

JDisc Discovery 5.0

Device History Add-On

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1 Introduction

Tracking configuration changes is essential for delivering efficient support and help desk services to your customers or for finding the root cause of unexpected server problems in your data center. JDisc Discovery's Device History Add-On adds tracking of device configuration changes to JDisc Discovery and allows viewing of device configuration data at any given time.

2 Device History

The device history section explains how to create snapshots, view previous configurations, compare device data from two snapshots and manage snapshots.

2.1 Concepts

A snapshot includes device configuration and dependencies on other devices at a given time. Snapshots can be created manually from any device report or scheduled automatically.

Manually created snapshots include all selected devices. Scheduled snapshots include all devices belonging to the configured group and - depending on the settings in the discovery configuration dialog - also devices from all subgroups.

The device details dialog allows viewing of device data stored in snapshots and comparing the data of two snapshots.

2.2 Creating Snapshots Manually

To manually create a snapshot from within any device report, select one or multiple devices by using the context menu *History* » *Create Snapshot.*

Iter:						
Case sensitive filter						
Name	IP Address		Manufacturer		Model	_
6.43.145.42	96.43.145.42					
23-0-174-50.deploy.static.akamaitechnologies.com	23.0.174.50					
23-54-107-27.deploy.static.akamaitechnologies.com	23.54.107.27					
bnfwb15-nat0.europe.hp.net	15.195.179.254					
ladeEnclosure-1	12.216.106.213		IBM	В	ladeCenter E	
ladeEnclosure-2	12.119.74.240		IBM	В	ladeCenter E	E
ladeEnclosure-3	12.216.107.252		IBM	В	ladeCenter E	
ladeServer-1	12.216.105.92		IBM	B	ladeCenter HS20	
ladeServer-10		100	Properties	В	ladeCenter HS20	
ladeServer-11	12.216.106.37	-	ropentes	В	ladeCenter HS20	
ladeServer-12			Discover	۱ B	ladeCenter HS20	
ladeServer-13	12.216.105.103		Manage	N B	ladeCenter HS20	
ladeServer-14			viariage			
ladeServer-15			History	۱ 间	Create Snapshot	
ladeServer-16			-	1.4	Managar	
ladeServer-17			Lompare	1	Manage snapshots	
ladeServer-2	12.216.106.198		Custom Attributes) B	ladeCenter HS20	
ladeServer-3	12.216.106.32			в	ladeCenter HS20	
ladeServer-4	12.216.104.22		Connect with	<u>ا</u>	ladeCenter HS20	
ladeServer-5	12.216.104.88		Troubleshoot	B	ladeCenter HS20	
ladeServer-6	12.216.105.135		readication	B	ladeCenter HS20	
ladeServer-7	12.216.106.70	X	Delete Devices	B	ladeCenter HS20	
ladeServer-8			Country Documentaria (194	В	ladeCenter HS20	
ladeServer-9	12.216.104.146	•••	create Dependency Map	B	ladeCenter HS20	
isco-sw1	192.168.178.4	-	Create Topology Map	C	2900XI	•
<		a	C 1 C 1710	-		+
Total 335 devices 15 devices selected 🔍 Create Support ZIP						

Fig: Context menu for creating a new snapshot

Add a comment to identify the snapshot.

Snapshot name	Snapshot before consolidation
insporte ritaine	

Fig: Entering a snapshot comment

JDisc Discovery creates a snapshot of the selected devices and stores the snapshot in the database.

2.3 Scheduling Snapshots

Scheduled snapshots allow tracking of configuration changes within your network. To

create a scheduled snapshot

- Open the discovery configuration dialog from the *Discovery* » Configuration menu
- Select the *Device History* tab within the *Scope* tab.
- Select a device group in the navigation panel and enable or disable the 'Include devices within subgroups' check-box to include or exclude devices in subgroups.

Discovery Configuration	
General Scope Directory Data Collection	on Discovery Jobs Protocols Topology Jobs Filters SSH Keys
Gompany ⊕} EMEA	Properties Device History IPv4 Networks IPv6 Networks Network Neighborhood Directory SNMP Accounts V Keep device history for 90 - day(s) 90 - day(s) <t< th=""></t<>
	Schedule type Daily Run every day at 12:00 PM
	Blackout Period Add Change Remove
	Ok Cancel

Fig: Configuring scheduled device history snapshots

The value in the 'Keep device history for $\langle n \rangle$ day(s)' field determines the maximum life cycle of device history snapshots. Device snapshots that have exceeded the configured life cycle will be deleted from the database if the check-box for this option is enabled.

Enable the 'Include devices within subgroups' option to include all devices in the snapshot that belong to subgroups of the selected group.

It is best practice to schedule snapshots at times when JDisc Discovery is idle (no discoveries, no scheduled backups).



Configure scheduled snapshots per device group as needed to cover different IP networks and ranges, Windows domains or

2.4 Viewing Snapshot Data

Click on the device history icon from the *Device Details* dialog to display device history snapshots. Select a device history snapshot to view the device data at the time when the snapshot was created.

Device Details for 'teetee-pc.fritz.box' Image:					
History Snapshots	Connections Virtu General Netwo	al Computers orking H	Custom Attributes lardware Firmwar	Roles Groups	Analyze User
Creation Date Nam Now Curre Oct 8, 2014 4:30:56 PM test Apr 19, 2012 7:14:09 PM Befor	Name Manufacturer Model Type Serial Number HW Version Part Number Computer Name Directory Name Creation Date Last Discovered Uptime Discovery Duration Database Duration	teetee-pc.friiz.1 Hewlett-Packard m8180.de Desktop CZH7321818 GN598AA-ABD TEETEE-PC WORKGROUP 2012-01-24 07: 2014-03-04 17: 01:29:27 00:04:55 00:00:02	рох ј 49:13.0 30:18.0		
Close					



2.5 View Differences Between Snapshots

Select two snapshots to switch the device details dialog into the difference mode. The difference mode highlights the changes between the primary snapshot (that you selected first) and the secondary snapshot (which you selected to compare against the primary snapshot). The dialog caption always displays the current selection.

2.5.1 Select Snapshots To Compare

Select two snapshots to create a comparison report. Select the device history icon and select the two snapshots that you would like to compare. JDisc Discovery's user interface immediately changes into the comparison mode and highlights differences

with red and green color.

2.5.2 Comparing Scalar Reports

The figure below shows a comparison of a snapshot from the 17th or March with current data. Strikeout red colored text has been removed from the first snapshot and green colored text has been added in the second snapshot.



Fig: Difference report for the operating system tab

Select the *Diff all fields* check box within in the History Snapshots panel to compare all available fields including fields that periodically changes such as the system up-time or free disk space fields.

Deselect the *Diff all fields* check box to compare only fields that typically indicate a change in two snapshots.

2.5.3 Comparing Tables

When comparing table based reports, JDisc Discovery adds two columns at the beginning of the table to display the comparison status. JDisc Discovery displays

- identical rows using two check-marks
- missing rows in any of the two snapshot by omitting the check-mark in the respective columns.

• a red cross for rows that contain differences and highlights the cells that contain the differences using red background color.

Device Details for 'teetee-pc.fritz.box' - Comparing 'Apr 1'	9, 2012 7:14:09 PM' with 'Current Data'
History Snapshots	User Connections Virtual Computers Custom Attributes Roles Groups Analyze General Networking Hardware Firmware Software
Creation Date Nam Now Curre Oct 8, 2014 4:30:56 PM test Arr 19, 2012 7:14:09 PM Defen	Operating System Applications Application Instances Patches Services Drivers Executables Processes Cluster Services Filter:
	Case sensitive filter Application INET Framework Solution Application Applicat
m Total 3 device snapshots 2 device snapshots selec	Address Book 7 Address Book 7 Address Book 7 Address Book 7 Total 394 applications 0 applications selected
	Close

Fig: Difference of a table based report

2.6 Managing Device Snapshots

This section explains how to manage device snapshots.

2.6.1 Device Snapshots

A snapshot contains data for one or multiple devices. You can view existing snapshots from the *Devices* » *History Snapshots* menu.

History Spanshots		
	3191±	
	2 🕘 🗰	
Filter:		
Case sensitive filter		
Creation Date	Name	Device Count
Jan 15, 2012 2:52:16 PM	Before Migration	252
Apr 19, 2012 7:13:24 PM	Before Reinstall	279
Oct 8, 2014 4:30:37 PM	test	335
Total 3 history snapshots 0 history snaps	shots selected	
	Close	

Fig: Device history snapshots

Open the context menu to delete selected snapshots or to view the devices included in selected snapshots.

Itter: Case sensitive filter Creation Date Name Den 15, 2012 2:52:16 PM Defore Migration 252 Device Sincluded within this Snapshot Dot 8, 2014 4:30:37 PM Devices included within this Snapshot Det Eter Higtory Snapshot 335			
Creation Date Name Device Count Dan 15, 2012 2:52:16 PM Defore Migration 252 Dan 15, 2012 2:52:16 PM Devices included within this Snapshot 279 Dot 8, 2014 4:30:37 PM Devices included within this Snapshot 335 Image: Device State of the sta		1 📄 💟 🗊 📥	
Case sensitive inter Creation Date Name Device Count Jan 15, 2012 2:52:16 PM Before Migration 252 Agr 19, 2012 7:13:24 PM Devices included within this Snapshot 279 Dct 8, 2014 4:30:37 PM Devices included within this Snapshot 335 Image: Device State of Count State of Cou	-iter:		
Creation Date Name Device Count Jan 15, 2012 2:52:16 PM Before Migration 252 Software Science Jal 279 Devices included within this Snapshot 335 Software Science Jal 279 Det 8, 2014 4:30:37 PM Devices included within this Snapshot Software Science Jal 279 Det 8, 2014 4:30:37 PM Delete Higtory Snapshot	Case sensitive filter		
Iban 15, 2012 2:52:16 PM Before Migration 252 Second Constant 279 Devices included within this Snapshot 335	Creation Date	Name	Device Count
Total 3 history snapshots 1 history snapshot selected	Jan 15, 2012 2:52:16 PM	Before Migration	252
Oct 8, 2014 4:30:37 PM Devices included within this Snapshot 335 Image: Star Star Star Star Star Star Star Star	Apr 19, 2012 7:13:24 PM	Refore Deinstall	279
Total 3 history snapshots 1 history snapshot selected	Oct 8, 2014 4:30:37 PM	Devices included within this Snapshot	335
Total 3 history snapshots 1 history snapshot selected		🗙 Delete History Snapshot	
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Total 3 history snapshots 1 history snapshot selected Close			
Total 3 history snapshots 1 history snapshot selected Close			
Total 3 history snapshots 1 history snapshot selected Close			
Close			
close	Total 3 history snapshots 1 his	story snapshot selected	
	Total 3 history snapshots 1 his	story snapshot selected	

Fig: Deleting device history snapshots

When deleting a device history snapshot the data of all devices contained in the snapshot will also be deleted.

2.6.2 Individual Device Snapshots

In addition to deleting a device history snapshot including all contained information, you can also delete individual devices from a device history snapshot. To delete a device from a device history snapshot, select the device from any device report and open the context menu Manage » History » Manage Snapshots.

All Devices → ← → 参 🔒 🕞 💽 📄 😳						
Eilfor						
Case sensitive filter						
Name	IP Address	Mar	ufacturer	Model		
62.154.232.113	62.154.232.113					
62, 159, 74, 17	62, 159, 74, 17					
63.140.40.57	63.140.40.57					
65.55.223.16	65.55.223.16					
85.181.74.209	85.181.74.209					
96.43.144.40	96.43.144.40					
96.43.145.42	96.43.145.42					
a23-0-174-50.deploy.static.akamaitechn	23.0.174.50					
a23-54-107-27.deploy.static.akamaitech	23.54.107.27					
bbnfwb15-nat0.europe.hp.net	15.195.179.254					
BladeEnclosure-1	12.216.106.213	TRM		ladeCent	ter E	
BladeEnclosure-2	12.119.74.240		Properties		er E	
BladeEnclosure-3	12.216.107.252				er E	
BladeServer-1	12.216.105.92		Discover		er HS20	
BladeServer-10			Manage	•	er HS20	
BladeServer-11	12.216.106.37					
BladeServer-12			History		Create Snapshot	
BladeServer-13	12.216.105.103		Compare		Anage Spapshots	
BladeServer-14			compare	1		
BladeServer-15			Custom Attributes	•	er HS21	
BladeServer-16			Connectwith		er HS21	
BladeServer-17			Connect with		er HS12	
BladeServer-2	12.216.106.198		Troubleshoot	+	er HS20	
BladeServer-3	12.216.106.32				er HS20	
01-d-0	10 010 104 00	×	Delete Devices			
			Create Dependency N	/an		
Total 335 devices 1 device selected			· · · · ·			
		- inite - init	Create Topology Map	o		

Fig: Managing a device's history

Select the snapshots you wish to delete from the *Device History* report and choose *Delete History Snapshot* from the context menu.

History Snapshots for Device 'BladeE	nclosure-1'	
	1015	
Filter:		
Case sensitive filter		
Creation Date	Name	
Jan 15, 2012 2:52:23 PM	Before Migration	
Apr 19, 2012 7:13:35 PM Oct 8, 2014 4:30:44 PM	X Delete History, Snapshot	
	13	-
Tatal 2 bistory apprehets 1.1 bistory app	and a stand	
Total 5 history shapshots 1 history sha		
	Close	

Fig: Deleting a snapshot of an individual device

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- This product includes icons from 'FAMFAMFAM' icon gallery 'SILK' (<u>http://www.famfamfam.com/lab/icons/silk</u>).
- This product includes Kai Toedter's 'Jcalendar' (<u>http://www.toedter.com/en/jcalendar/index.html</u>).
- This product includes the JUNG layout library (<u>http://jung.sourceforge.net</u>).
- This product includes the COLT numeric library (http://acs.lbl.gov/~hoschek/colt).
- This product uses the Postgres database (<u>http://www.postgresql.org</u>).
- This product uses SNMP4J (<u>http://www.snmp4j.org</u>).
- This product uses the Ganymed SSH library (http://www.ganymed.ethz.ch/ssh2).
- This product uses the drools rule engine (<u>http://jboss.org/drools</u>).
- This product uses the janino compiler (<u>http://www.janino.net</u>).
- This product uses Jyhton (<u>http://www.jython.org/Project</u>).
- The product calls the dmidecode binary (<u>http://www.nongnu.org/dmidecode</u>).
 Find the source code in the 'sources' directory.
- This product uses icons from 'Crystal Clear' (<u>http://commons.wikimedia.org/wiki/Crystal_Clear</u>).
- This product uses the 'PUTTY' ssh client.
- This product uses the dom4j library (<u>http://dom4j.sourceforge.net/dom4j-1.6.1</u>).
- This product uses the Jaxen library (<u>http://jaxen.org/</u>)

- This product uses the Jcalendar library (<u>http://toedter.com/jcalendar/</u>).
- This product uses the Jdom library (<u>http://www.jdom.org/</u>).
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