Send test mail', 'Properties', and 'Delete'. To the right of each server configuration is a 'Transport Log' section.

User and Users Group Registration

In order to send reports and alerts it's necessary to create user and include him into the user's group.

Registration of any user includes the following parameters:

- Name
- Email
- Description
- Type user (System Administrator, SP Administrator, Client)
- Type authentication (local, login for LDAP: login@domain)
- Password

Local super administrators

- local authorization/ LDAP authorization
- add/modify users, groups, servers, remote access list, reports, alerts, smtp, connect to SP servers with registered credentials or "connect as" after authentication.

SP administrators/operators

- SP authorization only, administrator gets list of servers with current personal credential
- SP operations with personal SP credentials or "connect as" after authentication with new credential
- View statistic for successful access SP servers
- To access via SP authorization, there is no need to create a user account inside the application..
- [Using this role if you have many servers with other admins and operators with difference credentials and roles inside SP environment.](#)

Users

- local, LDAP user/LDAP group authorization or without authorization (for getting reports via email)
- Getting reports via email
- Access to mini-portal for controlling and checking status of backups for selected nodes groups

The screenshot shows the TSM Explorer application interface. The sidebar on the left contains navigation options: Servers, Information, Collector, and Groups/Users. The main area displays the 'Users' management screen. At the top, there are tabs for 'Groups' and 'Users', and buttons for 'New', 'Check SP Credential', and 'Get LDAP members'. A search bar is also present. Below these, a table lists users with the following columns: Active, Name, Email, Login, Role, Authentication, LDAP group, Remote Access, Last Update, and Description. The table contains 10 rows of user data. Below the table, there is a 'Details' section for a selected user, showing fields for Active status, Name, Email, Login, LDAP Group, Authentication, Role, Last Update, and Description.

Active	Name	Email	Login	Role	Authentication	LDAP group	Remote Access	Last Update	Description
✓	Client	None		✓	22-01-05 01:50	
✓	Client	LDAP User		✓	18-06-06 10:51	
✓	System Administrator	LDAP User		✗	23-02-10 00:02	
✓	Client	None		✓	21-01-21 10:39	
✓	Client	None		✓	21-12-15 20:07	
✓	Client	None		✓	22-04-06 13:59	
✓	Client	None		✗	23-02-16 15:26	
✓	Client	None		✓	18-06-20 15:33	
✓	Client	None		✗	23-02-16 15:24	
✓	Client	None		✗	23-02-16 15:25	
✓	Client	None		✓	20-10-22 13:55	

Details Node's Groups to View

Active: ✓

Name: Al...

Email: vy...

Login: ...

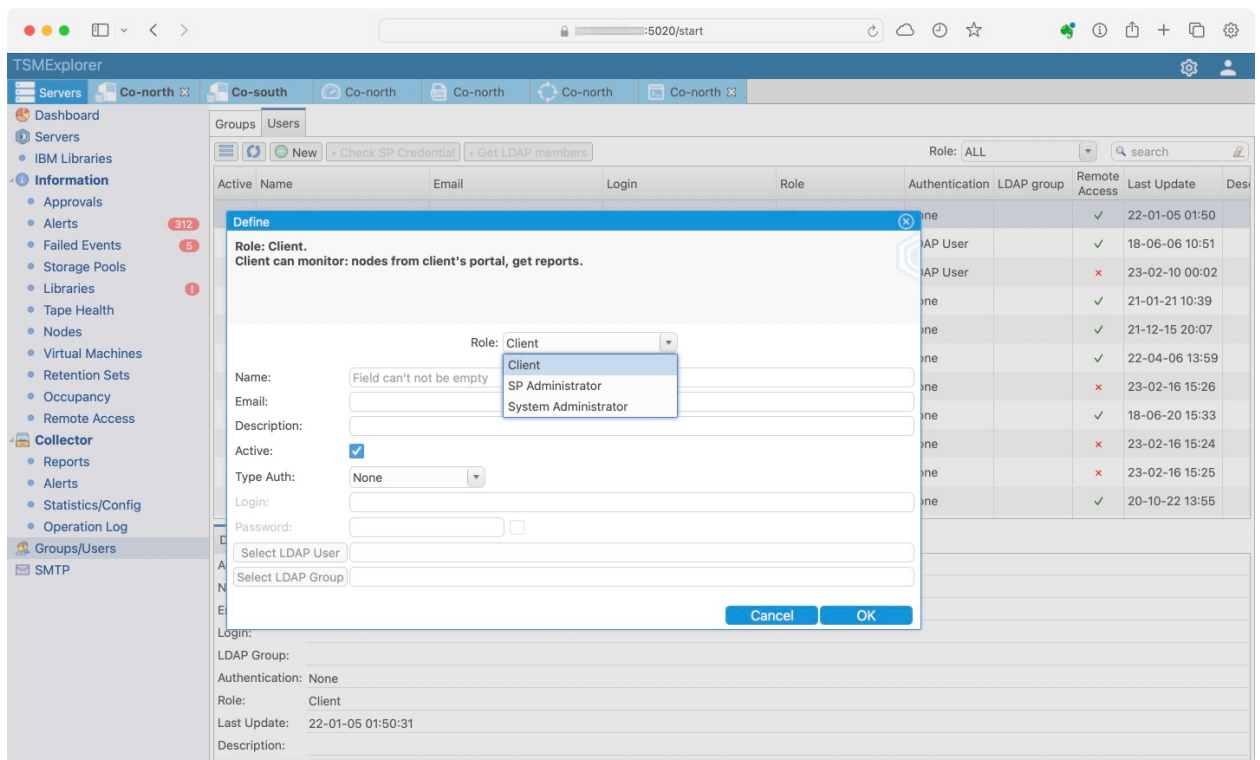
LDAP Group: ...

Authentication: None

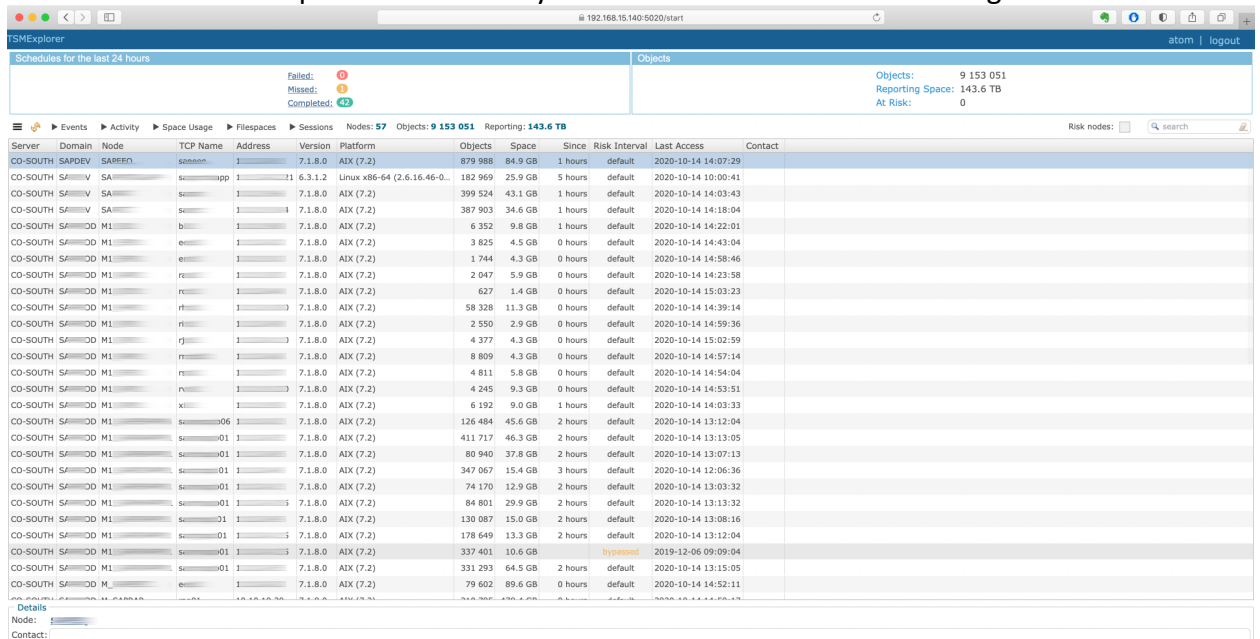
Role: Client

Last Update: 22-01-05 01:50:31

Description: ...



User can access to simple interface with yourself list of nodes for monitoring.



Reports

Collector has the function of creating reports on SP server work. The report is sent as schedule to addresses of the current group users. In case if you haven't selected the user's group, the report will still be saved in the database and can be viewed in the history tab. The report can be viewed both in TSM Explorer and browser.

The screenshot displays the TSM Explorer application window. The top navigation bar includes tabs for Servers, Co-north, Co-south, Co-north, Co-north, and Co-north. The left sidebar contains a menu with options like Dashboard, Servers, IBM Libraries, Information, Approvals, Alerts, Failed Events, Storage Pools, Libraries, Tape Health, Nodes, Virtual Machines, Retention Sets, Occupancy, Remote Access, Collector, Reports, Alerts, Statistics/Config, Operation Log, Groups/Users, and SMTP.

The main area shows a table of backup jobs under the 'Reporting profiles' tab. The table has columns for Active status, Name, Users Group, Encoding, Format, Attach., Start Time, Day of month, Day of week, Last Hours, and Last Update. One job, 'rea_reports', is highlighted in red.

Active	Name	Users Group	Encoding	Format	Attach.	Start Time	Day of month	Day of week	Last Hours	Last Update
✓	rea_reports	rea	UTF-8	HTML	x	10:00	Any	Mo Tu We Th Fr Sa Su	24	23-06-07 14:46
x	vm	ac	Cp1251	HTML	x	10:00	Any	Any	24	23-06-07 14:46
✓	report	for-report	UTF-8	HTML	x	11:00	Any	Mo Tu We Th Fr Sa Su	24	23-06-07 14:46
✓	KH-PP	si-group	UTF-8	HTML	x	09:00	Any	Mo Tu We Th Fr Sa Su	24	23-06-07 14:46
✓	har	sa	UTF-8	HTML	x	10:00	Any	Mo Tu We Th Fr Sa Su	24	23-06-07 14:46
✓	kln	se	UTF-8	HTML	x	11:00	Any	Mo Tu We Th Fr Sa Su	24	23-06-07 14:46
✓	cor-c	co	UTF-8	HTML	x	10:00	Any	Mo Tu We Th Fr Sa Su	24	23-06-07 14:46
✓	na	N	UTF-8	HTML	x	10:00	Any	Mo Tu We Th Fr Sa Su	24	23-11-07 15:15

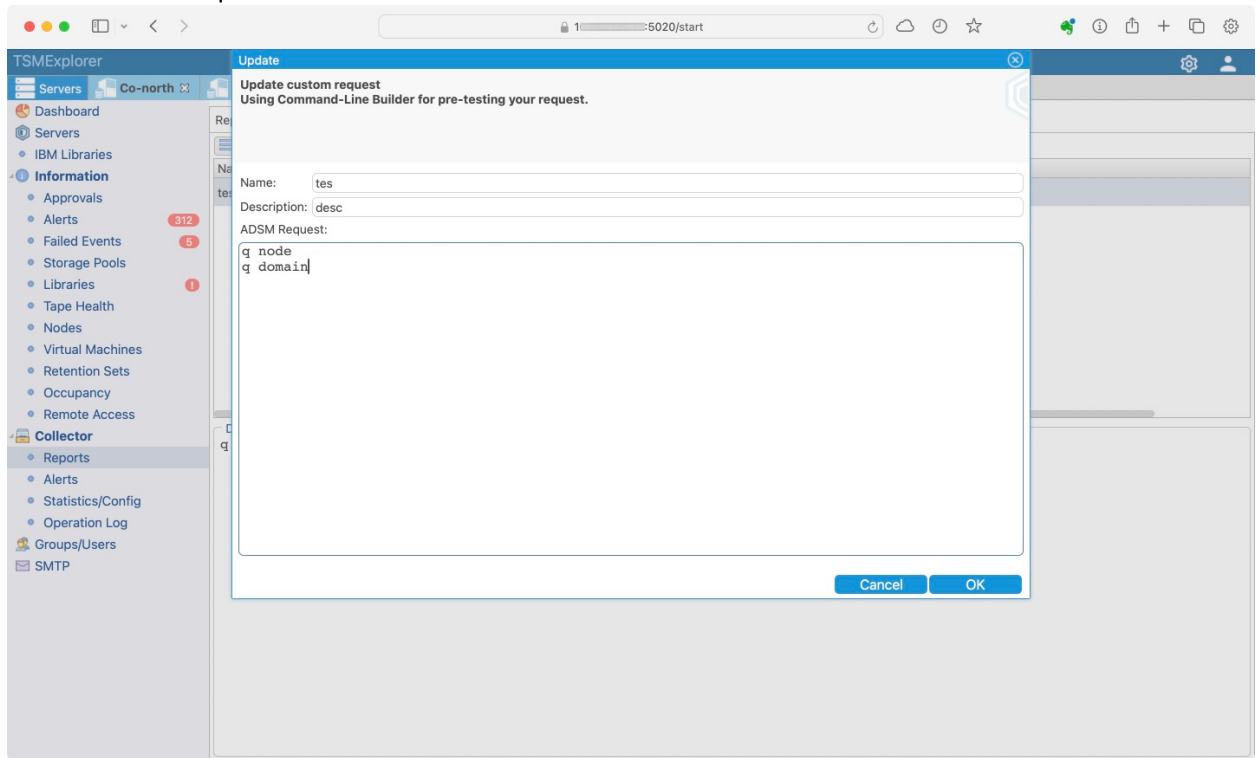
Below the table, the 'Details' tab is selected for the 'rea_reports' job. It shows fields for Name, Users Group, Format, As Attachment, Start Time, Start Date, Day of Week, Last Hours, Exclude lock nodes, Save copy to disk, Path to Disk, Description, and Exclude ANR.

Define custom request

You can define a customized request for the report.

Registration of custom report includes the following parameters:

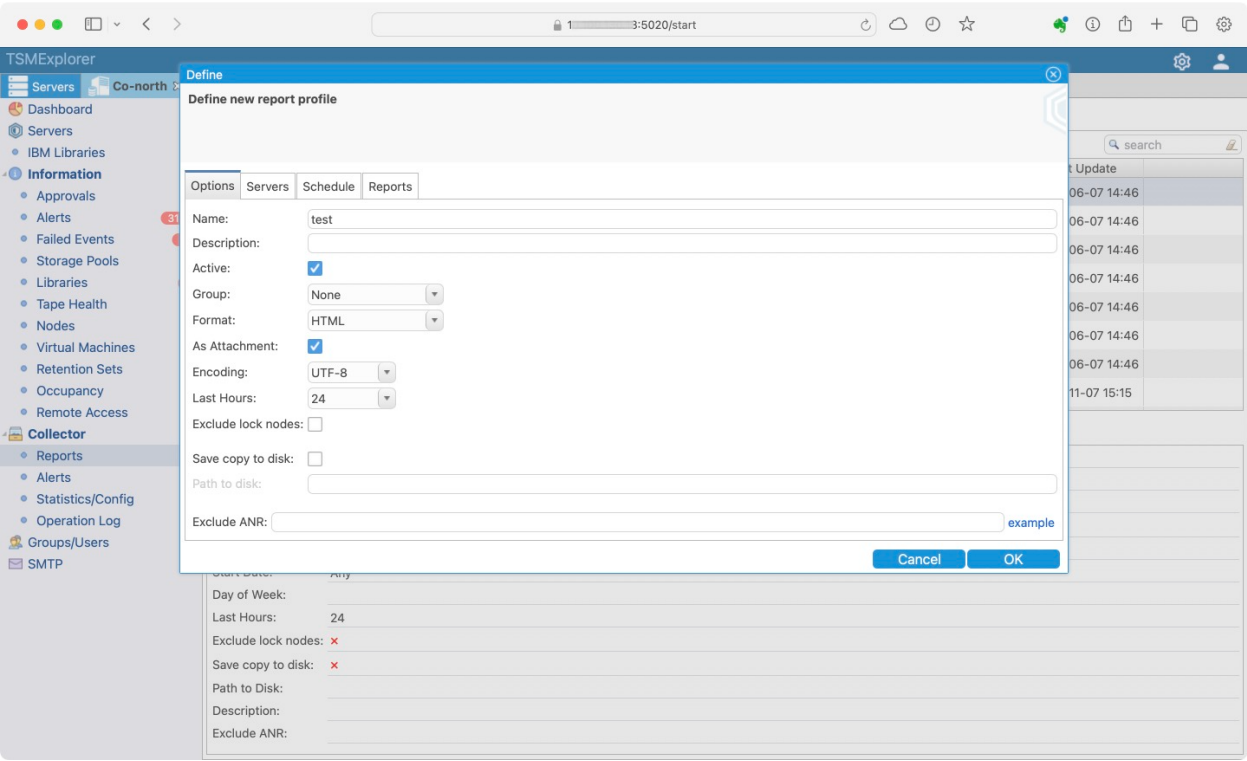
- Name of request
- Description of request
- ADSM request



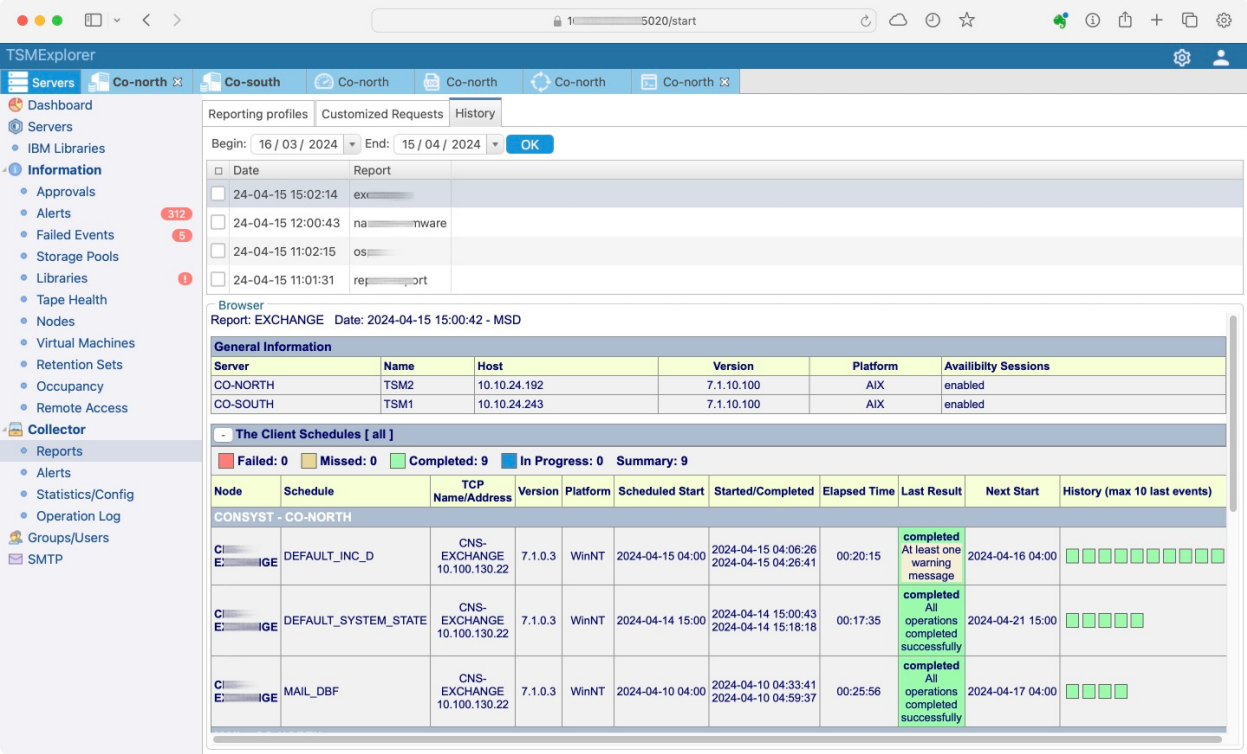
Define new report

Define of new report includes the following parameters:

- Name of report
- Active report
- Description
- Users group
- SP server
- Covered hours
- Start time
- Start date
- Day of week
- Domains
- Default request
- Customized request



Report's Logs



Alerts

Collector has the function of immediate alerts to users in case if any SP server parameter has exceeded the limit and established an invalid status or requires other administrator's actions.

The standard alerts include:

- DB usage
- Log recovery usage
- Volume read/write errors
- SP server availability
- Number session higher than
- Number scratch tapes lower than
- Drives not online
- Paths not online

Registration of alert includes the following parameters:

- Name of alert
- Format alerts
- Active on/off
- SP server
- Users group
- Description
- Alerts
- Code server messages

Define new alert profile

General

Name:

Description:

Active: ☒

Users group:

Server:

Format:

Alerts

DB usage higher than %: <input type="text" value="90"/>	<input checked="" type="checkbox"/>	Server is available: <input checked="" type="checkbox"/>	Approve commands: <input checked="" type="checkbox"/>
Log usage higher than %: <input type="text" value="90"/>	<input checked="" type="checkbox"/>	Catch Request: <input checked="" type="checkbox"/>	
Volume read/write errors more: <input type="text" value="10"/>	<input checked="" type="checkbox"/>	Drives not online: <input checked="" type="checkbox"/>	
Num.session higher than: <input type="text" value="50"/>	<input checked="" type="checkbox"/>	Paths not online: <input checked="" type="checkbox"/>	
Num.scratch tapes lower than: <input type="text" value="3"/>	<input checked="" type="checkbox"/>	Missed/Failed Events: <input checked="" type="checkbox"/>	

Listener of codes

DB usage higher than: 90 %	✓	Server is available: ✓	Approve commands: ✓
Log usage higher than: 90 %	✓	Drives not online: ✓	
Volume read/write errors more: 10	✓	Paths not online: ✓	
Num.session higher than: 50	✗	Catch Request: ✓	
Num.scratch tapes lower than: 1	✗	Missed/Failed Events: ✓	

TSMExplorer server Rest-API

TSMExplorer has REST-API for connection to Spectrum Protect Servers.

Set variable for activation REST-API in app.cfg for activation function

```
restapi = true          // enable/disable REST-API for Spectrum Protect Servers
restport = 16020        // REST-API communication port for Spectrum Protect Servers
```

ADSM result (query or select)

Request

POST http://address:port/request

JSON body

```
{
  "server": "south",
  "admin": "admin",
  "password": "password",
  "request": "select domain_name from domains"
}
```

Response

```
{
  "request": "select domain_name from domains",
  "message": "",
  "code": "0",
  "server": "south",
  "result": [
    {
      "DOMAIN_NAME": "AAA1"
    },
    {
      "DOMAIN_NAME": "AD"
    },
    {
      "DOMAIN_NAME": "AIX_SB"
    }
  ]
}
```

ADSM command (define/update/delete and etc.)**Request**

POST http://address:port/command

JSON body

```
{  
  "server": "south",  
  "admin": "admin",  
  "password": "adminpassword",  
  "command": "define domain aaa1"  
}
```

Response

```
{  
  "command": "define domain aaa1",  
  "message": "ANR1500I Policy domain AAA1 defined",  
  "code": "ANR1500I",  
  "server": "south"  
}
```

email: info@tsmexplorer.com

web: <https://www.tsmexplorer.com/>