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DSReport

NDS/eDirectory Report Generator

DSReport is a free Win32 tool that allows you to get detailed reports on single or multiple eDirectory objects

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DSReport: NDS Report Generator

DSReport will allow you to run reports on any attribute of single or multiple object in an NDS/eDirectory tree. The resulting data can be exported into text, CSV, Excel, HTML, or XML files.

1. Usage

Use this section to get a quick introduction into the most typical tasks that you can accomplish with DSReport.

1.1. Get Info

The Tab "Info" displays a short readme text to help you get started.
The 'About' menu item displays version information.

1.2. Get Updates

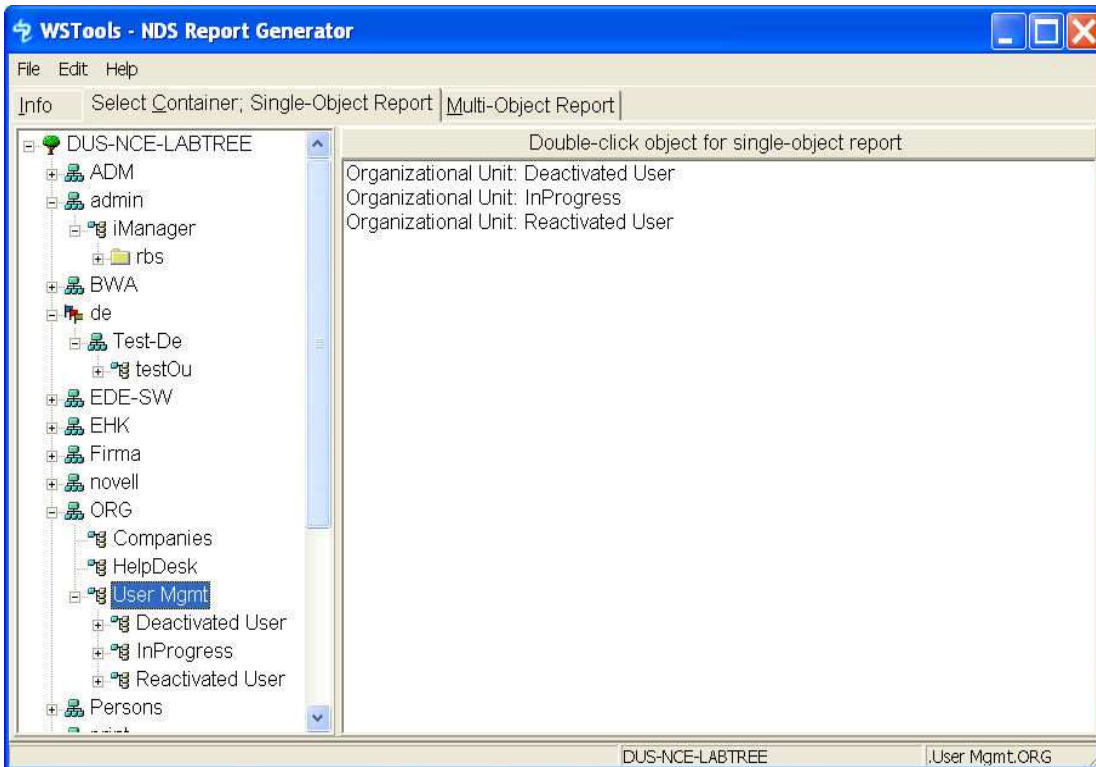
The Tab "Info" has a link to my web site where the most recent version is found. You may also use the Help menu to let DSReport check for available updates. This feature may not work correctly if you reside behind a firewall.

1.3. Select the tree and container

Tab "Select Container / Single-Object Report": Select the tree and container that you want to get information about (left panel)

1.4. Get details on one object

Tab "Select Container / Single-Object Report": To scan all attributes of one object, double-click the object in the object list (right panel)

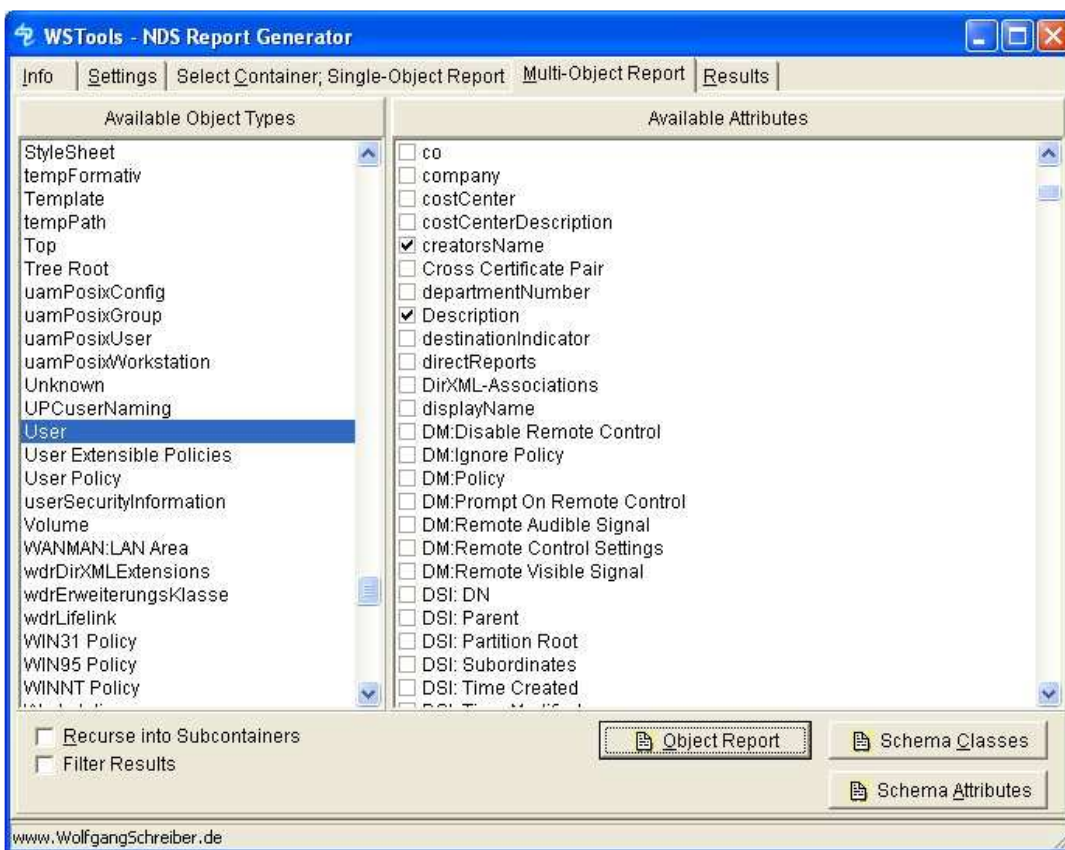


Results will be shown in the Tab "Results"

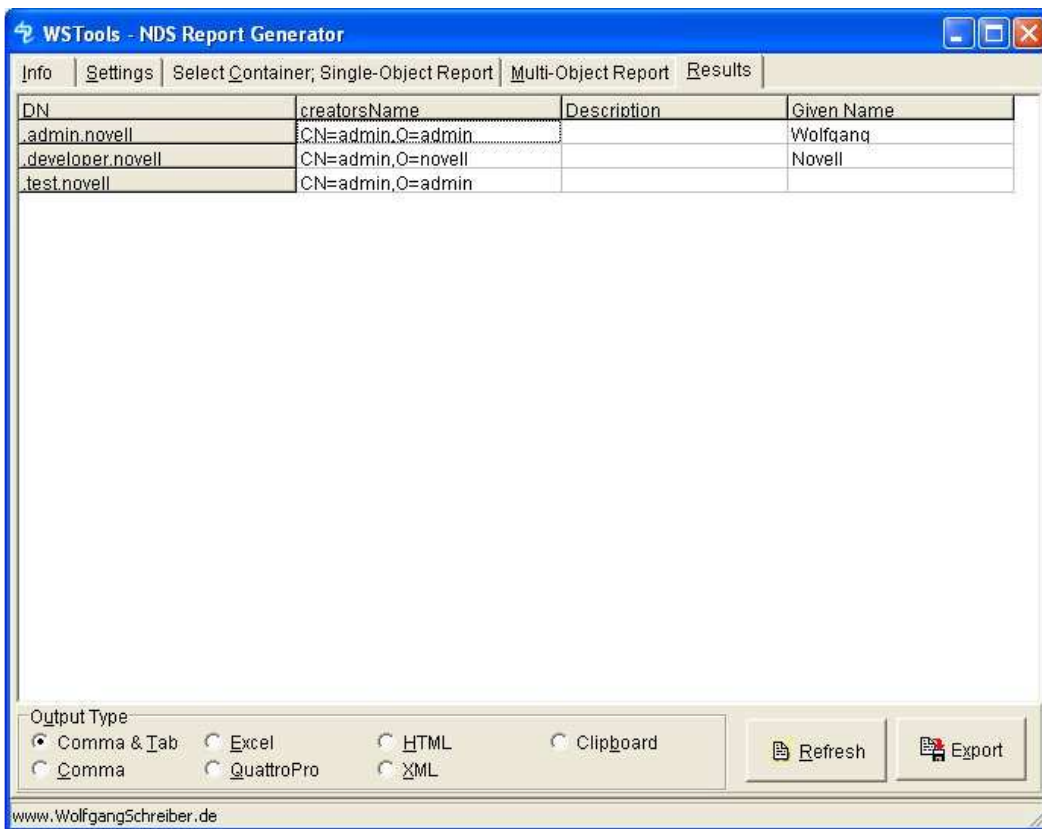
WSTools - NDS Report Generator	
Info Settings Select Container, Single-Object Report Multi-Object Report Results	
Attribute Name	Value
ACL	
AppAssociations	
AppFolders	
AuditFile Link	
Authority Revocation	
auxClassCompatibility	
Back Link	
Bindery Property	
businessCategory	
CA Private Key	
CA Public Key	
Certificate Revocation	
Certificate Validity Interval	
CN	apchadmn-Administrators
creatorsName	CN=admin,O=novell
Cross Certificate Pair	
Description	
DirXML-Associations	
DM:Policy	
DSI: DN	.apchadmn-Administrators.novell
DSI: Parent	.novell
DSI: Partition Root	[Root]
DSI: Subordinates	0
DSI: Time Created	04.05.2006 14:32:43
DSI: Time Modified	07.06.2006 11:00:19
E-Mail Address	
Equivalent To Me	admin.novell
Full Name	
GUID	
Group Membership	
GUID	80273A156ADBDA11BEF200B0D0F97A32
L	
Last Referenced Time	
Login Script	
Mailbox ID	
Output Type	
<input checked="" type="radio"/> Comma & Tab	<input type="radio"/> Excel
<input type="radio"/> Comma	<input type="radio"/> QuattroPro
	<input type="radio"/> HTML
	<input type="radio"/> XML
	<input type="radio"/> Clipboard
Refresh Export	
.apchadmn-Administrators.novell	

1.5. Get details on multiple objects of the same type

Tab "Multi-Object Report": To scan all objects of a selected type, select the object type, and requested properties, then press "Run".

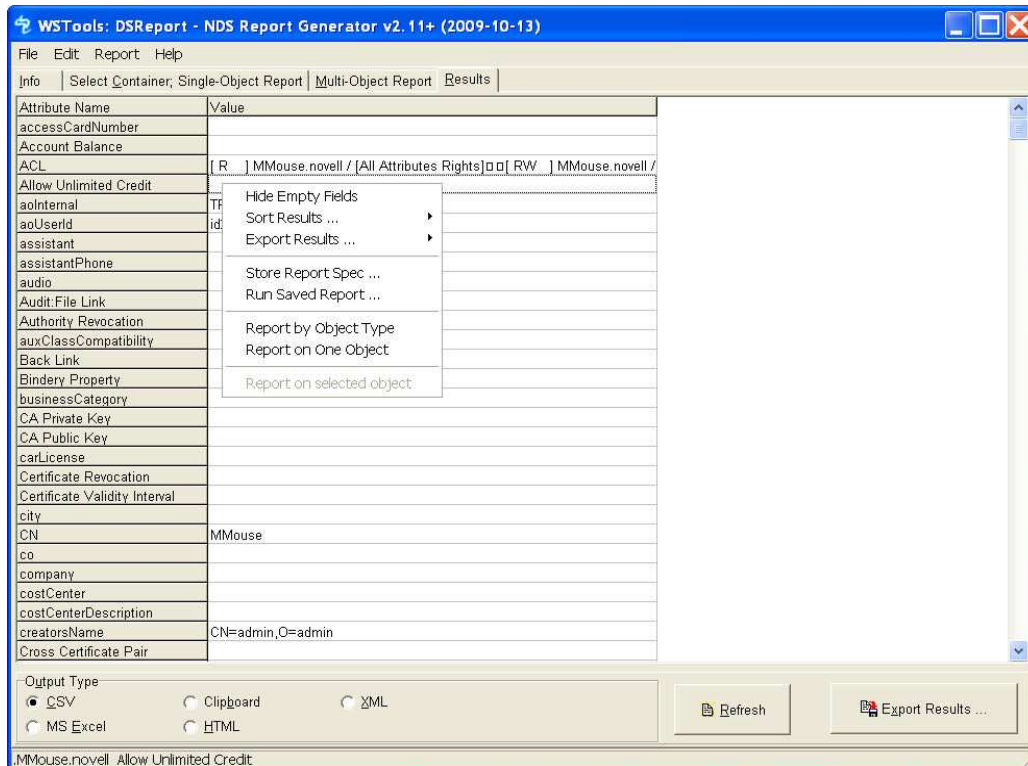


DSReport remembers and saves your preferences into DSReport.INI
Results will be shown in the Tab "Results"



1.6. Working with Results

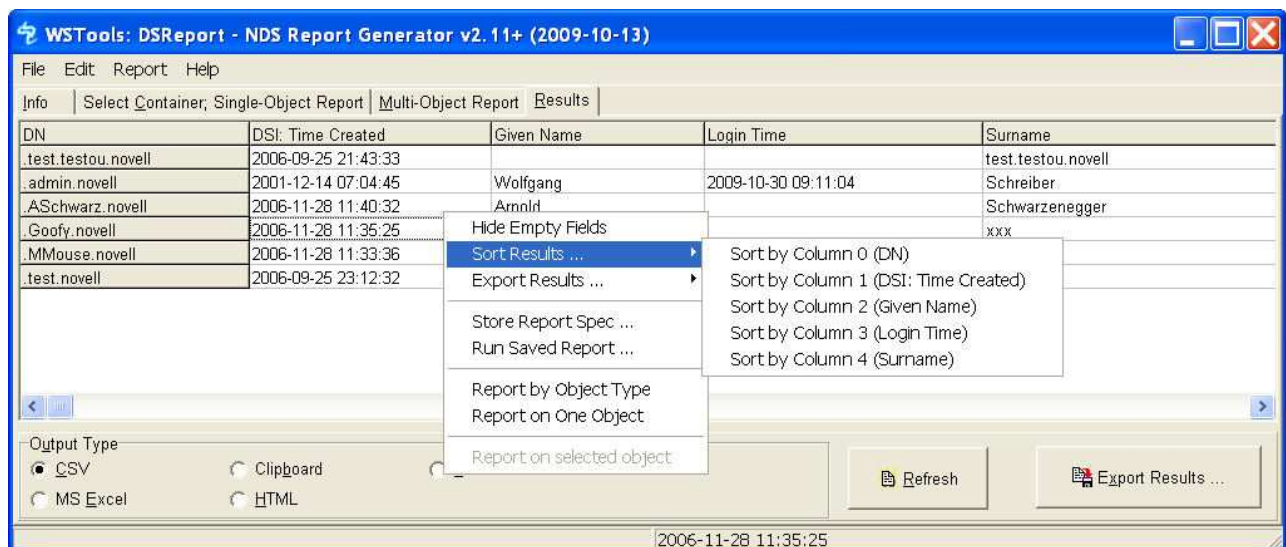
When right-clicking into the results display, you'll get a context menu with additional options to process the returned information

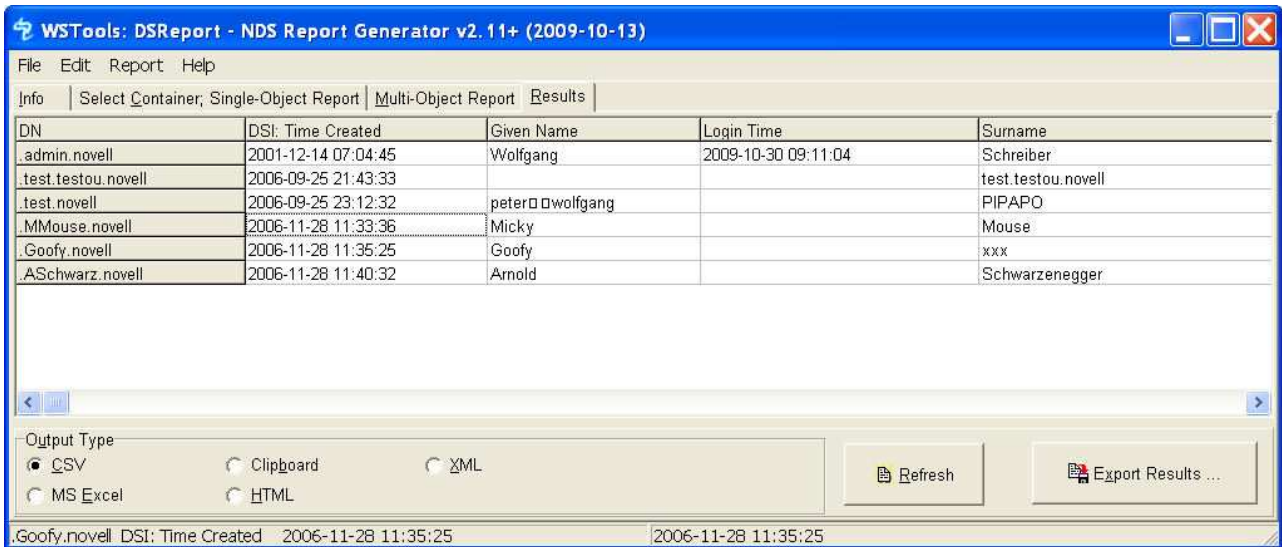


Sorting Results

Tab "Results": To sort a report on any column right-click on the results window and choose the sort option from the context menu.

This option is available for single object and multiple object reports, however it is most useful with multi-object reports, where you can sort the list of objects by any reported attribute.





DN	DSI: Time Created	Given Name	Login Time	Surname
.admin.novell	2001-12-14 07:04:45	Wolfgang	2009-10-30 09:11:04	Schreiber
.test.testou.novell	2006-09-25 21:43:33			test.testou.novell
.test.novell	2006-09-25 23:12:32	peter□□wolfgang		PIPAPO
.MMouse.novell	2006-11-28 11:33:36	Micky		Mouse
.Goofy.novell	2006-11-28 11:35:25	Goofy		xxx
.ASchwarz.novell	2006-11-28 11:40:32	Arnold		Schwarzenegger

Output Type

☒ CSV ☐ Clipboard ☐ XML

☐ MS Excel ☐ HTML

Refresh Export Results ...

.Goofy.novell DSI: Time Created 2006-11-28 11:35:25 | 2006-11-28 11:35:25

Hiding Empty Attributes

Tab "Results": When getting details on single objects, you will often see many unvalued attributes.

This often is useful information, but sometimes you'd like to see only valued attributes. Use the context menu to hide unvalued attributes.

WSTools: DSReport - NDS Report Generator v2.11+ (2009-10-13)

File Edit Report Help

Info | Select Container; Single-Object Report | Multi-Object Report | Results

Attribute Name	Value
ACL	[R] MMouse.novell / [All Attributes Rights] [RW] MMouse.novell /
aoInternal	TRUE
aoUserId	id2
CN	MMouse
creatorsName	CN=admin,O=admin
Description	Disneyworld
DSI: DN	.MMouse.novell
DSI: Parent	.novell
DSI: Partition Root	[Root]
DSI: Subordinates	0
DSI: Time Created	2006-11-28 11:33:36
DSI: Time Modified	2009-07-01 23:06:31
Given Name	Micky
Group Membership	test1.novell test2.novell test3.novell test4.novell test5.novell
GUID	008034E7CB7EDB118394000C2925CB1E
Language	Dutch
Login Disabled	FALSE
Login Maximum Simultaneous	10
modifiersName	CN=admin,O=admin
Object Class	User Auxiliary Organizational Person Person LoginProperties
Revision	23
Security Equals	test1.novell test2.novell test3.novell test4.novell test5.novell
Surname	xxx
Used By	(0) [Root]:

Output Type

☒ CSV ☐ Clipboard ☐ XML

☐ MS Excel ☐ HTML

Refresh Export Results ...

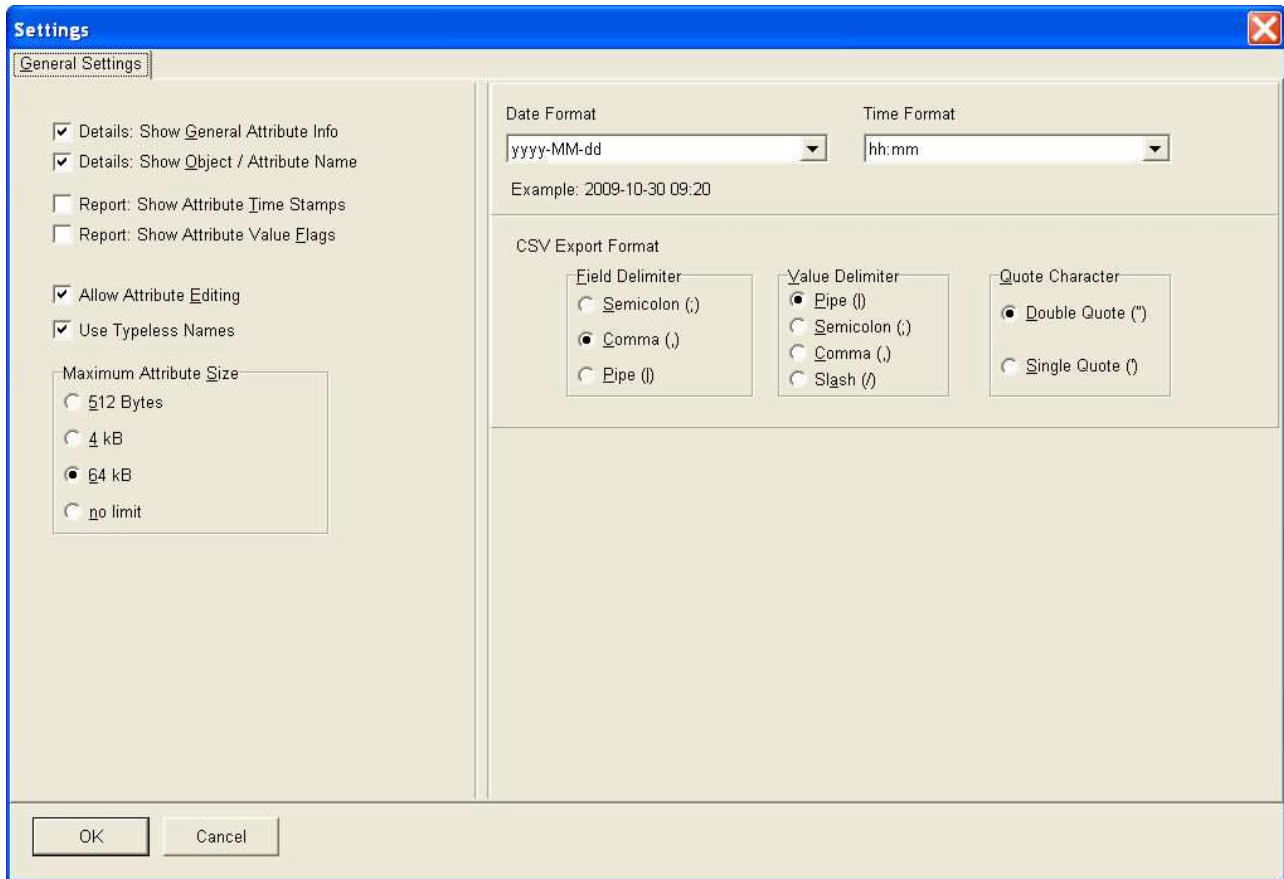
Exporting Results

Tab "Results": To export a report, run it, then press the "Save" button, or right-click on the results window.

To export the results into Excel, MS Excel needs to be installed on the machine

After pressing "Save", the result table will also be in the clipboard and can be pasted into other applications.

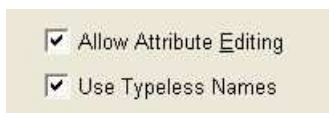
When exporting report data as CSV and you prefer a different output format, you may specify the CSV data format (date/time format, delimiters and quote characters) in the "Edit"/"Settings" menu



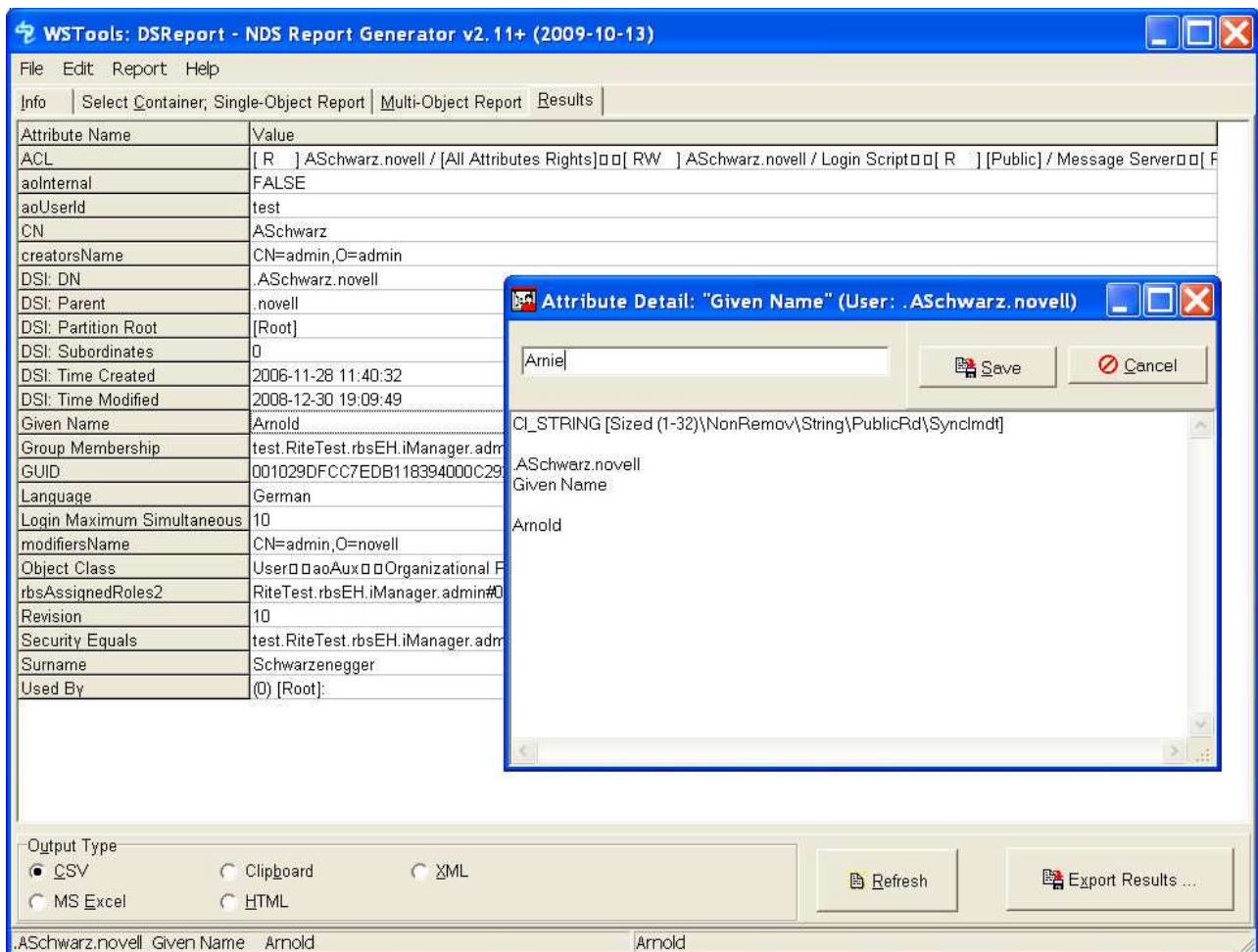
Editing Attribute Values

DSReport allows you to modify attribute values as long as you have sufficient privileges to do so. Currently editing attributes is limited to basic attribute types (like Strings, Booleans, Integers) and to single-valued attributes.

To enable this option, activate the respective check box in "Edit"/"Settings":



If the edit mode is enabled and you double-click on one of the attribute values that qualify for editing, you'll see an additional edit field in the details window:



Getting Attribute Value Time Stamps

By default, a report on objects may include the regular DSI time stamps (i.e., the creation and modification data of the object)

Sometimes you may be interested in details about when a specific attribute of attribute value was last modified. To get this information, open the "Edit"/"Settings" menu and select "Show Attribute Time Stamps"

- ☒ Report: Show Attribute Time Stamps
- ☐ Report: Show Attribute Value Flags

With this option selected you will receive time stamp information for each reported attribute and value. This may be handy when trying to figure out what modifications were performed on the selected object. Only the time of the last value modification will be displayed, so if the same attribute was overwritten multiple times, only the last modification time of the respective values will be shown.

The screenshot shows the WSTools: DSReport - NDS Report Generator v2.11+ (2009-10-13) application. The main window displays a 'Multi-Object Report' for the user 'Goofy.novell'. The report is a table with two columns: 'Attribute Name' and 'Value'. The 'Attribute Detail' pop-up window is open, showing the details for the 'Security Equals' attribute. The pop-up window title is 'Attribute Detail: "Security Equals" (User: .Goofy.novell)'. The pop-up content shows the 'DIST_NAME' as '[NonRemov\ServerRd\WriteManaged\SyncIcmdt\0x2000]' and a list of users: 'Goofy.novell', 'Security Equals', and a list of test users from 2008-06-11 to 2008-12-30.

Attribute Name	Value
ACL	[2006-11-28 11:35:25] [R] Goofy.novell / [All Attributes Rights] [2006-11-28 11:35:25] [RW] Goofy.novell
aoInternal	[2006-11-28 11:46:44] TRUE
aoUserId	[2006-11-28 11:46:44] newID
CN	[2006-11-28 11:35:25] Goofy
creatorsName	[2006-11-28 11:35:25] CN=admin, C=Novell
Description	[2009-07-01 23:06:18] Disneyworld
DSI: DN	.Goofy.novell
DSI: Parent	.novell
DSI: Partition Root	[Root]
DSI: Subordinates	0
DSI: Time Created	2006-11-28 11:35:25
DSI: Time Modified	2009-10-30 09:30:07
Given Name	[2009-10-30 09:30:07] Goofy
Group Membership	[2008-06-11 12:00:18] test1.novell
GUID	[2006-11-28 11:35:25] 80942C28C0
Language	[2006-11-28 11:35:25] English
Login Maximum Simultaneous	[2008-11-30 14:03:43] 10
modifiersName	[2009-10-30 09:30:07] CN=admin, C=Novell
Object Class	[2006-11-28 11:35:25] User [2006-11-28 11:35:25]
Revision	[2009-07-01 23:06:18] 41 [2009-07-01 23:06:18]
Security Equals	[2008-06-11 12:00:18] test1.novell
Surname	[2008-06-11 13:14:41] xxx
Used By	[2007-03-15 19:10:11] (0) [Root]:

Output Type: ☒ CSV ☐ Clipboard ☐ XML ☐ MS Excel ☐ HTML

Buttons: Refresh, Export Results ...

Footer: .Goofy.novell Security Equals [2008-06-11 12:00:18] test1.novell [2008-06-11 12:00:18] test1.novell [2008-06-11 15:42:44] test2.novell

1.7. Filtered Reports

Tab "Multi-Object Report": The Multi-object report can be filtered. You may select up to 3 attributes and specify filter strings that will be compared with the attribute values at run time.

The 3 filters will be combined with a logical AND. This allows you for example reports to identify users that have been created in the year 2001, but have not logged in during 2002.

A filter is ignored if the attribute name or the filter string is left empty.

1.8. Saving/Loading report specifications (canned reports)

Once you have run a report, you can save the report specifications (i.e., your report criteria) for repeated use.

The context menu in the report window allows to save the current report, or to load and run previous specifications.

You may also specify the name of a saved report on the command line when starting DSReport (Example: DSReport /Report="F:\Reports\User Admin.rpt")

DSReport will terminate after running a canned report if you add the option "/Quit".

1.9. Notes about canned reports

The canned report is a regular ini file with the extension "rpt" and may be edited to your needs.

If you save the report **before** saving the results, running the canned report **will not** auto-save the results.

If you save the report **after** saving the results, running the canned report **will** auto-save the results in the specified file.

1.10. Reading the schema: Classes and Attributes

Tab "Multi-Object Report": The page for multi-object reports offers an option to list and export the classes and attributes in the schema.

The classes list will display details on the object classes in the tree's schema:

WSTools: DSReport - NDS Report Generator v2.11+ (2009-10-13)

File Edit Report Help

Info | Select Container, Single-Object Report | Multi-Object Report | Results

Class Name	Super Classes	Containment Classes	Naming Attributes	Mandatory Attributes	Optional Attributes	ASN						
[Anything]	Top											
[Nothing]	Top											
advansysFvConfig	Resource	domain	Organization	CN	advansysFvClientOptions	ACL	Audit: File Link	Auth	2.16.840.1.113719.2.132.1			
advansysFvScript	Top	advansysFvScriptLib	Object Class	CN	advansysFvScriptEnabled	ACL	advansysFvAppletSou		2.16.840.1.113719.2.132.1			
advansysFvScriptLib	Resource	domain	Organization	CN	CN	Object Class	ACL	advansysFvLibType	2.16.840.1.113719.2.132.1			
AFP Server	Server	domain	Organization	CN	CN	Object Class	Account Balance	ACL	2.16.840.1.113719.1.1.6.1			
Alias	Top				Aliased Object Name	ACL	Audit: File Link	Auth	2.5.6.1			
aoAux					aoInternal	aoUserld	cost					
appApplication	Top	domain	Organization	CN	CN	Object Class	ACL	Audit: File Link	Auth	2.5.6.12		
applicationEntity	Top	Country	domain	Loc	CN	Object Class	ACL	Audit: File Link	Auth	2.5.6.11		
applicationProcess	Top	Country	domain	Loc	CN	Object Class	ACL	Audit: File Link	Auth	2.5.6.11		
Audit: File Object	Top	Country	domain	Loc	CN	Audit: Contents	ACL	Audit: A Encryption Ke	2.16.840.1.113719.1.12.6			
auxUserBuvExtensions	auxUserExtensions						auxAbteilungSoll	auxAnred				
auxUserExtensions							auxAbteilungSoll	auxAnred				
auxUserNswExtensions	auxUserExtensions						auxAbteilungSoll	auxAnred				
auxUserProvisioning							buLotusDominoEnabled					
basfExtensions							basfAccountKey	basfActivit	2.16.840.1.113719.3.5434			
basfGCDAux							basfCompanyID	basfRefGC				
basfSAPCategory	Top	Country	domain	Org	CN	basfSAPSystemCategory	ACL	Audit: File Link	Auth	2.16.840.1.113719.1.200.1		
bhGadget	Top	Country	domain	Loc	CN	bhInstanceClassName	ACL	Audit: File Link	Auth	2.16.840.1.113719.1.200.1		
bhPortal	ndsLoginProperties	Country	domain	Loc	CN	Object Class	Account Balance	ACL	2.16.840.1.113719.1.200.1			
bhPortalConfig							bhConfig	bhObjectGUID	2.16.840.1.113719.1.200.1			
bhPortalConfigRW							bhConfigRW		2.16.840.1.113719.1.200.1			
bhPortalConfigSecretStore							bhConfigSecretStore		2.16.840.1.113719.1.200.1			
bhPortalGroup	Top	Country	domain	Loc	CN	Object Class	ACL	Audit: File Link	Auth	2.16.840.1.113719.1.200.1		
Bindery Object	Top	domain	Organization	Bindery Type	CN	Bindery Object Restriction	ACL	Audit: File Link	Auth	2.16.840.1.113719.1.1.6.1		
Bindery Queue	Queue	Resource	domain	Organization	Bindery Type	CN	Bindery Type	CN	ACL	Audit: File Link	Auth	2.16.840.1.113719.1.1.6.1
certificationAuthority						authorityRevocationList	crossCertificatePair		2.5.6.16			
certificationAuthorityVer2						authorityRevocationList	crossCertificatePair	deltaR	2.5.6.16.2			
CommExec	Server	Top	domain	Organization	CN	CN	Object Class	Account Balance	ACL	2.16.840.1.113719.1.1.6.1		
Computer	Device	Top	domain	Organization	CN	CN	Object Class	ACL	Audit: File Link	Auth	2.16.840.1.113719.1.1.6.1	
contingentWorker							vendorAddress	vendorName	2.16.840.1.113719.1.8.6.2			
Countrv	Top	[Nothing]	domain	Top	C	C	Object Class	ACL	Audit: File Link	Auth	2.5.6.2	

Output Type

☒ CSV

☐ Clipboard

☐ XML

☐ MS Excel

☐ HTML

Refresh

Export Results ...

.ASchwarz.novell Given Name Arnold DUS-NCE-LABTREE .novell

The attributes list will display details on the object attributes in the tree's schema:

WSTools: DSReport - NDS Report Generator v2.11+ (2009-10-13)

File Edit Report Help

Info | Select Container, Single-Object Report | Multi-Object Report | Results

Attribute Name	Syntax	Attribute Flags	ASN
[Anything]	OCTET_STRING		
[Nothing]	OCTET_STRING		
accessCardNumber	CI_STRING	[String\SyncMdt]	2.16.840.1.113719.1.8.4.21
Account Balance	COUNTER	[SingleVal\NonRemov\SyncMdt]	2.16.840.1.113719.1.1.4.1.1
ACL	OBJECT_ACL	[NonRemov\SyncMdt\0x2000]	2.16.840.1.113719.1.1.4.1.2
advansysFvAppletSource	OCTET_STRING		2.16.840.1.113719.2.132.4.5
advansysFvClientOptions	INTEGER	[SingleVal]	2.16.840.1.113719.2.132.4.3
advansysFvLibType	INTEGER	[SingleVal]	2.16.840.1.113719.2.132.4.4
advansysFvScriptEnabled	BOOLEAN	[SingleVal]	2.16.840.1.113719.2.132.4.1
advansysFvScriptSource	STREAM	[SingleVal]	2.16.840.1.113719.2.132.4.2
advansysFvTimestamp	TIME	[SingleVal]	2.16.840.1.113719.2.132.4.6
Aliased Object Name	DIST_NAME	[SingleVal\NonRemov\SyncMdt\0x2000]	2.5.4.1
Allow Unlimited Credit	BOOLEAN	[SingleVal\NonRemov\SyncMdt]	2.16.840.1.113719.1.1.4.1.4
aoInternal	BOOLEAN	[SingleVal]	
aoUserId	CI_STRING	[String]	
assistant	DIST_NAME	[SyncMdt]	2.16.840.1.113719.1.8.4.2
assistantPhone	TEL_NUMBER	[String\SyncMdt]	2.16.840.1.113719.1.8.4.3
associatedName	DIST_NAME	[SyncMdt]	0.9.2342.19200300.100.1.38
attributeCertificate	OCTET_STRING	[PublicRd\SyncMdt]	2.5.4.58
audio	OCTET_STRING	[SyncMdt]	0.9.2342.19200300.100.1.55
Audit: A Encryption Key	OCTET_STRING	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.1.0
Audit: B Encryption Key	OCTET_STRING	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.2.0
Audit: Contents	INTEGER	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.3.0
Audit: Current Encryption Key	OCTET_STRING	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.5.0
Audit: File Link	DIST_NAME	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.6.0
Audit: Link List	DIST_NAME	[SyncMdt]	2.16.840.1.113719.1.12.4.7.0
Audit: Path	PATH	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.8.0
Audit: Policy	OCTET_STRING	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.9.0
Audit: Type	INTEGER	[SingleVal\SyncMdt]	2.16.840.1.113719.1.12.4.4.0
Authority Revocation	OCTET_STRING	[SingleVal\NonRemov\ReadOnly\SyncMdt]	2.16.840.1.113719.1.1.4.1.5
authorityRevocationList	OCTET_STRING	[PublicRd\SyncMdt]	2.5.4.38
auxAbteilungSoll	CI_STRING	[SingleVal\Sized (0-64512)\String]	
auxAnrede	CI_STRING	[SingleVal\String]	

Output Type
☒ CSV ☐ Clipboard ☐ XML
☐ MS Excel ☐ HTML

Refresh Export Results ...

.Aschwarz.novell Given Name Arnold DUS-NCE-LABTREE .novell

Just as all the other results tables, you may export the schema details in one of the available formats..

2. Other important information

2.1. Reading attributes with unknown syntax

DSReport reads the schema at run-time, therefore can detect all attribute types, however only the standard syntaxes will be read.

The current version of DSReport does not support the following (uncommon) NDS syntaxes: SYN_COMPONENT, SYN_ENUM_COMPONENT, SYN_NULL, SYN_OID, SYN_ENUMERATED, SYN_SET, SYN_SEQUENCE, SYN_CHOICE. So far, I have not ever met a customer who has used or expressed the need for one of these attribute syntaxes.

If such unknown syntax is detected, the attribute value will contain a string like this:
"<nr> <hex data>"

Drop me a note if you need such decodes.

2.2. Reading ZEN attributes

Since the NDS attribute structure is not yet fully documented, some ZEN attributes may be skipped or only partially decoded.

3. Program History

1999/01 Original version
2001/01 New: auxiliary/multi-class support
2001/05 New: DSI flags information
2001/11 Basic ZEN attribute decodes
2001/12 Mod: Better export of multi-valued attributes
2002/01 New: Additional decodes
2002/04 New: HTML/XML export options
2002/05 New: options to save/load report specifications (canned reports)
New: extended ZEN attribute decodes
New: OctetList decodes
2002/06 New: options to filter results by attribute contents
2002/09 Fix: decode of INTEGER attributes
Mod: Time stamps now shown in local time (not UTC time)
2002/10 New: result custom sort options
New: support for auxiliary attributes in multi-object report
2002/12 Fix: ASCII output format
New: auto-save and sort options for canned reports
2003/02 New: option to save available classes/attributes in popup menu
2003/04 New: Additional decodes and removed trailing CRLF
2004/01 New: Schema export, Additional decodes, new filter options ([anything]/[nothing])
2004/03 New: option to cancel large reports
2004/06 Fix: reverse 'I' flag in ACLs
2004/10 Fix: error during exit on Win2003
2004/11 New: Attribute Modification Time and Attribute flags
2005/01 New: option to edit attributes
New: more output display configuration options
2005/02 Fix: search with base=[root]
2005/08 Fix: now can save reports with only one match
New: option to report on objectClass= '*'
Mod: Absolute vs relative representation of DNs (e.g., "bob.myOu.myO" vs. "bob.myOu.")
2007/06 v1.74 New: refresh tree list
2007/09 v1.75 New: configurable date/time format
2007/10 v2.0 Mod: Replaced the tree/container selector by a treeview GUI
2007/10 v2.01 Fix: Export exception
2007/11 v2.02 New: partial treeview refresh, treeview double-click
2007/11 v2.03 New: value timestamps
2008/04 v2.04 Fix: Remove leading value blank
2008/07 v2.04 Fix: Canned Reports error message 'Invalid Report File'
2008/12 v2.07 Fix: Refresh option in tree view did not always refresh
New: Option to check for online updates
2009/03 v2.08 Fix: some program settings were not read at program start
2009/07 v2.09 New: decode ZEN attribute "App:Macros"
2009/07 v2.10 Fix: reactivated "Schema Classes" button
2009/09 v2.11 Fix: after cancelling one running report you couldn't run another one without restarting
2009/10 v2.12 New: additional CSV export options, updated documentation

4. Q & A

Q: I have the Netware Client 32 and a Netware 4.11 server - when starting DSReport I get the error message "The DSReport.exe file is linked to missing export NETWIN32.DLL:3050)"

A: It seems you have a very old NetWare client - you should get a free update from www.novell.com

Q: Where can I get information on available classes and attributes?

A: The schema documentation can be found on <http://developer.novell.com/ndk/doc/ndslib/> - more detail is available in the KnowledgeBase info store on http://support.novell.com/search/kb_index.jsp

Q: Will DSReport work with eDirectory on Linux or Solaris and other platforms?

A: Yes, as long as you run DSReport on a Win32 client with the Novell Client 32. The platform that hosts eDirectory is irrelevant.

Q: Attributes are displayed as hexadecimal strings in DSReport, but ConsoleOne interprets them correctly. How comes?

A: ConsoleOne may have a snapin that does the decoding. DSReport tries it's best to display data in a useful format, but cannot possibly know all custom attribute syntaxes

Q: Where can I get support or answers on my questions about on DSReport?

A: No official support is provided for DSReport - get advice or share comments with others on the eDirectory news groups. There also is a new discussion group for WSTools – check the link on www.wstools.de/

Q: I'm trying to use DSReport to find users with the "Other name" attribute set as shown on the General|Identification tab in ConsoleOne. However, I'm not finding this attribute in the list when selecting from available attributes. Are some attributes not in your list?

A: "Other name" is not an eDirectory attribute. "CN" is a multivalued attribute and C1 names the second and any subsequent CN value "other name"

Q: The Email addresses shown by DSReport seem not to match the addresses shown by GroupWise

A: Be aware that you have multiple places where the Email address can be stored, namely "EMail Address" and "Internet Email Address". The info labeled "E-Mail Address" in C1 actually is not data from the attribute "EMail Address", but from the attribute "Internet Email Address". GroupWise uses the latter.