SDS 21.0

User guide

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TECHNOLOGIES



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Welcome to the SoftThinks Deployment Suite (SDS) 21.0 User Guide!

SDS is a unified, modular and multiplatform (Windows, macOS, Linux x86/x64 devices) solution for deployment, maintenance and repair.

WARNING: This product, being scalable and customizable, some features described in this document may not be available in your version of the product and the screenshots may not exactly match your workflow. Also, some customizations of your product version may not be described in this document.

What's new?

This version 21.0 mainly brings the following changes:

- 1. Windows devices support
 - a. Full support for Windows 10 (including IoT) up to the October 2020 Update (Build 2004 / 20H2)
 - b. Added drivers to previous 19H1 boot images (20H1 has issues and no ADK update for 20H2)
- 2. macOS devices support
 - a. Enhanced support for recent devices
 - b. Added support of 4K B/sector disks
 - c. Added support of APFS disks
 - d. Decreased image size and improved capture/deployment performances
 - e. Enhanced macOS version detection
- 3. Linux devices support
 - a. Added partial support of Linux LVM partitions (standard LVM layouts supported)
 - b. Added support of Ext4 with 64bit extension
 - c. Enhanced Linux version detection
- 4. Wipe enhancements:
 - a. Added support of Sanitize / Secure Erase protocols on NVME disks connected as RAID (iRST) and on disks plugged through USB
 - b. Added support of Sanitize protocols on SAS disks (SCSI) with automatic choice of the best wipe protocol (Crypto or Block erase for SSDs and Crypto or Overwrite for HDDs)
 - c. Improved SMART status detection on Adaptec controllers and switched to Disk Health detection on SAS disks
 - d. Added support for multiple wipe array connectors entries
 - e. Optimized disks detection and added UI refresh through F5 keystroke in rack view mode
 - f. Added detection of PPID (Piece Part Identification) for Dell systems hard drives
 - g. Added support of Dell PowerEdge RAID controllers (PERC) and ATTO controllers
 - h. Managed ATA disks staying in frozen state
 - i. Fixed disk model, serial number and vendor detection with Adaptec HBA controller
 - j. Fixed size detection with NETAPP 520B/sector disks
 - k. Fixed serial number detection with disks connected through NVME bus
- 5. Hardware Diagnostics enhancements:
 - a. Most of the tests which were available under Windows and Windows To Go are now also usable under WinPE
 - b. Updated BurnInTest engine to version 9.2 build 1000
 - c. Added the possibility to discard non relevant tests based on automatic detection and user's responses in audit module
 - d. Added the possibility to ask the user to select one of the predefined reasons (customizable) when he skips a test
 - e. Audio Test: Added the possibility to define the volume level
 - f. Battery test: Improved charging test and reduced manipulations (no more need to unplug AC power if already plugged)
 - g. Keyboard Test: When a layout is created / modified it is automatically pushed to the server to be used by next devices

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- h. Touchscreen Test: Added automatic detection (test is discarded if the screen has not this capability)
- i. Disk Test: Added more information in report (SSD vs HDD, System Disk vs Other Disk...)
- 6. Auditing module improvements:

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- a. Added the ability to navigate between the controls and inside the controls with the keyboard
- b. Added the possibility to use script variables in questions definitions
- c. Added the possibility to specify several values for an edit box
- d. Added multiline support for edit box and managed carriage return in values
- e. Allowed radio buttons list instead of combo box for multiple choices control
- f. Added the possibility to specify a response as mandatory
- g. Allowed multi-selection
- 7. Reports enhancements
 - a. Added more information such as Disks Smart attributes, detailed hardware diagnostics results, grading / trade-in code, cosmetic questions...
 - b. Enhanced multiple wipe rounds presentation
 - c. Enhanced template layout and uniformized wording
 - d. Added the possibility to send reports by email

e. Made report filename more customizable (any information from the database can now be used)

- 8. Trade-In module & Label printing
 - a. Integrated new Tradeln module which can generate a Grade / Tradeln code based on customer's rules
 - b. Added the possibility to generate labels (PDF) including if needed barcode with customizable layout and contents which can be printed automatically on a printer plugged and configured on the SDS server
- 9. Nomad disk enhancements:
 - a. Nomad disk can now be used to diagnostic and wipe devices, and not only to deploy images to them
 - b. Nomad disk operations are now stored into a local SQL database which is merged into main database when plugged to SDS server
 - c. Allowed creation of UEFI Nomad Disk on approved USB/SDD sticks
- d. Users are now copied from SDS server Database to Nomad Disk database (for user access management) 10. User Interface enhancements
 - a. All modules now support full screen mode
 - b. Added Hi-DPI support
- 11. SDS Console enhancements:
 - a. Added the possibility to view/add/delete drivers from boot images
 - b. Added importations of applications in bulk
 - c. Allowed application descriptions with more than 260 characters
- 12. Script enhancements
 - a. Added the possibility to start several modules at the same time (BETA limited to Wipe, HW diagnostics & Audit)
 - b. Added user input field into message box which value can be checked and stored into logs & SQL database (can be useful to restrict some features through a PIN code)
- 13. Stability improvement (memory management optimizations)
- 14. Various fixes, enhancements and optimizations

We also developed a Dashboard (web portal) to which you can push all operations made on your SDS server(s), make them accessible to whomever you want with specific rights in a very convenient and customizable graphical way. You can also export statistics very easily with many filters and criteria (See SDS Dashboard User Guide).

If you created bootable USB sticks with an older version you will need to update them (See Create Deployment USB stick).

It is mandatory to update your WinPE image(s) to the latest version for full compatibility with all Windows versions and the support of the latest enhancements, bring to Bitlocker for example, but also for the hardware diagnostics.

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Glossary

Definitions, Acronyms and Abbreviations used in this user guide

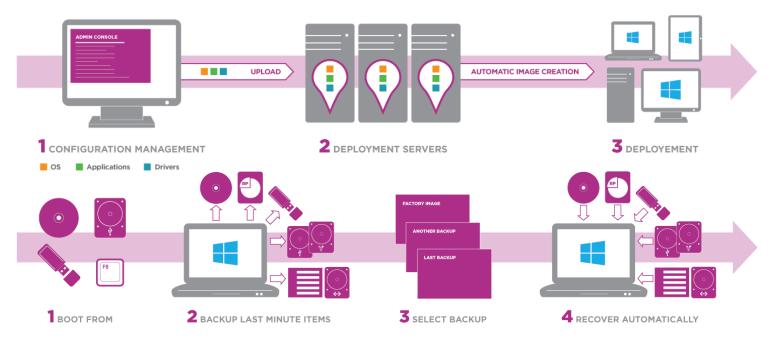
Term	Explanation	
	Automatic Deployment File: Similar to the Profile in that it is linked to specific hardware. The difference is	
ADF	that it also is named with a unique identifier for the model being deployed such as the Motherboard Part	
	Number	
Boot key / stick	Bootable USB key you can use to boot a computer without PXE boot	
BTO	Built To Order: These are PCs that are built as they are ordered by the customer with a specific hardware	
	configuration	
CRC	Cyclic Redundancy Check: Error correction method	
сто	Configured To Order: These are PCs that are installed with a specific set of software as ordered by the	
	customer	
Factory Image	First complete system backup made in Factory to restore the system to its Factory state.	
FAT	File Allocation Table: File System managing files up to 4GB	
INF	This refers to the text files that permits the installation of peripheral, those files are using the extension .INF	
	(mymodem.INF)	
LAN	Local Area Network	
MBR	Master Boot Record	
Nomad Disk	Instead of using a server, you install the software on an external hard drive.	
	New Technology File System: file system was introduced originally in Windows NT. It has been used in all	
NTFS	versions since Windows 2000. NTFS is reliable, fast, and virtually incorruptible and can recognize and	
	format large hard disks	
OOBE	Out-Of-Box Experience	
PnP	Plug and Play: system that enables the installation of peripherals without any manual operation on the	
	hardware (I.e. Jumpers)	
PnP ID	Plug and Play IDentifier: strings returned by PnP hardware when enumerated by the operating system	
POST	Power On Self Test: Sequence of test that happens while a PC is cold-booting (i.e. RAM count)	
Drocot	Predefined setup of options that can be applied to any unit (not linked to any specific hardware) in order to	
Preset	deploy Generic Images	
Profile	Predefined setup of options linked to specific hardware and so which it can only be used to deploy Static	
Prome	Images to a specific model of computer	
PXE	Preboot eXecution Environnement	
RIS	Remote Installation Services	
Smart Imago	Small update to the base image that is applied to the same hardware that captured from. The system will	
Smart Image	apply the base image and then the smart images	
	Windows Preinstallation Environment: lightweight version of Windows used for the deployment of	
WinPE / WinRE	workstations and servers or troubleshooting an operating system while it is offline	
WinRE	Windows Recovery Environment: used primarily to help save or salvage your Windows operating system	



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Presentation

SDS is a solution dedicated to operating systems and applications deployment. Designed for your computer, SDS allows you to effectively manage the process of PC repair.



SDS: industrialization to reduce repair and production costs

- Automatic deployment solution:
 - Deploy according to BOM, hardware PNP, ...
 - Full BTO/CTO support
- One controlled process:
 - Entire process managed by using a powerful script
 - o Embedded automatic decision maker
- More services for more profitability:
 - \circ $\;$ Each module by service, can be activated on an as needed basis $\;$
 - \circ $\;$ High added value branded services for end-user support and maintenance
 - o On-site and off-site availability



SDS: Unique Computer Support Solution Create Generic or Factory-like Images BTO / CTO Fully Supported Manage Images from Your SDS Database **Concurrent Operations** Profile Deployment: OS, • State of the Art Management Console Software, Drivers & Parameters • **Computer Asset Management** Automatic with Defined Profiles Server Data Reports • **Control Software Installation** Hardware Inventory Reports • Image **Bios & Windows updates Company KPIs reports** Database Management Reporting & Image Computer Deployment Management All-in-one, OS Applications **Automatic &** Drivers **Adaptive** Hardware Backup/ Hardware Recovery & **Diagnostics** Migration & HDD Wipe System Diagnostics & Repair **Concurrent Operations OS Upgrade Compatible Complete Hardware Diagnostics** Data Backup & Recovery (BurnInTest + SoftThinks) **Full HW Diagnostic Reports** State of the Art Disk Wipe Process Smart Repair: User Data Integrity Safe **Repair Process**

All-In-One : The Most Complete Deployment, Maintenance & Refurbishing Package Available

Automatic : Capable of Being Automated and Can Run Features Simultaneously

Adaptive : Modify up to 20 Features for Manufacturing Original Equipment, Managing Computer Repair Centers, Running Refurbishing Activities, Maintaining Computers, Running Small Repair Businesses

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Dynamic Technology Overview

This chapter aims to give you a broad picture of what is SoftThinks Dynamic Preload and Recovery Technology using the example of a BTO/CTO PC manufacturer.

Of course, all parts briefly covered in this Technology Overview will be thoroughly detailed throughout this manual as we go along with the different processes involved. However, reading this overview should help you understand the more technical issues you will face during the implementation of the technology as described in the manual. You will also be ready to prepare your company's production and recovery strategies.

BTO/CTO PC Manufacturing Industry production facts

Consider the following example:

- A PC manufacturer produces **BTO** PCs using the 17 following devices which require specific set-up during production such as driver integration within the operating system preinstalled before shipment of the PC:
 - 4 x Motherboards
 - 5 x Graphic cards and their bundle software
 - 3 x Sound Cards and their bundle software
 - 2 x Modems and their bundle software
 - 3 x Network devices

Note: Although there can be some other hardware specifications like cases, CPUs, hard disks, we do not take them into consideration in our example, as they do not affect the pre-installation process in production nor the restore of the PC after a crash at end user level.

Only considering the different hardware configurations, the "OEM" already has a potential of $4 \times 5 \times 3 \times 2 \times 3 = 360$ different PCs that can leave the production line (BTO).

• "OEM" is also doing **CTO** PCs, and therefore technicians in production could have to preinstall 1, 2 or 3 different applications (or none) on their PCs according to each client requirements.

Therefore, you can now multiply the BTO PCs figure by the 9 (= 3×3) combination of applications "OEM" could ship with its equipment (plus one when no software is shipped):

 $360 \times 10 = 3600$ different PCs or with different software configurations (BTO/CTO).

<u>Problem</u>:

In our example, - quite common in the BTO/CTO industry -, it is obviously almost impossible to create as many different static images prepared to fit all or even part of these configurations for a fully unattended preload process in production. This means that, even though "OEM" can prepare a few static images for some PCs, the technician would very often have to complete the pre-installation of most PCs produced manually.

<u>Answer</u>:

SoftThinks offers with the Dynamic Technology to pre-install all PCs in production with <u>a unique and universal Master</u> <u>Image</u> per operating system and language deployed through the network or with a hard disk using a replication platform or a cloning software.

Problem:

It also seems almost impossible to provide the end user with a recovery device that could restore the PC to at least factory level without any manual integration of drivers, bundle software or applications.

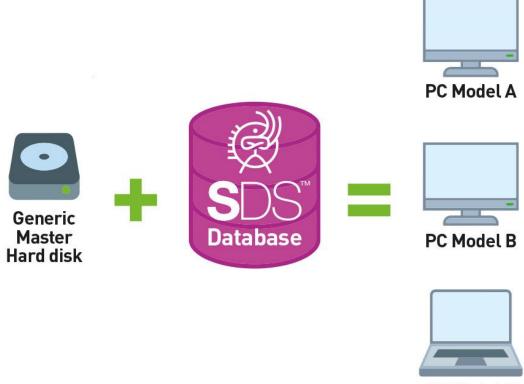
Answer:

SoftThinks Backup and Recovery is a full <u>Recovery Program</u> which can be preinstalled on hard drive.

How does SoftThinks Dynamic Technology handle the BTO/CTO situation?

Basic principle

The Dynamic Technology basic principle is to merge a Generic Master common to the entire production with a database of all items that affect the pre-installation process of all PCs on the factory floor.



PC Model C

During deployment, all components of the Target PC are automatically recognized, and dynamically installed/configured with the items found in the database. The entire database being placed on the same Master, there is no need to create several images for different PCs.

The BTO deployment process is universal and unattended!

The same items are provided to the End User within SoftThinks Backup & Recovery system allowing a full restore of the PC in case of a crash.



Installation & Configuration

Hardware Minimum Requirements

- ✓ CPU: Intel Xeon E3/ Core i5
- ✓ RAM: 8GB min
- ✓ Storage: A disk for the OS (ideally a 128GB or more SSD) and a disk for the database (ideally 2xHDD in RAID)
- ✓ Network: 2 gigabit network cards

Software Prerequisites

- ✓ Windows Server US or FR native with language pack if needed (Latest version recommended or at least Windows Server 2012 R2)
- ✓ Active Directory domain services and DNS Server DNS installed and configured
- ✓ DHCP Server DHCP installed and configured with the DHCP lease time set to 1h or 2h
- ✓ Windows Deployment Services (WDS) installed and configured
- ✓ WDS remote installation folder shared with Full Control for Everyone and labelled "RemoteInstall"
- Latest Windows Assessment Deployment Kit (Windows ADK) installed (download from <u>https://developer.microsoft.com/en-us/windows/hardware/windows-assessment-deployment-kit</u>)
- ✓ SQL server configured on the server where you want to store usage statistics (not required if you want to use SDS Dashboard)

Please refer to <u>How to configure Windows Server</u> to configure your server step-by-step in order to match the prerequisites above.

Note: It is technically possible, but not recommended, to install SDS on a non-Server Edition of Windows but with the following limitations:

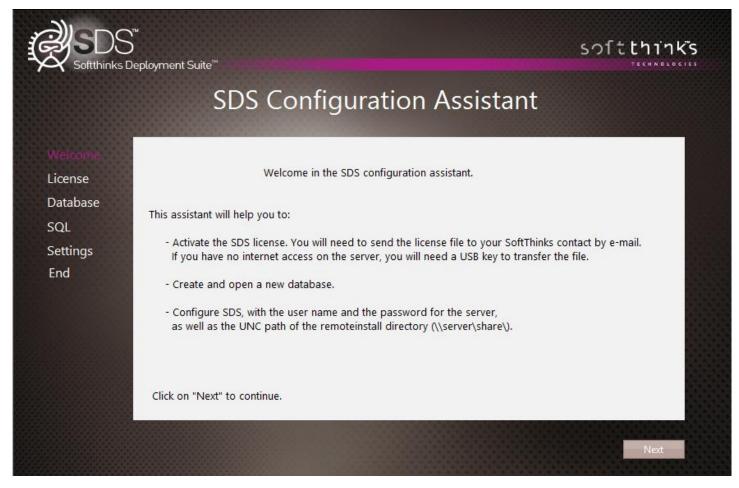
- No PXE boot (but you can boot from a bootable USB key plugged on an Ethernet + USB $\leftarrow \rightarrow$ USB adaptor)
- No native DHCP (See <u>How to configure DHCP on a non-server edition of Windows)</u>

SDS Installation

Once you have ensured that all the hardware and software prerequisites are matched, you can launch the SDS installer (setup.exe in the installation folder) and follow the on-screen steps.

At the end of the process, the SDS configuration wizard will be automatically launched.

SDS Configuration and activation





License

Enter the activation code which has been provided to you. If you don't have it please click on the button "Copy to..." and send the file generated to your commercial contact:

	SDS Configuration Assistant	
Welcome	Contacting Selector Service Done.	
License	Collecting informations Done.	
Database	Copy to	
SQL		
Settings	Waiting for "Activation Code"	
End	Activation Code:	
	Enable	

Once the activation code is successfully verified, a message box will indicate you that your product has been activated, as well as the license type, the days remaining, the deployments remaining and the maximum number of simultaneous connections allowed:

SDSFirstLaunch		×
Registered to: XXXX-XXXX-XXXX-XXXX-XXXX License: Full-Not locked to HW Day(s) remaining: 80 Deployment(s) remaining: Unlimited Max connection: 10	(ld:9)	
	OK	





SQL Configuration

Type the IP address of the server where you want to store the usage statistics (195.154.172.237 if you want to use SDS Dashboard), the username and password, and the database associated:

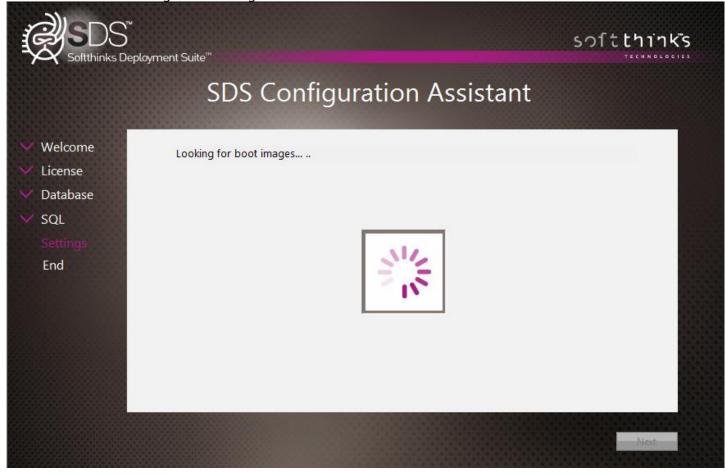
stant
Skip

If you want wipe reports, check the option "Activate?" and select "WipeReport" in the dropdown list.



Parameters

The wizard is now searching for boot images:





	ployment Suite™ SDS Configu	ration Assistant
	3D3 Conngu	
Velcome	Looking for boot images Do	ne.
Database	Username	×
SQL	Password	
Settings	Network Path	\\WIN-FI2QG4LON7V\REMINST\SDKDB
End	Domain	deploy.com
	Language	
		Apply

Click on "Apply" to configure the boot images and then click on "Next".



After the installation is completed, the SDKDB Folder will be present in the D:\RemoteInstall Folder. The folders inside the SDKDB Folder and their purpose are listed below:

General presentation of the folders composing the	ne folder SDKDB	
The SDKDB folder is present in the folder specified du	ring installation of the server version of SDS, the folder	rs that compose it are the ones below :
 ADF: Automatic Deploy File APPS: Folder containing the applications and informations about the software, in this folder, the folders APPO0 *** are present (containing applications) and the DTA folder (file identification softwares). Blos: Folder containing the Bios. Bootdisk: Folder that allows the implementation of a recovery partition. Deploy / Deploy64: Folder containing the files that will be used to deploy the images on the client. It contains the necessary files for the operation of SDS tools. There is a folder for 32-bit versions and one for 64bit. 	 DIFF: Folder containing the smartimages. DRV: Folder containing the drivers. Subfolders in it are sorted by categories (USB, video, network, etc). Env_files: Specific folder for the OS. Hotline: Folder containing the hotline tools. Presets: Folder containing the deployment profiles (Hardware recognition). Profils: Folder containing the profiles. Report: Folder containing the report files on the client machine. (a report can be generated at the end of an operation performed by the server SDS). 	 RIS: Folder containing the images in various formats: Casper : SoftThinks[™] method to capture file by file. VD : Sectorial method capture. Wim : Microsoft® method to capture file by file. Selector: Folder containing the license management. Temp: Folder containing the log files. Update: Folder containing the executable "asexec" (the software which will launch the setup at the boot).

You will find on your desktop a shortcut to the SDS administration console named « SDS Console »:



The SDS Console can also be installed on another PC through its standalone installer.

The SDS server is now ready to have any device booted to it.

SDS Console (SDSC)

The SDS console allows you to administer and configure your SDS database, including the images, drivers, applications, and offers some useful tools.

- Multithreaded Interface Accomplish other tasks while waiting for slow processes to complete.
- Visible Logging Console View logs in real-time and track processes as they occur.
- Workflow-based Configurations Each process uses a consistent workflow so no dependent steps can be omitted.

When you double-click on the "SDS Console" shortcut put on the desktop, the SDS Console interface will appear:

SDSC - V: 3.0.0.272	
File View Help	
🚥 🖷 🔜 🍐 🚺 🚺	
Database 🛛 🔒	
Operations	
Open Close	
Create	
Database	
	I Z
	- 6-9
Database 🔒	
Applications	
Drivers	
🧶 Images	
SmartImages	
🐲 BIOS	
Somputer	Output: 0 Warning(s) - 0 Error(s)
Profile/preset	
ŧ= Utilities	
Settings	
Ready	NUM

This user interface is split into different areas:

- The main menu ^A on the bottom left which allows you to select a set of tools to use. Each tool is tied to a specific task, such as Database, Applications, Drivers, Images, SmartImages, BIOS, Computer, Profile/Preset, Utilities or other Settings. Click on a tool to select it and bring up more options.
- The sub menu ^B above is dynamically updated depending on the item chosen in the main menu and will offer you the operations that can be performed with this element ("Open", "Close" and "Create" for the Database as shown in the screenshot above). Select an option here to open a workflow tab in the main window.
- The main window or Operations Workflow Screen ^C on the right. Each operation in use receives a separate tab on this screen allowing multiple tasks to be completed simultaneously. Once a Tool Operation or Object has been selected, a screen opens to allow the System Administrator to perform other actions through a workflow
- The output area on the bottom right where all status messages will be logged. The information contained here can be printed, exported, copied to the clipboard or cleared. Right click in the window for all possible options.
- The toolbar 🗉



Database

When you select "Database" (from the tab or from the submenu tree-view), you will get its statistics, meaning how many applications, drivers, images, smart images, BIOS components, Computer, and profiles/presets are stored in the database 2, as well as other information about the server itself, the deployments made and the SDS application components versions 3:

👹 SDSC - V: 3.0.0.272						
File View Help						
📼 🖷 🚔 🚺 🚺						
Database	Reployment Su	uita Concolo				softthinks
Operations	Beployment St					
Open						
Close, <u>Create</u>	SDS Console Database inform	nation				
Database	These information are statistics from	the server				2
⊡-@ Database 'LOCAL' - BLEU (SDS17.0.1)	DB: BLEU (SDS17.0.1) - Path: Z:\SI	OKDB				Ç
Applications		7	(a.			*
⊕-∰ Drivers ⊕-≝ Images		>	- Same	TERMINE		E
tillages ⊕≧a Smart Images	-ApplicationDrive 1083 item(s) 42 item		-SmartImage- 1 item(s)	-BIOS- 3 item(s)	-Computer- 0 item(s)	
BIOS	1005 item(5) 42 item	n(s) 239 item(s)	1 item(5)	5 item(s)	o item(s)	
						Ψ.
iai≊ Profile/preset						
	Description			Value		¥
	🖃 📲 Database Statistics					
				1 (Srv-Bleu)		
	Volume size			5587.37 GB		
	Free space			60.85 GB		
<	OS Image(s) Deployment statistics			259		
📄 Database	Customer			Serveur Bleu		
Applications	License upgrade count			3		
SW	License Last upgrade		Thu, J	an 04, 2018		
Drivers	License Start Time		Tue, S	ep 05, 2017		
Nages 🖉	License End Time		Wed, J	an 02, 2019		
SmartImages	USB Media license			125		
	Deployment locked to	database computers	No (Ma:	x:Unlimited)		
BIOS	Deployment done Deployment components v	orgion		613		
🔊 Computer	Beployment components v	00001				
Profile/preset						-4
t= Utilities					Ok Export	t Cancel
Settings	Image properties Smart Image propertie	Database information				
Ready						NUM

The « Export » button 🥑 allows you to export this information into an HTML or XML file.

Hint - SDS allows more than one database to be open during a session.



You can display the repartition of the images per OS by expanding the "OS Image(s)" node:

Description	Value	
🖃 📲 Database Statistics		
🖅 📲 Server	192.168.3.1 (Srv-Bleu)	
🦉 Volume size	5587.37 GB	
🦉 Free space	60.85 GB	
⊡…w OS Image(s)	259	
🔊 Windows 7	3	:
🔊 Windows 7 64	31	
🔊 Windows 8	4	
🔊 Windows 8 64	71	
🔊 Windows 10	8	
🔊 Windows 10 64	137	
MacOS X	4	
🖃 📕 Deployment statistics		
	Serveur Bleu	
	3	

Scroll down to display all Deployment statistics which include License information and all the deployments done per OS with their average deployment time:

Description	Value		
- Seployment statistics			
	Serveur Bleu		
	3		
	Thu, Jan 04, 2018		
	Tue, Sep 05, 2017		
	Wed, Jan 02, 2019		
	125		
	No (Max:Unlimited)		
🖃 🕕 🕕 Deployment done	613		
灯 Windows 7	3	00h17m59s	
灯 Windows 7 64	41	00h07m54s	
🔊 Windows 8	9	00h09m04s	
🔊 Windows 8 64	33	00h18m28s	
🔊 Windows 10	4	00h05m57s	
A Windows 10 64	486	00h17m27s	
MacOS X	4	00h29m43s	

If you expand "Deployment components version", you will obtain the list of all the components with their version number when applicable and their CRC:

Description	Value		
🗄 👘 🏀 Deployment components version			
DEPLOY64\BATCH.ini	-	1bed0f1c	
DEPLOY64\BurnInTest\2d.bitcfg	-	b9eb9ead	
DEPLOY64\BurnInTest\BITCertificateTemplate.html		9e789ea5	
DEPLOY64\BurnInTest\BITErrorClassification.txt		ba97cbd5	
DEPLOY64\BurnInTest\Battery_Capacity_Plugin.exe	1.0.0.3	820d0f3b	
DEPLOY64\BurnInTest\BurnInTest.url	-	ebc1d687	
DEPLOY64\BurnInTest\D3DCompiler_43.dll	9.29.952.3111	5201927b	
DEPLOY64\BurnInTest\D3DX9_43.dll	9.29.952.3111	4374aa0f	
DEPLOY64\BurnInTest\DirectIo32.sys		3b617ef3	
		c6169032	
DEPLOY64\BurnInTest\Endpoint.exe	8.0.1001.0	fff93fde	



Opening a database ("Open" operation)

After having installed and configured SDS, the first step will consist of opening the database created during the installation.

Browse for a new database

- 1. Click on « Database » tab 💶, then on the « Open » operation 😕, and select the « Browse for a new database »
 - option \bigcirc before clicking on the « Next > » button:

👹 SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔤 🎒 🚺		
Database	Reployment Suite Console	soft <mark>thinks</mark>
Operations 2		
Close Create	Welcome to SDS Console Database Wizard	
	This wizard will help you to choose the database you will working with.	
Database	If no database is selected this wizard will be started automatically at startup	
	What would you like to do?	
	Browse for a new database	
📄 Database	Opening an existing database	
Applications		
🚽 Drivers		
🤹 Images		
쵫 Smart Images		
BIOS		
Somputer	< Back Next >	Cancel
Profile/preset	Database wizard Image properties Smart Image properties Database information	
t= Utilities	Output: O Warning(s) - O Error(s)	A
🚱 Settings		•
Ready		NUM



Open Cancel

< Back

2. Browse for the MASTER.LOG file in the D:\REMOTEINSTALL\SDKDB installation folder in the tree-view

3. Check the « Load database during application start » option ⁵ to automatically open this database during the console startup, and then click on the « Open » button.

Note: Only databases that have not previously been opened by this installation of SDS should be opened with this option. Afterward, the location will be remembered in the history kept by SDS and will appear in the Open an Existing Database list.

Open an Existing Database

softthinks...

If you want to open a database that has been previously opened by this installation of SDS, use the "Opening an existing database » option ⁶ in the first screen, and select the database in the list shown:

🖉 Deployment	Suite Console			soft <mark>thinks</mark>
Welcome to SDS Conso Select one or more to database				
Description Database release 16.0.0	Location D:\REMOTEINSTALL\SD	Status Opened		
Select all Deselect all				
			< Back	Open Cancel



Closing a database ("Close" operation):

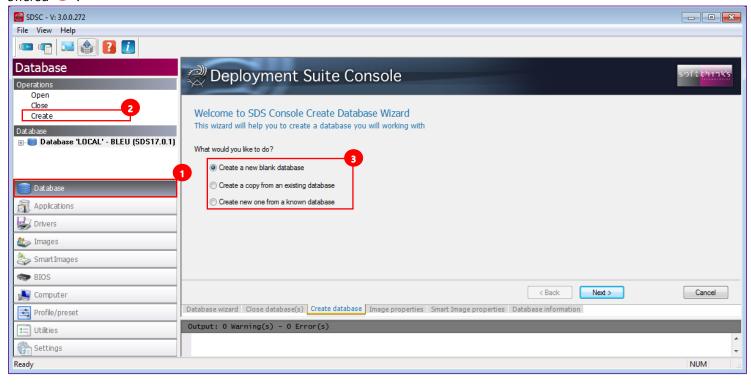
In order to close a database, click on the "Database" tab ¹, then on the "Close" operation ², and select the database you wish to close ³:

👹 SDSC - V: 3.0.0.272		
File View Help		
🔤 🖷 🚔 🚼 🚺		
Database Operations	Reployment Suite Console	soft
Open 2 Close <u>Create</u>	Close database(s) Select one or more opened database you want to	
Database	Database Location	3
⊪ 👅 Database 'LOCAL' - BLEU (SDS17.0.1)	Distribute Eccation Image: BLEU (SDS17.0.1) Z:\SDKDB	
		- 1
1		
📄 Database		
Applications		
Drivers		
i		
🧶 Images		
🌺 SmartImages	Select all Deselect all	
BIOS		
Computer		Ok Cancel
Profile/preset	Database wizard Close database(s) Image properties Smart Image properties Database information	
t= Utilities	Output: 0 Warning(s) - 0 Error(s)	
Settings	[30/07/2018 - 17:11:43] Starting database closer	•
Ready		NUM



Creating a database ("Create" operation):

To create a database, click on the « Database » tab ¹, then on the « Create » operation ², and select one of the options offered ³:



There are several ways to create a database for use with SDS:

- **Create a new blank database:** Only use this feature if you are starting completely fresh there is no need to do this if you have converted a database from the previous release of SDS.
- **Create a copy from an existing database:** This allows the System Administrator to browse for an existing database and copy it to this instance of SDS.
- **Create new one from a known database:** This allows the System Administrator to make a copy of a database from an entry in the database history, and copy it as a new database to work with. This only works for databases which have previously been opened by SDS.



Creating a blank database

1. After having selected "Create a new blank database" and clicked on "Next >", select the "root location" where you would like to create your database in the tree-view presented in the Create Database Wizard tab (right pane):

eate database wizard		
ect the destination folder for the new database you want to create		
- Administrateur		
Ce PC		
Bureau		
Documents		
E Images		
I Musique		
🖩 👆 Téléchargements		
🕖 🔚 Vidéos		
Disque local (C:)		
Nouveau nom (D:)		
🖶 🛃 RemoteInstall		
Boot		
Images		
Mgmt		
SDKDB		
Stores		
Tmp		
WdsClientUnattend		
9- BTP 413		
ription: Database quick description 5 Type: LOCAL 4		
pen the database at application startup		
pen the database when it is created		
7		
	< Back Next >	Cance

- 2. Specify a description⁵ for the database in order to identify it.
- 3. Indicate the type of database⁶. This can either be Local or Server.
- 4. Two options exist for how the database can be opened database. The database will automatically be created in a subdirectory called SDKDB in the location you choose. For example, you can map a drive letter to a network share which will hold the database (in this example, X:) and SDS will create the necessary files and folder structures under X:\SDKDB.

Hint – Large databases take a long time to load. If you are pointing to a server database this may increase the load time due to network traffic and connection speed. It may be desirable to turn off the option "Open the database at application startup" in these situations.

5. When the database is created successfully, the new database will be shown (See <u>Database</u> screenshot) in the "Database" portion of the interface (left side, Database object view) when it is loaded.

Applications

softthinks...

You can explore the applications you have added or imported by clicking on the "Applications" tab ¹, or directly on the "Applications" object in the tree-view ²:

repriedions object in the tree v				
SDSC - V: 3.0.0.272				
File View Help				
📼 🖙 🔤 🌰 🚺 🚺				
Applications	Deployment Suite Concele			softthinks
Operations	Deployment Suite Console			5710
Add application				
Add applications in bulk	DC Caracte Application and attice			
	DS Console Application properties			_
Export application(s)	ease select an application for information or edition capabili	ties		3
Database	escription	Language	OS	
🖃 🗐 Database 'LOCAL' - BLEU (SDS17 👝 🛛 31	Dmark	Multi	Multi	
Applications 7z	zipx64	Multi	Multi	
	zipx86	Multi	Windows XP - Windows 7 - Windows 8	
Tanga amd 🛛 🗧 🔤	md	Multi	Windows 7 - Windows 8	
	pplications	Multi	Multi	
⊕	heckDPK	Multi	Windows 8 - Windows 8 64	
n Others dt	hrome	Multi	Windows 7 64	
Printer and Scanners	umulative Update for Windows 10 (KB3081436)	Multi	Windows 10	
B Sound devices	umulative Update for Windows 10 for x64-based Systems (KB3081436)		Windows 10 64	
	RIVER-PACK: Latitude 10 - ST2e	Multi	Windows 8	
File File File File File File File File	lezilla	Multi	Multi	-
Database 🗸 🗸				+
	betails			
Applications				
Drivers				
	Priority: 50			
🦢 Images	Size: 204.07 MB			
SmartImages	Timportation date: 2015/06/24 - 13:45:46			
Smartimages	Beboot: No			
BIOS				
Computer			Next > 6	Cancel
19-37 ·			IVEAL >	Cancer
Profile/preset Data	base wizard Close database(s) Create database Image prop	erties Sma	art Image properties Application properties Database information	
Utilities Out	put: 0 Warning(s) - 0 Error(s)			
🚱 Settings				
Ready				NUM

When you select an application in the list ³, you will see all of its details below ⁴, including its path that you can open by clicking on the link ⁵.

Click on the "Next >" button 6, or double click on the application in the list, to edit its properties:

🧬 Deployi	ment Suite Cons	ole		l	soft <mark>thinks</mark>
SDS Console Ap Application informat	oplication properties				
Application(s)		Command line		7	
amd-catalyst-omega	a-14.12-with-dotnet45-win8.1-32bit.exe				
					8
Basic options					
Description	amd				
Article code					E
Date	24/06/2015				
Size (MB)	204.07				
Priority	50				
Language	Multi				
Supported OS	(Specific OS)				
Specific OS	Windows 7- Windows 8				
Advanced optio	ns				-
					* *
			< Back	9 Save	Cancel

- **Description:** Name of the selected application that you want to display during the applications selection (by default this is filled with the name of the folder containing the application). You can change this name to whatever you want.
- **Article code:** Unique identifier used to identify the application component / the part number used in the SPL file to designate the application. (This is not commonly used.)
- **Date:** Can be the date when the application is added into the database (so the current date by default) or the release date of the application.
- **Size:** Size of the application calculated from the file size.
- **Priority:** Allows you to install applications in a specific order (between 0 for the highest priority to 99 for the lowest one).
- **Language:** Language of the application ("Multi" to allow the application to be used for multiple languages, or else the name of the language supported).
- **Supported OS:** Either "Multi OS" (by default) to allow the application to work on all platforms, or else specific OS. When you uncheck "Multi OS", you can check all the OS supported in the dropdown list appearing in Specific OS line below:

Supported OS	specific OS	
Specific OS	Windows 7	~
Advanced options	✓ Windows 7 Windows 7 64	^
Specific OS	Linux Windows 2000	
	□ Windows XP □ Windows XP □ Windows XP Pro	~

Note: Make sure to uncheck Windows 7 if it is not going to be included as a supported OS as it is checked by default when you uncheck "Multi OS".

Scroll down to edit the "Advanced options":

Advanced options	
Туре	Undefined
Class	Communication devices _system components
File version	1
Delay 1 (sec)	0
Delay 2 (sec)	0
Always install	(No)
Audit install	(No)
CIS install	(No)
End user Install	V (Yes)
Wait child install	🔲 (No)
Copy to CD/DVD	V (Yes)
QFE	(No)
Reboot 1	🔲 (No)
Reboot 2	🗐 (No)
Delete application	(No)
Use all PNPs	🔲 (No)
Supported OS These are possible opera	ting system allowed to start the component
	< Back Save Cancel

- **Type:** Application package type (Undefined by default). Can be "Undefined", "Classic", "Driver", "Bundle", "Microsoft KB". The list of categories can be modified in <u>Application settings</u>.
- **Class:** Application class in which the application could be classified (Undefined by default). Can be "Undefined", "Communication devices & system components", "Input devices", "Printer and Scanners", "Display devices", "Sound devices", "Others". This list can be modified in <u>Application settings</u>.
- File version: Used to denote the version of the application package (1 by default)
- **Delay 1 (sec):** Delay in seconds before the application will execute (0 by default). This is useful for padding the application startup.
- **Delay 2 (sec):** Delay in seconds after executing the application and continuing to the next one (0 by default). This is useful for padding the application termination if some process are slow to complete after the application exits.
- Always install: Always install this application and automatically include in all downloads ("No" by default).
- Audit install: Turn on to install the application in audit mode otherwise it will be performed during mini-setup ("No" by default).
- CIS install: Application can be installed for Custom Image Solutions style images/downloads ("No" by default).
- End user install: Application is displayed in the Apps and Drivers Recovery interface ("Yes" by default).
- Wait for child install: Prevents ASEXEC from executing the parent process and proceeding if there are still child processes active. This is required for some installer engines that use child processes ("No" by default).
- **Copy to CD:** Copy the application to the Apps and Drivers Recovery CD. Choose this option if the application will be delivered to customer with original installation media ("Yes" by default).
- **QFE:** If the application being installed is a QuickFixEngineering application (aka Hotfix), use this option ("No" by default). This option adds 1000 added to the Priority value (normally 0-99) ensuring that QFEs are grouped at the very end of application installation order. All QFEs are installed in the same grouping ordered by priority after all standard applications have been installed.
- **Reboot 1:** Force a reboot after the application is installed by ASEXEC during factory installation or full system recovery ("No" by default)
- **Reboot 2:** Force a reboot after the application is installed using Apps and Drivers Recovery interface ("No" by default)
- **Delete applications:** Delete the application package once installed ("No" by default)
- Use all PNPs: Tie an application to hardware device(s) ("No" by default). If the specified hardware is not present, the application will not be installed.

Click on the "Save" button 9 to save your modifications.



Adding an application ("Add application" operation)

Adding an application into the SDS database allows you to selectively install it onto a system being deployed with SDS. **There should be only 1 application per folder.**

- 1. Click on « Applications » tab **1** or "Applications" object **1** in the Database tree-view
- 2. Click on « Add application » operation 2
- 3. Select the folder containing the application to add in the browser \bigcirc
- 4. Select the application installer
 in the list. This list may contain several files, for example, if the application is a twopart install, there may be additional executables in the list which may be selected. You can select / unselect all elements thanks to the 2 buttons on the right of this list
- 5. Check the "Include all subdirectories" option ⁶ if there are subfolders inside your source folder that are required by the application
- 6. Click on the "Next >" button

👹 SDSC - V: 3.0.0.272		
<u>File View H</u> elp		
📼 🖷 🔤 🌰 🚺		
Applications	Reployment Suite Console	soft <mark>thinks</mark>
Operations 2		
Add application		
Add applications in bulk Delete application(s)	SDS Console Add Application Wizard	
Export application(s)	Please select folder & application(s) you want to add.	
Database		3
Database 'LOCAL' - BLEU (SDS17.0. n)	E Bureau	-T
🚡 🗊 Communication devices & system comp		=
😥 🌍 Display devices	B → 4 OS (C:)	
😥 🏐 Input devices	🕒 👝 Disque local (D:)	
i	Disque amovible (E:)	
🖶 🗐 Printer and Scanners	e 😴 reminst (\\192.168.2.17) (W:)	
• Sound devices	⊕ 😴 VERT (\\192.168.2.1) (X:)	
ia	⊕ 🙀 reminst (\\192.168.2.17) (Y:)	
🗄 🚟 Drivers 🖶 🚣 Images	iii	
tinges 	🗐 👽 Réseau	
BIOS	Panneau de configuration	-
Computer	Application available	
<pre></pre>	Population available	
Database	V ZZ C. Vriezilia_3.33.1 Wino4-setup_bundled.exe ;	
Applications		
🔛 Drivers		
🦢 Images		
SmartImages		
BIOS	Include all subdirectories	
🔊 Computer		
式 Profile/preset		
;≠=_ Utilities	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel
Settings	Database wizard Close database(s) Create database Image properties Smart Image properties Application: amd Add application Database info	
Ready		NUM

7. Specify the command line arguments to install your application silently (check the installation instructions and readme files for the applications to find the application specific Silent Install switches)
 7 and fill the other fields described previously
 (for each of them you have a description at the bottom) before clicking on the "Next >" button

Deployι	ment Suite	Console		soft <mark>thinks</mark>
SDS Console Ad Application informat	d Application Wiza	rd		
Application(s)		Command line		7
E:\FileZilla_3.35.1_	win64-setup_bundled.exe	/silent /install		
Basic options				
Description	Filezilla			
Article code				
Date	31/07/2018			
Size (MB)	4622.75			
Priority	50			
Language	Multi			
+ Supported OS	Multi OS			
Advanced optio	ns			
Description Name of the selecte	d application(s)			Å. T
			< Back Next >	Cancel

8. The console will copy the application folder contents:

softthinks...

Reployment Suite Console		soft <mark>thinks</mark>
SDS Console Add Application Wizard Please wait the end of the process.		
Adding application 'Filezilla' to database 'BLEU (SDS17.0.1)' in 'Z:\SDKDB' folder		
Copying file 'E:\FileZilla_3.35.1_win64-setup_bundled.exe' to database		
	< Back	Finish Cancel

9. A message will indicate you that the application has successfully been added to the database at the end of the process:

softthinks...

neployment Suite Console		soft
SDS Console Add Application Wizard Please wait the end of the process.		
The application was successfully added to all selected database!		
	< Back	Finish Cancel

SDS allows to copy bundles to the system with deployment through a profile according to computer PNPs. When a profile with bundles is used, if the driver PNP detection is switched off, the bundle will be forced to be copied according to the profile. This will also allow using a same profile and choosing if the bundle must be downloaded or not.

New setting added to selector.ini (profile) in the [Bundle] section to allow forcing PNP bundle detection: [Bundle]

NoPNPOverSel=0 -> let bundle detection occurring to copy only matching bundle NoPNPOverSel=1 -> block PNP detection and force bundle section to be copied to the User Partition



Adding several applications ("Add applications in bulk" operation)

You can also add all of the drivers in at one time.

- 1. Click on "Applications" tab or "Applications" item in the database tree-view 👥
- 2. Click on the "Add applications in bulk" operation 2
- 3. Select the root folder where all individual applications folders are located ³
- 4. Select which ones you want to import
- 6. Click on the "Next >" button 6

TODO: Replace screenshot:

SDSC - V: 3.0.0.272		- • ×
File View Help		
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Drivers	C Deployment Suite Console	soft <mark>thinks</mark>
Operations		
Add driver		
Add drivers in Duik	SDS Console Import drivers Wizard	
Analyze driver(s) Delete driver(s)	Please select the root folder where all individual drivers folder are located.	
Export driver(s)	Bureau	3
Inject driver(s)	in a solution in the solution of the solution	~
Database	GePC	
Database 	B Bibliothèques	
Applications	B PXE_SDSC (F:)	
	🔬 🌐 Réseau	
in ages	🛓 🔤 Panneau de configuration	
🛓 🚠 Smart Images	🔊 Corbeille	
BIOS		Y
	Manufacturer Type Folder INF file(s)	
ia- 📑 Profile/preset	□ Dell Inc HIDClass F:\90M6T 1	
•	SMSC Net F:/Windows8.1-x64 1	
Database		
Applications		
🔛 Drivers		
M Imagos	Driver OS version	
and the second s	+ Supported OS Multi OS	
🌺 SmartImages		
SIOS	6	5
Normputer	< Back Next >	Cancel
	Application properties Add driver Database information Delete driver(s) Boot image settings Export driver(s) Computer: < Owner Last Name:	> Delete com
🛁 Profile/preset	Output: 17 Warning(s) - 0 Error(s)	
; Utilities		.10.0.0.67
Settings	<pre>[17/08/2018 - 11:27:07] Starting to edit driver: Dell Wireless 1515 Wireless-N Adapter - Version: 06/14/2012 [17/08/2018 - 11:52:35] Starting driver addition wizard</pre>	*
		P
Ready		NUM

7. The wizard alerts you once all the driver files have been copied into SDS Database



Deleting application(s) ("Delete application(s)" operation)

In order to delete one or more applications,

- 1. Click on "Applications" tab 💶
- 2. Click on "Delete application(s)" operation 2
- 3. Select the application(s) you want to remove from the database in the list on the right ³. If you don't see an application recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button

SDSC - V: 3.0.0.272				
File View Help				
📼 👘 💶 🍐 🚺				
Applications	Deployment Suite Console			soft thinks
Operations				
Add application				
Delete application(s)	Welcome to SDS Console Delete Application			
Export application(s))	Please select application(s) to delete			
Database			-	3
🖃 😂 Database 'LOCAL' - BLEU (SDS17.0.1)	Description	Language		OS
🖨 🚮 Applications	3Dmark	Multi	2015/06/24 - 14:35:44	
🖶 🌍 Communication devices & system comp	7zipx64	Multi	2014/10/13 - 10:28:00	
🖶 🌍 Display devices	7zipx86	Multi		Windows XP - Windows 7 - Windows 8
⊞ 🗊 Input devices	amd and	Multi		
	applications CheckDPK	Multi Multi	2018/02/01 - 17:19:23	Multi Windows 8 - Windows 8 64
🖶 🌍 Printer and Scanners		Multi	2015/02/19 - 13:29:57 2014/11/24 - 10:50:45	
⊕	Cumulative Update for Windows 10 (KB3081436)	Multi	2014/11/24 - 10:50.45	
	Cumulative Update for Windows 10 (K05001450)	Multi	2015/08/21 - 10:14:05	
🖶 🚎 Drivers	DRIVER-PACK: Latitude 10 - ST2e	Multi	2016/06/17 - 13:30:37	
🖶 🚢 Images		Multi	2014/10/13 - 10:31:00	
🖶 🚵 Smart Images	Flash Player x86 et x64 v11.7.700.224	French	2015/02/19 - 13:29:57	
i BIOS	FurMark 1.13.0.0	Multi	2015/02/19 - 13:29:57	Windows 7 - Windows 7 64 - Windows 8 - Windows 8 64
	Gimp	Multi	2014/10/13 - 10:34:23	Multi
ia- 🚉 Profile/preset	GoogleChrome	Multi	2014/10/13 - 10:29:15	Multi
✓ III ►	IE10-Windows6.1-KB3093983-x64.msu	Multi	2015/09/22 - 04:28:29	Windows 7 64
Database	IE10-Windows6.1-KB3093983-x86.msu	Multi	2015/09/22 - 04:21:30	
1	IE7-WindowsXP-KB3093983-x86-Embedded-ENU	English	2015/09/21 - 19:56:23	
Applications	IE7-WindowsXP-KB3093983-x86-Embedded-FRA	French	2015/09/19 - 10:00:03	
Drivers	IE8-Windows6.0-KB3093983-x64.msu	Multi	2015/09/16 - 23:31:39	
	E8-Windows6.0-KB3093983-x86.msu	Multi	2015/09/16 - 23:31:38	
all and the second seco	IE9-Windows6.0-KB3104002-x64.msu IE9-Windows6.0-KB3104002-x86.msu IE9-Windows6.0-KB3104002-x86.msu	Multi Multi	2015/11/13 - 01:20:17 2015/11/13 - 01:20:15	_
🧽 Smart Images			2019/11/13-01/2019	
BIOS				< Back Next > Cancel
🔊 Computer	Database wizard Close database(s) Create database Image properti	es Smart i	Image properties App	lication: amd Database information Delete application(s)
Profile/preset	Output: 12 Warning(s) - 1 Error(s)			
≠= Utilities				
🚱 Settings	< III			
Ready				NUM

5. The wizard will confirm you that your applications have been deleted once the process has completed.

Note: Deletion is permanent. There is no method to undo a delete. Be careful when selecting applications for deletion and review them before continuing.



Exporting applications ("Export application(s)" operation)

In order to copy applications from the current server database to another server database, you have the ability to export applications.

If you need to copy applications to another database on the same server we strongly recommend you use drag & drop between the 2 databases you have opened.

- 1. Click on "Applications" tab 💶
- 2. Click on "Export application(s)" operation 2
- 3. Select the applications you want to export from the list ³. If you don't see an application recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button

SDSC - V: 3.0.0.272			
File View Help			
📼 🖷 🚨 🌒 🚺			
Applications	Deployment Suite Console		soft thanks
Operations Add application Delete application(s) Export application(s) Database Display devices Diplay devices Diplay devices Divers Divers Divers Drivers Database Drivers SmartImages SmartImages </th <th>Welcome to SDS Console Export Application Wizar Please select application(s) to export Description 3Dmark 7zipx64 7zipx86 amd applications CheckDPK chrome Cumulative Update for Windows 10 (KB3081436) Cumulative Update for Windows 10 for x64-based Systems (KB3081436) DRIVER-PACK: Latitude 10 - ST2e Flezilia Rash Player x86 et x64 v11.7.700.224 FurMark 1.13.0.0 Gimp GoogleChrome IE10-Windows6.1-KB3093983-x64.msu IE7-Windows6.1-KB3093983-x64.msu IE7-Windows8.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu</th> <th>Language Multi Multi Multi Multi Multi Multi Multi Multi</th> <th>3</th>	Welcome to SDS Console Export Application Wizar Please select application(s) to export Description 3Dmark 7zipx64 7zipx86 amd applications CheckDPK chrome Cumulative Update for Windows 10 (KB3081436) Cumulative Update for Windows 10 for x64-based Systems (KB3081436) DRIVER-PACK: Latitude 10 - ST2e Flezilia Rash Player x86 et x64 v11.7.700.224 FurMark 1.13.0.0 Gimp GoogleChrome IE10-Windows6.1-KB3093983-x64.msu IE7-Windows6.1-KB3093983-x64.msu IE7-Windows8.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu IE3-Windows6.0-KB3093983-x64.msu	Language Multi Multi Multi Multi Multi Multi Multi Multi	3
🐲 BIOS	Application properties Database information Export application(s)		
Profile/preset	Output: 2 Warning(s) - 0 Error(s)		
tilities	[31/07/2018 - 11:24:32] Updating database component	informat	cion, done.
🍖 Settings	٠ [الا		>
Ready			NUM



- 5. Specify the target folder⁵ where the selected application will have to be exported in a ZIP file
- 6. Specify the language ⁶ or check the option "Keep it as Multilanguage"

Reployment Suite Console	soft <mark>thanks</mark>
Welcome to SDS Console Export Application Wizard Please select export options Bureau C Ce PC Documents Discussed Musique C define Musique C define Musique C define C define	Language 6 □ ⊕ English 0 □ ⊕ French 0 □ ⊕ Italian 0 □ ⊕ Portuguese 0 □ Dutch ✓ ✓ Keep as multilanguage ✓
	< Back Next > Cancel

Note: Please note that in order to avoid corruption during copy USB keys are not allowed as a target and don't appear in the tree-view.

7. After having clicked on "Next >" button $\mathbf{7}$, the copy of your application begins:

< Rack	Finish Cancel
	KBack

8. The wizard alerts you when the copy is completed



Importing application(s) ("Utilities\Import SDSC Package")

To import an application package that was previously created,

- 1. Click on « Utilities » tab **1**
- 2. Click on « Import SDSC Package » operation 2
- 3. Select the application package you want to import \bigcirc
- 4. Click on the "Next >" button

👹 SDSC - V: 3.0.0.272		
File View Help		
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Utilities	Reployment Suite Console	soft <mark>thinks</mark>
General		
Create deployment USB stick; Import SDSC package		
Update database components	SDS Console Import Package Wizard	
USB stick report	Please select the package to import	
Network	Description	
Remote desktop	BE Creator Author: SDK V2	
Wake on LAN	RIS Name: Multi applications package	
Deployment files	Type: Application	
Create SPL	Definition of the second secon	
Database	winhex-17.3	
Applications	WinTEST	
	Export_SDK_2016_312_13-14-26_ENG.ZIP	
Drivers		
all and the second seco	Delete identical database component before importing (Same Part Number)	
Smart Images	Import as a new component if the folder already exist (otherwise overwrite)	
BIOS	< Back Next > 4	Cancel
Lomputer	Application properties Database information Export application(s) Import package	
Profile/preset	Output: 2 Warning(s) - 0 Error(s)	
👥 Utilities	[31/07/2018 - 11:24:32] Updating database component information, done. [31/07/2018 - 11:24:48] Selected application supporting multilanguage, you could select the export la	
💮 Settings	[31/07/2018 - 11:38:09] Starting package import wizard	
Ready		NUM
neauy		NUM

5. The wizard will alert you when the copy is completed:

Reployment Suite Console		soft thinks
SDS Console Import Package Wizard Please wait the end of the process.		
The package was successfully added to all selected database!		
	< Back	Finish Cancel

Drivers

In the same way as for Applications, you can explore the drivers you have added or imported by clicking on the "Drivers" tab , or directly on the "Drivers" object in the tree-view 2:

- , of directly of the Divers					
👹 SDSC - V: 3.0.0.272					
File View Help					
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Drivers	Deployment Suite Concole				softthinks
Operations	🖉 Deployment Suite Console				571001113
Add driver					
Add drivers in bulk	CDC Consula Delum annual las				
Analyze driver(s)	SDS Console Driver properties				
Delete driver(s)	Please select driver for information or edition capabilities				3
Export driver(s)	Description	Language	OS	Signed Article code	
Inject driver(s)	Dell Wireless 1515 Wireless-N Adapter - Version: 06/14/2012,10.0.0.67	Multi	Windows 7 64 - Windows	Yes 111111111	1111111 2014/09/30 15:50:36
Database	ALPS Integrated Bluetooth Device - Version: 06/21/2006,6.2.9200.16420		Windows 7 64 - Windows	Yes	2014/09/30 16:57:26
Database 'LOCAL' - BLEU (SDS17.0.1)	-		Windows 7 64 - Windows	Yes	2014/09/30 17:07:51
Applications	Intel(R) 82579LM Gigabit Network Connection - Version: 12/21/2010,11		Windows 7 - Windows 7 64	Yes	2014/11/25 11:25:45
			Windows 7 64 - Windows	Yes	2014/11/25 13:58:59
E Divers	Intel(R) 82579V Gigabit Network Connection - Version: 12/21/2010,11.8		Windows 7 64	Yes	2014/11/25 14:27:08
Network	Realtek PCIe FE Family Controller - Version: 04/21/2011,7.044.0421.2011		Windows 7 64 Windows 7	Yes	2014/11/25 14:27:08 2014/11/25 14:54:54
Intel Corporation			Windows 7 Windows 7 64	Yes	
🚋 🔑 Realtek Semiconductor	Realtek PCIe FE Family Controller - Version: 04/21/2011,7.044.0421.2011				2014/11/25 14:55:40
Dell Wireless 1515 Wireless-N Ada		Multi	Windows 8 64	No	2015/02/16 14:22:00
ALPS Integrated Bluetooth Device		Multi	Windows 10 64	Yes	2016/06/02 09:55:59
Qualcomm Atheros AR8132 PCI-E		Multi	Windows 8 64 - Windows	Yes	2016/06/07 14:25:51
ASIX AX88178 USB2.0 to Gigabit B	Bluetooth AVRCP Device - Version: 06/21/2012,8.0.0000.0200	Multi	Windows 7 64 - Windows	Yes	2014/09/30 16:45:09
······································	Standard PS/2 Port Mouse - Version: 06/21/2006,6.1./600.16385	Multi	Windows 7 64 - Windows		2014/10/01 09:10:59
	Realtek PCIE CardReader - Version: 06/13/2012,6.1.8400.28121	Multi	Windows 7 64 - Windows	Yes	2014/09/30 17:08:53
ia	Intel(R) Desktop/Workstation/Server Express Chipset SATA AHCI Contr	Multi	Windows 7 64 - Windows	Yes	2014/09/30 17:22:41
🗄 🗐 Sound/Multimedia	IDE Channel - Version: 06/21/2006,6.2.9200.16384	Multi	Windows 7 64 - Windows	Yes	2014/09/30 17:05:39
⊕…í System	IIIIIIIIIntel(R) C600 series chipset SATA AHCI Controller - Version: 09/03/	Multi	Windows 7 64	No	2015/05/20 14:47:48
🟚 🖓 USB	Intel(R) 8 Series/C220 Chipset Family SATA AHCI Controller - Version: 0	Multi	Windows 7 64 - Windows	No	2015/08/27 13:29:06
	AMD SATA Controller - Version: 03/29/2015,1.2.001.0402	Multi	Multi	Yes	2017/07/20 10:47:29
🗄 💒 Images	AMD-RAID Bottom Device - Version: 11/08/2016.8.1.0.00026	Multi	Multi	Yes	2017/07/20 11:22:52
🔄 🚠 Smart Images	AMD-RAID Controller [storport] - Version: 11/08/2016,8.1.0.00026	Multi	Multi	Yes	2017/07/20 11:23:08
		Multi	Multi	Yes	2017/08/11 11:38:42 🚽
i i i i i i i i i i i i i i i i i i i					
					F
	Details				
۰ III ا	Path: Z:\SDKDB\DRVINET\MUL\NET000000				
Sea Database					
	Manufacturer: (Standard system devices)NTamd64				
applications	PNP available: 3818 item(s)				
1	Importation date: 2014/09/30 15:50:36				
🛃 Drivers	Deactivated: Partially				
~~~					
🦢 Images					
🎭 Smart Images				Next >	6 Cancel
STATES	Driver properties Application properties Database information Com	puter: <0v	vner Last Name> Delete co	mputer(s)	
🔊 Computer	Output: 17 Warning(s) ~ 0 Error(s)				
- Dur file lann anh	[16/08/2018 - 15:55:23] Warning: An image object fro [16/08/2018 - 15:55:23] Warning: An image object fro	m folder	Z:\SDKDB\RIS\RIS_IN	1990029' was mod	ified outside this SDK inst ified outside this SDK inst
式 Profile/preset	[10/08/2018 - 13:33:25] Warning, All mage object fro			nce -> Ketreshi	ng the interface!
Profile/preset       Image: state	<pre>[16/08/2018 - 16:41:00] Warning: the database was mo [16/08/2018 - 16:42:37] Warning: the database was mo</pre>	dified o	outside this SDK insta	unce -> Refreshi	ng the interface!
≹⊒ Utilities	[16/08/2018 - 16:41:00] Warning: the database was mo [16/08/2018 - 16:42:37] Warning: the database was mo [16/08/2018 - 16:54:17] Warning: the database was mo [16/08/2018 - 17:03:22] Warning: the database was mo	dified o dified o	outside this SDK insta outside this SDK insta	unce -> Refreshi unce -> Refreshi	ng the interface! ng the interface!
tilities	[16/08/2018 - 16:41:00] Warning: the database was mo [16/08/2018 - 16:42:37] Warning: the database was mo [16/08/2018 - 16:54:17] Warning: the database was mo	dified o dified o	outside this SDK insta outside this SDK insta	unce -> Refreshi unce -> Refreshi	ng the interface! ng the interface!

When you select a driver in the list ³, you will see all of its details below ⁴, including its path that you can open by clicking on the link ⁵.

Click on the "Next >" button⁶, or double click on the driver in the list, to eventually uncheck some PNPs⁷ in order to avoid the download of this driver during deployment in automatic mode, and edit its properties⁸:

SDS Console Dri Driver information	river properties	
Driver properties	25	
Description	LAN7500 USB 2.0 to Ethernet 10/100/1000 Adapter - Version: 06/04/2013,2.2.2.4	
Article code		
Comment		
Language	Multi	
Туре	Network	
Signed	☑ (Yes)	
+ Supported OS	Multi OS	
	ted	
Devices support	LAN7500 USB 2.0 to Ethernet 10/100/1000 Adapter	
And a lot of the lot o	LANZEDE LIER D. 0. to Eth and the 10/100/1000 Advertise	
Devices support	LAN7505 USB 2.0 to Ethernet 10/100/1000 Adapter	
And a local division of the local division o	LAN7505 USB 2.0 to Ethernet 10/100/1000 Adapter	8

- **Description:** A text description of the driver that will be displayed in the database and by the Apps and Drivers Recovery interface. You can modify this as needed.
- **Article Code:** The part number used in SPL files to designate the driver (Not commonly used). This code should be unique regarding the database items in order to identify this component.
- **Comment:** Additional field to provide info on the driver.

sつ1**tthinks**…

- Language: Language supported by the driver. Select "Multi" for multilanguage driver.
- **Type:** The class of the driver (mass storage, network, video, etc) from a list created in the Settings tool.
- **Signed:** Check this box if the driver is digitally signed. Note: If the driver is not already signed, checking this box will not sign it.
- **Supported OS:** Select "Multi OS" to allow the driver to be used with any OS, or else "Specific OS" and check the OS supported in the drop-down list below:

E	Supported OS	Specific OS	
	Specific OS	Windows 10- Windows 10 64	-
E	Devices supported	Windows Server 2008 64	*
	Devices	Windows 8     Windows 8 64     Windows 10	
	Devices	Windows 10	
		MacOS X	Ŧ

• Devices Supported: Shows the description of the devices from the INF file.

Click on the "Save" button 9 to save your modifications.



#### Adding a driver ("Add driver" operation)

To add a driver to the database, for example a network driver required to boot on a specific platform, you first need a folder containing the driver INF, CAT and other associated files for the driver. If the driver is packaged in a compressed format, it must be expanded first.

If you need to add several drivers at a one time, you should use the operation "Add drivers in bulk" instead.

- 1. Click on the "Drivers" tab or the "Drivers" item in the Database tree-view  $\bigcirc$
- 2. Click on the "Add driver" operation 2

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File View Help		
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Drivers	Reployment Suite Console	soft <mark>thinks</mark>
Operations 2		
Add drivers in bulk	SDS Console Add Driver Wizard	
Analyze driver(s)	Please select the folder where the driver is located, then devices you want to add.	
Delete driver(s)		
Export driver(s) Inject driver(s)	Windows8.1-x64	
	zh-cn zh-hk	
Database		
Applications	SDKLicense	
Drivers	a 🙀 🦮 Bibliothèques	
🕀 🚢 Images	mport all subdirectories files to database(s)	
🕀 🚵 Smart Images		
BIOS	E→ V LAN7500 USB 2.0 to Ethemet 10/100/1000 Adapter	^ 🗹
ii Computer i Computer i Trofile/preset		
· · · · · · · · · · · · · · · · · · ·		
	Let all existing drivers as it is	
Dat abase	O Deactivate all existing drivers in database	
Applications	Check for existing driver and select manually the driver you want to deactivate	
Drivers		
🦢 Images		
🧽 Smart Images		
BIOS	< Back Next >	Cancel
Leg Computer		
Profile/preset	Application properties Add driver Database information Delete driver(s) Boot image settings Export driver(s) Computer: < Owner Last Name:	
	Output: 17 Warning(s) - 0 Error(s)	
t= Utilities	<pre>[17/08/2018 - 11:27:07] Starting to edit driver: Dell Wireless 1515 Wireless-N Adapter - Version: 06/14/2012 [17/08/2018 - 11:52:35] Starting driver addition wizard</pre>	,10.0.0.67
🚱 Settings		• •
Ready		NUM

- 3. Select the folder where the driver you want to add is located  3
- 4. Check the option "Include Subdirectories" if the source folder contains subdirectories that are required to install the driver properly. Some vendors create their driver packages with the INF file in the root directory and binaries under a subfolder based on the compatible OS name of the driver.
- 5. Select the individual PnP IDs to associate to the driver (or the topmost value to include all of the IDs) 5
- 6. Choose what you want to do with existing drivers matching the selected PnP IDs⁶:
  - Let all existing drivers as it is: This option adds this driver and keeps any existing drivers using the same PnPIDs.
  - **Deactivate all existing drivers in database:** The new driver supercedes the existing drivers with the same PnP IDs.
  - Check for existing driver and manually select the driver you want to deactivate: This option allows the Administrator to selectively replace the driver on a PnP ID basis.



7. Review and update the Driver Properties before clicking on "Next >":

reployr 🖉	nent Suite Console	soft thinks
SDS Console Add	I Driver Wizard	
Driver properties		^
Description	LAN7500 USB 2.0 to Ethernet 10/100/1000 Adapter - Version: 06/04/2013,2.2.2.4	
Article code		
Comment		
Language	Multi	
Туре	Network	
Signed	☑ (Yes)	
+ Supported OS	Multi OS	
Devices supporte	d	T.
Devices	LAN7500 USB 2.0 to Ethernet 10/100/1000 Adapter LAN7505 USB 2.0 to Ethernet 10/100/1000 Adapter	
Supported OS These are possible op	erating system supported by this driver. (Most of driver are not multi OS)	0
	< Back Next >	Cancel

8. The wizard alerts you once all the driver files have been copied into SDS Database:

Deployment Suite Console		soft thinks
SDS Console Add Driver Wizard Please wait the end of the process.		
The driver was successfully added to all selected database!		
	< Back	Finish Cancel



#### Adding several drivers ("Add drivers in bulk" operation)

You can also add all of the drivers in at one time.

- 8. Click on "Drivers" tab or "Drivers" item in the database tree-view 👥
- 9. Click on the "Add drivers in bulk" operation 2
- 10. Select the root folder where all individual drivers folders are located  $\bigcirc$
- 11. Select which ones you want to import
- 12. Specify the driver OS version  5
- 13. Click on the "Next >" button 6

SDSC - V: 3.0.0.272		- • •
File View Help		
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Drivers	Deployment Suite Console	soft <mark>thinks</mark>
Operations		
Add driver 2 Add drivers in bulk	SDS Console Import drivers Wizard	
Analyze driver(s)	Please select the root folder where all individual drivers folder are located.	
Delete driver(s) Export driver(s)	Bureau	3
Inject driver(s)	in au suitau intrateur	~
Database	E Ce PC	
🖃 🗐 Database 'LOCAL' - BLEU (SDS17.0.1)	Bibliothèques	
Applications	Reseau	
i i i i i i i i i i i i i i i i i i i	Panneau de configuration	
🕢 🏠 Smart Images	Corbeille	~
i∰∰ BIOS		
Profile/preset	Manufacturer Type Folder INF file(s)	Ť
4	☑ Dell Inc         HIDClass         F:\90M6T         1           ☑ SMSC         Net         F:\Windows8.1x64         1	
📄 Database		
Applications		
Drivers		
	Driver OS version	
tmages	🛨 Supported OS 🛛 🗹 Multi OS	
SmartImages		
BIOS	6	
💫 Computer	< Back Next >	Cancel
Profile/preset	Application properties         Add driver         Database information         Delete driver(s)         Boot image settings         Export driver(s)         Computer: <0wner Last Name>	Delete com
	Output: 17 Warning(s) - 0 Error(s)	
t= Utilities	[17/08/2018 - 11:27:07] Starting to edit driver: Dell Wireless 1515 Wireless-N Adapter - Version: 06/14/2012,1 [17/08/2018 - 11:52:35] Starting driver addition wizard	L0.0.0.67
E Settings		F
Ready		NUM

14. The wizard alerts you once all the driver files have been copied into SDS Database



#### Adding Driver Packs

Driver packs are recent addition to our software that will deploy a small database of drivers that matches the model of the unit. This will prevent any driver version mismatch issues.

Driver packs are setup as special application in the system. During the deployment process, once the system reaches the point of doing driver injection, it will check to see if there is a driver pack that matches the model. If there is, it will use the driver pack rather than the normal driver database.

Certain Manufacturers provide driver packs for their computers. Dell, HP and Lenovo do for sure and these can be reached by clicking on the following links:

- Dell : <u>http://en.community.dell.com/techcenter/enterprise-client/w/wiki/2065.dell-command-deploy-driver-packs-for-enterprise-client-os-deployment</u>
- HP : <u>http://ftp.hp.com/pub/caps-softpaq/cmit/HP Driverpack Matrix x86.html</u> (32 Bit) <u>http://ftp.hp.com/pub/caps-softpaq/cmit/HP Driverpack Matrix x64.html</u> (64 Bit)
- Lenovo : <u>https://support.lenovo.com/us/en/documents/ht074984</u>

Here are the steps to add driver packs to the SDS database:

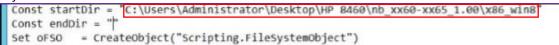
- 1. Find the model of computer that you are looking for and download that driver to a folder on your server.
- 2. Extract the Driver Pack to a folder and then copy the full path of that folder:

🚖 Favorites	Name	Date modified	Туре	Size
E Desktop	🗼 driver - audio	10/16/2017 12:34	File folder	
bownloads 🔒	L driver - chipset	10/16/2017 12:34 _	File folder	
3 Recent places	L driver - graphics	10/16/2017 12:34 _	File folder	
	) driver - keyboard, mouse and input devic	10/16/2017 12:34 _	File folder	
libraries	📕 driver - network	10/16/2017 12:34 _	File folder	
Bocuments	🐌 driver - storage	10/16/2017 12:34 -	File folder	
🛃 Music	Readme.txt	7/19/2013 2:51 PM	Text Document	1 K

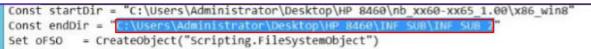
3. You will be given a driver pack folder with files that are needed for creating driver packs. Open that folder and right click on FindINFused for edits.vbs and select EDIT:

5	Name	Date modified	Туре	Size
p	DRVInstaller.cmd	12/5/2016 10:39 A	Windows Comma	0 KB
iads	FindINFOriginal.vbs	12/5/2016 10:43 A	VBScript Script File	2 KB
places	FindINFused for edits.vbs	9/15/2016 10:46 PM	VBScript Script File	2 KB
	OnlineDriverScavenger.cmd	11/25/2015 11:06 _	Windows Comma	6 KB
ents	Size: 5.45 KB	Command Script 11/25/2015 11:06 AM		

4. Paste the address that you copied for the Extracted Driver Pack Folder into the First line of FindINFused for edits.vbs that says Const startDir = "...:



5. In the folder that you extracted your Driver Pack, create a folder called INF SUB and then inside there, create a folder called INF SUB 2. Then copy the path of INF SUB 2 and paste it into the Second line of FindINFused for edits.vbs that says Const endDir ="...:



6. Save and Close the FindINFused for edits.vbs file then double-click on it to run it.

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7. Verify that the files are in the folder INF SUB. (The INF SUB 2 Folder will remain empty):

🗼 🕨 HP 846	0 > INFSUB >				~ C	Search I
	Name	Date modified	Туре	Size		
	INF SUB 2	10/17/2017 10:26	File folder			
ds	INF SUB 2driver - audioidtsp59291	10/17/2017 10:18	File folder			
aces	INF SUB 2driver - chipsetintelsp58738MEI	10/17/2017 10:18	File folder			
	INE SLIB 2 driver - chinsetintelsp58738SOL	10/17/2017 10:18	File folder			

8. Go to the D:\RemoteInstall\SDKDB directory, rename the existing DRV folder to DRVold and create a new DRV folder:

ites	Name	Date modified	Туре	Size
ctop	ADF	9/29/2017 4:47 PM	File folder	
nloads	APPS	8/31/2017 2:35 PM	File folder	
ent places	BACKUPLOG	8/31/2017 2:22 PM	File folder	
	EIOS	8/31/2017 2:35 PM	File folder	
ies	Bootdisk	8/31/2017 2:25 PM	File folder	
uments	L DEPLOY	8/31/2017 2:22 PM	File folder	
ic	L DEPLOY64	9/11/2017 10:52 A	File folder	
ires	beploy64- SDS4MAR	9/11/2017 1:34 PM	File folder	
OS	DIFF	10/16/2017 3:42 PM	File folder	
	L DRV	10/16/2017 3:41 PM	File folder	
outer	DRVold	8/31/2017 2:36 PM	File folder	



#### 9. Open the SDS Management Console.

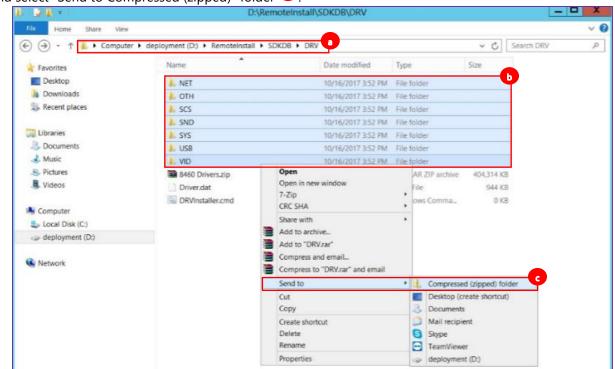
- a. Click on "Drivers" tab
- b. Click on the "Add drivers in Bulk" operation **b**
- c. Browse to the INF SUB folder that you created and click on it 🖸
- d. Make sure all of the boxes are checked in the lower right screen
- e. Click on the "Next>" button 🖸

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File View Help					
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Drivers	C Deployment	Suite Console			softthinks
Operations		Caree Corrisore			
Add driver					
Add drivers in bulk	SDS Console Import dri	vers Wizard			
Analyze driver(s)	Please select the root folder v	here all individual drivers folder a	re located.		
Delete driver(s) Export driver(s)					C
Inject driver(s)	DEPLOY64				T
	Driver Packs     HP 8460				
Database	E-1 INF SUB				
E SDS17.0.1)	The second second	audioidtsp59291Win8			
		hipsetintelsp58738MEI			
Drivers		hipsetintelsp58738SOL			
🕀 🚢 Images	INF SUB 2driver - g	graphicsamdsp59440DisplayW8_INF			
🖅 🚵 Smart Images	- INF SUB 2driver - g	graphics amd sp 59440 HDMIW8			~
E Computer	Manufacturer Type		Folder		^
ia			C:\Users\Administrator\Desktop\HP 8460\INF SU	UB\INF SUB 2driver - keyboard, mouse	and input devic
۲ <u> </u>			C:\Users\Administrator\Desktop\HP 8460\INF SU		00145-02212349429594295929
Database			C:\Users\Administrator\Desktop\HP 8460\INF SU		Charles and a manufacture of the second states of t
			C:\Users\Administrator\Desktop\HP 8460\INF SU C:\Users\Administrator\Desktop\HP 8460\INF SU		No. A Constant
Applications			C:\Users\Administrator\Desktop\HP 8460\INF St C:\Users\Administrator\Desktop\HP 8460\INF St		
a Drivers			C:\Users\Administrator\Desktop\HP 8460\INF SU		
🦢 Images	Driver OS version				
Smart Images	+ Supported OS	Aulti OS			
BIOS					
Computer			< Back	Next >	Cancel
Profile/preset	Application properties Add driv		t image settings Export driver(s	s) Computer: <owner last="" name<="" td=""><td>&gt; Delete com 4 🕨</td></owner>	> Delete com 4 🕨
	Output: 17 Warning(s) - 0				
t= Utilities	[17/08/2018 - 11:27:07] [17/08/2018 - 11:52:35]	Starting to edit driver: De Starting driver addition wi	1] Wireless 1515 Wireless-N Adap	oter - Version: 06/14/2012	,10.0.0.67
🚱 Settings	<pre>(11,700/2010 11.52.55)</pre>	in in the subtraction with			•
Ready					NUM

- 10. When the process is complete click the Finish Button in the lower right corner.
- 11. Copy the DRVInstaller.cmd file from the Driver Packs folder to the RemoteInstall\SDKDB\DRV folder:

🛓 Favorites	Name	Date modified	Type	🚖 Favorites	Name	Date modified	Тур
Desktop	DRV	10/16/2017 3:35 PM	File1	Desktop	NET	10/16/2017 3:52 PM	File
la Downloads	DRVInstaller.cmd	12/5/2016 10:39 A_	Winc	bownloads 1	A OTH	10/16/2017 3:52 PM	File
laces	FindINFOriginal.vbs	12/5/2016 10:43 A_	VBSc	3 Recent places	L SCS	10/16/2017 3:52 PM	File
	S FindINFused for edits.vbs	10/16/2017 4:00 PM	VBSc		SND	10/16/2017 3:52 PM	File
Libraries	OnlineDriverScavenger.cmd	11/25/2015 11:06 _	Winc	Cibraries	SYS	10/16/2017 3:52 PM	File
3 Documents				3 Documents	USB	10/16/2017 3:52 PM	File
🜛 Music				🜛 Music	A VID	10/16/2017 3:52 PM	File
🐣 Pictures				S Pictures	Driver.dat	10/16/2017 3:52 PM	DAT
Judeos			_	JU Videos	DRVInstaller.cmd	12/5/2016 10:39 A	Win
Scomputer			_	K Computer			
local Disk (C:)				Second Disk (C:)			
deployment (D:)				ige deployment (D:)			
🔹 Network			_	K Network			

12. Select all of the folders in the RemoteInstall\SDKDB\DRV folder . Right click on them while they are highlighted and select "Send to Compressed (zipped)" folder :



13. Create a new folder in the DRV Folder (name it whatever you like) and move the compressed file and the DRVInstaller.cmd file to it:

) ⊇ <b>∦</b> =	D:\\	RemoteInstall\SDKDB\DRV			-	
File Home Share View						~
🔄 🏵 - 🕆 📕 🕨 Compute	r 🕨 deployment (D:) 🔸 Rer	B + DRV +		~ C	Search DRV	م
a Favorites	Name 2	Date modified	Туре	Size		
E Desktop	A460 drivers	10/16/2017 4:34 PM	File folder			
Downloads	NET	Move to 8460 drivers 2017 3:52 PM	File folder			
🛼 Recent places	L OTH	10/16/2017 3:52 PM				
	J. SCS	10/16/2017 3:52 PM	File folder			
🞇 Libraries	A SND	10/16/2017 3:52 PM	File folder			
	J. SYS	10/16/2017 3:52 PM	File folder			
🔳 Music	USB	10/16/2017 3:52 PM	File folder			
S. Pictures	VID VID	10/16/2017 3:52 PM	File folder			
J. Videos	🖀 8460 Drivers.zip	10/16/2017 4:31 PM	WinRAR ZIP archive	404,314 KB		
	Driver.dat	10/16/2017 3:52 PM	DAT File	944 K8		
Market Computer	DRVInstaller.cmd	12/5/2016 10:39 A.	Windows Comma	0 KB		
local Disk (C:)						
deployment (D:)						

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- 14. Go back to the SDS Console
  - a. Click on the "Applications" tab
  - b. Click on the "Add Application" operation **b**
  - c. Browse to and select the folder you created in the DRV folder  $\bigcirc$
  - d. Put a check in the box next to the DRVInstaller.cmd
  - e. Make sure the box next to "Include all subdirectories" is checked as well 💿
  - f. Click on the "Next >" button  $\bigcirc$

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<u>File V</u> iew <u>H</u> elp		
💷 🖷 🔛 🙆 🚺		
Applications	Reployment Suite Console	soft <mark>thinks</mark>
Operations		
Add application		
Delete application(s) Export application(s)	SDS Console Add Application Wizard	
Database	Please select folder & application(s) you want to add.	
Database		<b></b>
ia	- 8460 drivers	
ia∰ Display devices ia	E-L NET	
	B-J. OTH	=
Printer and Scanners		
🗊 👘 Sound devices	B- SND B- SYS	
	E VID	
Smart Images		*
BIOS		
	Application available	
	E:\FileZIIa_3.35.1_win64setup_bundled.exe	
۰ III		
Database a		
Applications		
Drivers		
ages Images		
SmartImages	Include all subdirectories	
BIOS		
Lomputer		
Profile/preset		
t=Utilities	< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel
Carl Settings	Database wizard Close database(s) Create database Image properties Smart Image properties Application: amd Add application Database infor	mation Appl 🔹 🕨
Ready		NUM

- 15. The naming convention for the Driver Packs is "Manufacturer Model Operating System". The manufacturer and Operating system are for you. The model is what is used by the system to find and install the driver pack.
  - a. Type the name in the "Description" field 💿
  - b. Uncheck the box that says "Multi OS" next to "Supported OS" b, and then in "Specific OS" select the Operating systems that the driver pack is for (Windows 7 is selected by default and will need to be unchecked if it is not needed)
  - c. Set the Type to "Driver"

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- d. Set the Class class to "Unclassified"
- e. Click on the "Next >" button 🖸

	d Application Wizard	
pplication informati	on	
pplication(s)	Command line	
DRVInstaller.cm	d	
Basic options		
Description	HP - HP EliteBook 8460p - Windows 8 and 10	
Article code		
Date	16/10/2017	
Size (MB)	394.84	
Priority	50	
Language	Multi	
Supported OS	Specific OS	
Specific OS	Windows 8 64- Windows 10 64	
Advanced opti	ons	
Туре	Driver	
Class	Unclassified	
File version	1 d	
Delay 1 (sec)	0	
Delay 2 (sec)	0	



**Note:** In order to get the correct name, you will need to boot the model of the computer for which you are creating the Driver Pack

- a. Go to SDKDB\Temp and open the Temp folder for that computer
- b. Select the file ending with _Flow.xml **b** and right click to edit it
- c. Go to the line that says "PRODUCT:" and copy the model name of the computer 📀
- d. Paste that name in the Middle part of the description (for this example, it would be HP HP Elitebook 8460p Windows 8 and 10 64 bit.):

🚖 Favorites	Name	Date modified	Туре	Size	
Desktop	84349720EBF2_Flow.log	10/17/2017 8:26 A	Text Document	4 KB	
Downloads	84349720EBF2_Flow.xml	10/17/2017 8:26 A	XML File	3 KB	
Sk Recent places	deploylauncher.ini	10/17/2017 4:26 PM	Configuration setti	1 KB	
3	843	49720EBF2_Flow.xml - No	tepad		
File Edit Format View Help	i				
xml version="1.0" er<br <deployment> <hardware></hardware></deployment>	<pre>icoding="utf-16"?&gt;</pre>				
MOTHER	tel(R) Core(TM) i5-2520M CPU @ 2.5 BOARD:Hewlett-Packard - 161C - KBC /ERSION/DATE:68SCF Ver. F.22 - 12/2	Version 97.4A			
RAM DE	TECTED:4096 MB (BANK 0(2048/DDR3/1 CTURER:Hewlett-Pack 3		R3/1333))		
	T:HP EliteBook 8460p (LQ166AW#ABA)				
VEDGT	III. ACCOLLOCK				
	:CNU2399CTY				

16. Click Finish when the driver pack is finished being created:

Deployment Suite Console		soft <mark>tarets</mark>
SDS Console Add Application Wizard Please wait the end of the process.		
The application was successfully added to all selected database!		
The application was successfully access to an selected dolatase:		
	< <u>B</u> ack	Einish Gancel



17. The new driver pack will be listed in your Applications:

Please select an application for information or edition Description	capabilities Language	os	Туре	Article code
BurnInTest	Multi	Multi	Microsoft KB	
Dell - Latitude E6420 - Win 8 and 10 64 bit	Multi	Windows 8 64 - Windows 10 64	Driver	
Dell - Latitude E6420 - Win 7 64	Multi	Windows 7 64	Driver	
GRC	Multi	Windows 7 - Windows 7 64	Undefined	
HP - HP EliteBook 8460p - Windows 8 and 10 32 Bit	Multi	Windows 8 - Windows 10	Driver	
HP - HP EliteBook 8460p - Windows 8 and 10 64 bit	Multi	Windows 8 64 - Windows 10 64	Driver	
PC Angel 1.2.8 x64	Multi	Windows 764 - Windows 864	Microsoft KB	
PC Angel 1.2.8 x86	Multi	Windows 7 - Windows 8	Microsoft KB	
Details Path: D:\REMOTEINSTALL\SDKDB\AF	PSMULA	PP000005		
		PP000005		

**Note:** if the model name and the OS match, the Driver Pack will be selected automatically by the system. It does not have to be manually selected by the technician.



### **Deleting drivers ("Delete Driver(s)" operation)**

In order to delete one or more drivers,

- 1. Click on the "Drivers" tab 1, or on the "Drivers" item in the Database tree-view
- 2. Click on the "Delete driver(s)" operation 2
- 3. Select the driver(s) you want to remove from the database in the list on the right ³. If you don't see a driver you recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button  $\checkmark$

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File View Help						
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Drivers	Deployment Suite Concele				softthir	nkis.
Operations	Deployment Suite Console					
Add driver						
Add drivers in bulk:						
Analyze driver(s)	Welcome to SDS Console Delete Driver Wizard					
Delete driver(s)	Please select driver(s) to delete				1	6
Export driver(s)	Description	Language	05	Signed	Importation date	9
Inject driver(s)				-	•	
	A tester - Realtek PCIe FE Family Controller - Version: 03/11/2016,10.008.0311.2016	Multi	Windows 10 64	Yes	2016/06/02 09:55:59	
Database	ACPI Module Device - Version: 06/21/2006,6.2.9200.16384	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 17:20:11	
	ALPS Integrated Bluetooth Device - Version: 06/21/2006,6.2.9200.16420	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:57:26	
💼 📲 Applications	AMD High Definition Audio Device - Version: 06/29/2012,8.0.0.8806	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:21:38	
🚊 🏣 Drivers	AMD Radeon HD 6850 - Version: 07/04/2012, 8.981.0.0000	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:23:15	
🖮 🌍 Network	AMD SATA Controller - Version: 03/29/2015,1.2.001.0402	Multi	Multi	Yes	2017/07/20 10:47:29	
Intel Corporation	AMD-RAID Bottom Device - Version: 11/08/2016,8.1.0.00026	Multi	Multi	Yes	2017/07/20 11:22:52	
Bealtek Semiconductor	AMD-RAID Controller [storport] - Version: 11/08/2016,8.1.0.00026	Multi	Multi	Yes	2017/07/20 11:23:08	
Dell Wireless 1515 Wireless-N Ada	ASIX AX88178 USB2.0 to Gigabit Ethemet Adapter - Version: 11/24/2010, 1.14.3.8	Multi	Windows 8 64 - Windows 10 64	Yes	2016/06/07 14:25:51	
	ATI High Definition Audio Device - Version: 04/06/2010,7.11.0.7705	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:23:55	
ALPS Integrated Bluetooth Device	Bluetooth Audio Device - Version: 06/21/2012.8.0.0000.0200	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:44:37	Ξ.
	Bluetooth AVRCP Device - Version: 06/21/2012.8.0.0000.0200	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:45:09	
ASIX AX88178 USB2.0 to Gigabit I	Conexant HD Audio - Version: 03/10/2011.8.50.4.0	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:54:35	
🛓 👘 Other	Dell Wireless 1515 Wireless-N Adapter - Version: 06/14/2012.10.0.0.67	Multi	Windows 7 64 - Windows 8 - Win	Yes	2014/09/30 15:50:36	
🗄 🏐 SCSI/HDC	DE Channel - Version: 06/21/2006,6.2.9200.16384	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 17:05:39	
🖬 👘 Sound/Multimedia	<ul> <li>IIIIIIIIntel(R) C600 series chipset SATA AHCI Controller - Version: 09/03/2013,3.8.0.1</li> </ul>		Windows 7 64	No	2015/05/20 14:47:48	
🗑 – 👸 System	Intel USB- Version: 08/26/2011, 9.3.0.1011	Multi	Windows 7 64 - Windows 8 64	Yes	2013/03/20 14:47:48	
usb ⊡						
	Intel(R) 5 Series/3400 Series Chipset Family USB Enhanced Host Controller - 3B34	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 17:05:18	
i ∰ ~ ji Video	Intel(R) 6 Series/C200 Series Chipset Family SMBus Controller - 1C22 - Version: 09/1		Windows 7 - Windows 7 64	Yes	2014/11/25 11:26:21	
🗈 🚢 Images	Intel(R) 6 Series/C200 Series Chipset Family SMBus Controller - 1C22 - Version: 09/1		Windows 7 64	Yes	2014/11/25 14:26:32	
🗄 🏪 Smart Images	Intel(R) 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C26		Windows 7 64 - Windows 8 64	Yes	2014/09/30 16:56:11	
🛓 📲 BIOS	Intel(R) 8 Series/C220 Chipset Family SATA AHCI Controller - Version: 07/25/2014,1		Windows 7 64 - Windows 8 64	No	2015/08/27 13:29:06	
🗄 📲 Computer	Intel(R) 82579LM Gigabit Network Connection - Version: 12/21/2010,11.8.84.0	Multi	Windows 7 - Windows 7 64	Yes	2014/11/25 11:25:45	
	Intel(R) 82579V Gigabit Network Connection - Version: 12/21/2010,11.8.84.0	Multi	Windows 7 64	Yes	2014/11/25 14:27:08	
	Intel(R) Desktop/Workstation/Server Express Chipset SATA AHCI Controller - Version	Multi	Windows 7 64 - Windows 8 64	Yes	2014/09/30 17:22:41	
4	Intel(R) Management Engine Interface - Version: 07/07/2015,11.0.0.1157	Multi	Multi	No	2015/08/27 12:33:15	
Database	Intel(R) Management Engine Interface - Version: 10/19/2010,7.0.0.1144	Multi	Windows 7 64	Yes	2014/11/25 14:24:46	
	Microsoft Trusted Audio Drivers - Version: 07/13/2009,6.1.7600.16385	Multi	Windows 7 - Windows 7 64	Yes	2014/11/25 11:27:39	
Applications	MICROSTORE - AMD-RAID Bottom Device - Version: 11/08/2016,8.1.0.00026	Multi	Multi	Yes	2017/08/11 11:38:42	
	MICROSTORE - AMD-RAID Controller [storport] - Version: 11/08/2016.8.1.0.00026	Multi	Multi	Yes	2017/08/11 11:39:03	
Crivers	INVIDIA C-F CT EDEM 1/ 07/01/0010 0 10 10 0540	M. da:	MAR_J	v	0014/00/00 17:00:00	Ŧ
🛃 Images	•					
w inages						
😂 Smart Images			< Back Next >	φ.	Cancel	
BIOS	Driver: Dell Wireless 1515 Wireless-N Adapter - Version: 06/14/2012,10.0.0.67 Applica	ition proper	ties Add driver Database inform	nation D	elete driver(s) Comp	
Normputer	Output: 17 Warning(s) - 0 Error(s)					
Profile/preset	[17/08/2018 - 10:58:25] Starting application properties wizar [17/08/2018 - 10:58:25] Displaying applications by Categorie: [17/08/2018 - 10:58:26] Starting driver properties wizard		tems			*
	[17/08/2018 - 10:58:26] Starting driver properties wizard [17/08/2018 - 10:58:26] Displaying drivers by Categories: '42		e emp			_
t=Utilities	<pre>[17/08/2018 - 11:27:07] Starting to edit driver: Dell Wireles</pre>	s 1515 Wi	reless-N Adapter - Versio	n: 06/1	4/2012,10.0.0.67	-
🎼 Settings	[17/08/2018 - 11:52:35] Starting driver addition wizard					•
Ready					NUM	

5. The wizard will inform you once the drivers will have been removed from the database.

**Note**: Deletion is permanent. There is no method to undo a delete. Be careful when selecting drivers for deletion and review them.

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#### Exporting a driver ("Export Driver(s)" operation)

In order to export one or more drivers:

- 1. Click on the "Drivers" tab 1, or on the "Drivers" item in the Database tree-view
- 2. Click on the "Export driver(s)" operation 2
- 3. Select the driver(s) you want to export in the list on the right ³. If you don't see a driver you recently added, press F5 to refresh the list contents.
- 4. Click on "Next >" button

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- 5. Select the destination folder where the ZIP files will be created  5
- 6. Select the languages supported ⁶, or check the "Keep as Multilanguage" option to allow the package to work with all languages
- 7. Click on the "Next" button 7

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8. The wizard will display a progress screen and then a confirmation screen when the driver(s) are successfully exported.



## Injecting drivers ("Inject Driver(s)" operation)

- 1. Click on "Drivers" tab
- 2. Click on the "Inject driver(s)" operation 2
- 3. Select the boot image into which you want to inject the driver(s) in the list ³
- 4. Click on the "Next >" button  $\checkmark$

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Operations         Add drivers in bulk         Analyze driver(s)         Delete driver(s)         Export driver(s)         Inject driver(s)         Database         Database         Database         Applications         Inject driver(s)         Smart Images         Smart Images         Smart Images         Profile/preset         Images         Database	Welcome to SDS Console Boot Image Settings Wizard         Please select the boot image you would like to working with         Boot image file name         DeploySDS 10. NET 10586 - x86 03-17-2017.wim         DeploySDS_1607_x86.wim         DeploySDS_1607_x86.wim         DeploySDS_1703_x86_HDDR.wim         DeploySDS_1703_x86_HDDR.wim         DeploySDS_X86_10586.wim         DeploySDS_X86_10586.wim         DeploySDS_X86_10586.wim         DeploySDS_10.NET 10586 - x64 10-13-2016.wim         DeploySDS_10.NET 10586 - x64 13-04-2017.wim         DeploySDS_10.VET 10586 - x64 13-04-2017.wim	3
Applications  Drivers  Smart Images	WIM GUID:         6BE5D12B-8F28-45E4-BBCD-C882E8B0ED36           Image compression:         LZX           Image size:         233.11 MB           Internal name:         Microsoft Windows PE (x86) (Microsoft Windows PE (x86))           Modification time:         03/30/2018 15:45           Creation time:         03/18/2017 19:17           Comment:         0	
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- 5. Choose the "Install an INF package (Recovery & WDS boot image)" option
- 6. Click on the "Next >" button 6

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		Welcome to SDS Console Boot Image Settings Wizard Choose what you want to do with boot image	
		Change some internal image attributs	
		Installs an INF package (Recovery & WDS boot image)	
		Configure the deployment launcher Clean WDS deployment boot image (WIM size will be reduced)	
		6	
		< Back Next >	Cancel
7.	Che	eck the options "Make a backup of 'WIM' image file before importing" $oldsymbol{7}$	
8.	Che	eck the option "Update only WDS 'WIM' image file" 🔒	
9.	Sel	lect the driver(s) to inject 🧐	
10.	Clic	ck on the "Next >" button 10	

Deployment Suite Console							soft the
Welcome to SDS Console Boot Image Settings Wizard							
Please select the driver you want to add to the boot image Make a backup of 'WIM' image file before importing 7							
□ Clean the resulting 'WIM' image file ☑ Update only WDS 'WIM' image file 8							
Description	Language	OS	Туре	Article code			
LAN7500 USB 2.0 to Ethemet 10/100/1000 Adapter - Version: 06/04/2013,2.2.2.4 LAN7500 USB 2.0 to Ethemet 10/100/1000 Adapter - Version: 06/04/2013,2.2.2.4		Multi Multi	Yes Yes				
					< Back	Next > 10	Cance

11. The wizard will notify you once the process is completed



#### Analyzing drivers ("Analyze driver(s)" operation)

This tool provides an easy way to identify and remove duplicate drivers, typically drivers that support the same PNP IDs but are of different description or names in the database.

- 1. Click on the "Drivers" tab or the "Drivers" item in the Database tree-view 👥
- 2. Click on the "Analyze driver(s)" operation
- 3. Select the options to fine tune the analysis (driver type, driver PNP, ignore OS, ignore deactivated PNP)
- 4. Click on the "Analyze" button

SDSC - V: 3.0.0.272				- • •
File View Help				
🔤 🖷 📾 🚺 🚺				
Drivers Operations Add driver Add drivers in bulk Analyze driver(s)	Deployment S			soft <mark>thinks</mark>
Delete driver(s) Export driver(s)	Please select options to fine tune		3	- Anatara
Inject driver(s)  Database  Database 'LOCAL' - BLEU (SDS17.0.1)  Applications  Drivers  Applications  Drivers  ALPS Integrated Bluetooth Device  ALPS Integrated Bluetooth Device  ALPS Integrated Bluetooth Device  ALPS Integrated Bluetooth Device  ASIX AX88178 USB2.0 to Gigabit E  Other  SSCI/HDC  SSCI/HDC  SSCI/HDC  SSCI/HDC  SSCI/HDC  SSCI/HDC  SSCI/HDC  SSCI/HDC  Doter  SSCI/HDC  Doter  SSCI/HDC  Doter  SSCI/HDC  Doter  Doter Doter  Doter  Doter  Doter  Doter Doter  Doter Doter Doter Doter Doter Doter Doter Doter Doter Doter Doter Doter Doter Dote	AMD High Definition Audio PNP identical PNP identical PNP identical PNP identical PNP identical PNP identical PNP identical PNP identical PNP identical PNP im Datublo/FUNC PNP in more (3) PNP in more (3) PND in mor	Ignore OS	PNP - Windows 7 64 - Windows 8 64 - NE Windows 7 64 - Windows 8 64 - SND\M 4 - Windows 8 64 - SND\MUL\SND000001) XTI High Definition Audio Device ) XTI High Definition Audio Device ) TI High Definition Audio Device ) SND\MUL\SND000002) SND\MUL\SND000003) dows 8 64 - SND\MUL\SND000004) -Windows 7 64 - SND\MUL\SND000006) SCS\MUL\SCS000005) Ht - SND\MUL\SND000003) PNP - Windows 7 64 - Windows 8 64 - SND\MUL\SND Windows 8 64 - SND\MUL\SND000003) PNP - Windows 7 64 - Windows 8 64 - SND\MUL\SND Windows 8 64 - USB\MUL\USD000002)	UL\SND000000) 5 E UL\SND0000001) 000002) bws 8 64 - NET\M Cancel
Computer	Driver: Dell Wireless 1515 Wireless-N A	dapter - Version: 06/14/2012,10.0.0.67 Application propertie	es Add driver Analyse Drivers Database	information Delete 🕢 🕨
Profile/preset	Output: 17 Warning(s) - 0 Er			
tilities	[17/08/2018 - 13:22:51] Dr [17/08/2018 - 13:23:17] Dr	iver thread analysis started iver thread analysis finished		-
Settings	•	III		4
Ready				NUM



The drivers are listed ³ while they are parsed and the progress bar ⁶ shows the current status (also in the tab ⁷ to follow it when you switch between views). You can stop the analysis at any moment by clicking on the « Cancel » button ⁸.

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	soft
SDS Console Analysing Drivers Wizard More recent driver that support less PNP the Please select options to fine tune analysing porcess	an an older
Type Sound/Multimer v PNP	Analyse
<ul> <li>Realtek High Definition audio - Version: 11/20/2012, (871 FNP - Windows 7 64 - SND\MUL\SND000002)</li> <li>Realtek High Definition Audio - Version: 09/09/2014,6.16.00.3154 (16 PNP - Windows 7 64 - SND\MUL\SND000003)</li> <li>Intel(R) Display Audio - Version: 09/09/2014,6.16.00.3154 (12 PNP - Windows 7 64 - SND\MUL\SND000007)</li> <li>Realtek High Definition Audio - Version: 08/22/2013, (2439 PNP - Windows 7 64 - SND\MUL\SND000002)</li> <li>Realtek High Definition Audio - Version: 11/20/2012, (871 PNP - Windows 7 64 - SND\MUL\SND000007)</li> <li>Realtek High Definition Audio - Version: 11/20/2012, (871 PNP - Windows 7 64 - SND\MUL\SND000002)</li> <li>Realtek High Definition Audio - Version: 11/20/2012, (871 PNP - Windows 7 64 - SND\MUL\SND000002)</li> <li>Realtek High Definition Audio - Version: 11/20/2012, (871 PNP - Windows 7 64 - SND\MUL\SND000002)</li> <li>Realtek High Definition Audio - Version: 07/08/2014, 6.0.17288 (3083 PNP - Windows 7 64 - SND\MUL\SND0000012)</li> <li>PNP in more</li> <li>PNP in more</li> <li>PhDAUDIO\FUNC_018VEN_10EC&amp;DEV_0269&amp;SUBSYS_144DC738</li> <li>HDAUDIO\FUNC_018VEN_10EC&amp;DEV_0292&amp;SUBSYS_18495892</li> <li>Realtek High Definition Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000011)</li> <li>Realtek High Definition Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000012)</li> <li>Intel(R) Display Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000012)</li> <li>Intel(R) Display Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000012)</li> <li>Intel(R) Display Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000011)</li> <li>Intel(R) Display Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000017)</li> <li>Intel(R) Display Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND\MUL\SND000017)</li> <li>Intel(R) Display Audio - Version: 03/31/2015, 6.16.00.3174 (12 PNP - Windows 7 64 - SND</li></ul>	SND000007.
ANALYSING STILL IN PROGRESS	6 Cancel 8
Deployment Suite Console	soft <mark>thinks</mark>
SDS Console Analysing Drivers Wizard Exactly same PNP nothing more no Please select options to fine tune analysing porcess one must be removed	thing less
	thing less
Please select options to fine tune analysing porcess one must be removed	



Reployment Suite Console	soft thinks
SDS Console Analysing Drivers Wizard Please select options to fine tune analysing porcess Type Video V PNP PCI/VEN_10DE	Analyse
Input index       Implementation       Implementation         Implementation       Implementation       Implementation       Implementation         Implementation       Implementation       Implementation       Implementation       Implementation<	ver OS
< Back Next >	Cancel

n Console	soft throks
SDS Console Analysing Drivers Wizard       Same drivers with         Please select options to fine tune analysing porcess       Type Vdeo PNP   lgnore OS Ignore deactivated PNP         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (53 PNP - Windows 7 64 - VID/MUL/VID000002)       NVIDIA GeForce GT 555M - Version: 08/07/2015, 10.18.13.5382 (87 PNP - Windows 7 64 - VID/MUL/VID000002)         NVIDIA GeForce GT 555M - Version: 08/07/2015, 10.18.13.5382 (87 PNP - Windows 7 64 - VID/MUL/VID000005)       This one have one pnp in more it must be keep         PNP in less       PNP in less       This one have one pnp in more it must be keep         PNVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (54 PNP - Windows 7 64 - VID/MUL/VID000005)       This one have one pnp in more it must be keep         PNP in less       NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (54 PNP - Windows 7 64 - VID/MUL/VID000007)         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (54 PNP - Windows 7 64 - VID/MUL/VID000005)         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (54 PNP - Windows 7 64 - VID/MUL/VID000007)         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (54 PNP - Windows 7 64 - VID/MUL/VID000007)         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (54 PNP - Windows 7 64 - VID/MUL/VID000007)         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (53 PNP - Windows 7 64 - VID/MUL/VID000002)         NVIDIA GeForce GT 555M - Version: 10/23/2013, 9.18.13.3165 (53 PNP - Windows 7 64 - VID/MUL/VID000002)      <	Analyse
WIDIA GeForce GTX 460M - Version: 01/09/2015, 9.18.13.4725         (82 PNP - Windows 8 64 - VID\MUL\VID000048)           WIDIA GeForce GTX 460M - Version: 01/09/2015, 9.18.13.4725         (82 PNP - Windows 8 64 - VID\MUL\VID000049)	~
< Back Next >	Cancel



Deployment Suite Console	
SDS Console Analysing Drivers Wizard       Analysing scan deactivated PNP and show the VID00001         Please select options to fine tune analysing porcess       -> it is fully commented why !!??         Type Video       PNP       Ignore OS       Ignore deactivated PNP       Analysing account of the tune analysing porcess         Type Video       PNP       Ignore OS       Ignore deactivated PNP       Analyse         AMD Radeon R7 MZ70 - Version: 06/22/2015, 15:200.1045.0000       (12 PNP - Windows 8 - VID/MUL/VID000012)       Analyse         AMD Radeon R7 MZ70 - Version: 08/22/2015, 15:200.1045.0000       (13 PNP - Windows 8 - VID/MUL/VID000019)       Analyse         AMD Radeon R7 MZ70 - Version: 03/23/2015, 15:200.1045.0000       (13 PNP - Windows 8 - 4 - VID/MUL/VID000005)       Image: Marking Mar	<pre>control control c</pre>
WARNING VID00054 is the same as VID00001 so remove VID00001 and set properly VID000054 OS !! Cancel	<pre>     [IntelGf.NTamd64.6.1]     ; BDW HW     \$ BDWULTGI1\$ -&gt;= 1BDWM_w7, PCI\VEN_80866DEV_16066SUBSYS_06BE1028;     \$ BDWULTGI2\$ -&gt;= 1BDWM_w7, PCI\VEN_80866DEV_16166SUBSYS_06BE1028;     \$ BDWULTGI2\$ -&gt;= 1BDWM_w7, PCI\VEN_80866DEV_16166SUBS_80864DEV_16166SUBS_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161665UB_80864DEV_161</pre>

??????



ettings DSC Application settings	Reployment Suit	ce Console			soft <mark>thin</mark>
BIOS settings Database settings	Welcome to SDS Console Boot	Image Settings Wizard			
Driver settings	Here are drivers from the selected WIM	I file			
Image settings	Inf File Original Inf File	Туре	Provider	Date	version
tabase	oem0.inf hdaudio.inf	MEDIA (Contrôleurs audio, vidéo et jeu)	Microsoft	18/03/2019	10.0.18362.1
Boot image settings	oem1.inf netvwifibus.inf	System (Périphériques système)	Microsoft	21/06/2006	10.0.18362.1
Deployment settings	oem10.inf nulldrvr.inf	System (Périphériques système)	ATTO Technology, Inc.	28/01/2020	2.350.4001.6000
NAS settings	oem100.inf ialpss_uart.inf	System (Périphériques système)	Intel Corporation	08/01/2015	1.0.226.4
Test settings	oem101.inf appleaudio.inf	MEDIA (Contrôleurs audio, vidéo et jeu)	Apple Inc.	07/08/2018	6.1.7000.0
Users management	oem102.inf appleaudio_1803106b.inf	Extension (Extensions)	Apple	07/08/2018	6.1.7000.0
	oem103.inf appleaudio_1880106b.inf	Extension (Extensions)	Apple	07/08/2018	6.1.7000.0
	oem104.inf appleaudio_1881106b.inf	Extension (Extensions)	Apple	07/08/2018	6.1.7000.0
	oem105.inf keymagic2.inf	HIDClass (Périphériques d'interface utilisateur)	Apple Inc.	21/06/2018	6.1.7000.0
	oem106.inf applemtp64.inf	HIDClass (Périphériques d'interface utilisateur)	Apple Inc.	17/06/2018	6.1.7000.0
	oem107.inf appletpp64.inf	HIDClass (Périphériques d'interface utilisateur)	Apple Inc.	21/06/2018	6.1.7000.0
	oem108.inf applenull64.inf	System (Périphériques système)	Apple Inc.	19/06/2018	6.1.7000.1
	oem109.inf applessd.inf	SCSIAdapter (Contrôleurs de stockage)	Apple Inc.	22/05/2018	6.1.7000.0
	oem11.inf esas4hba.inf	SCSIAdapter (Contrôleurs de stockage)	ATTO Technology, Inc.	14/08/2019	1.450.4001.6000
	oem110.inf appleusbvhci.inf	System (Périphériques système)	Apple Inc.	26/07/2018	6.1.7000.0
	oem111.inf aqnic650.inf	Net (Cartes réseau)	Aquantia	15/02/2018	2.1.4.0
	oem112.inf bcmwdidhdpcie.inf	Net (Cartes réseau)	Broadcom	25/06/2018	100.10.200.18
	oem113.inf rimmptsk.inf	hdc (Contrôleurs IDE ATA/ATAPI)	Ricoh Company	25/06/2009	6.10.1.3
	oem114.inf rimsptsk.inf	hdc (Contrôleurs IDE ATA/ATAPI)	Ricoh Company	25/06/2009	6.10.1.3
	oem115.inf rismc.inf	SmartCardReader (Lecteurs de cartes à puce)	RICOH Company, Ltd.	20/07/2009	1.12.0.0
	oem 116.inf rixdptsk.inf	hdc (Contrôleurs IDE ATA/ATAPI)	Ricoh Company	25/06/2009	6.10.1.4
Database	oem12.inf nulldrvr.inf	System (Périphériques système)	ATTO Technology, Inc.	14/08/2019	1.450.4001.6000
Applications	oem13 inf al2x00 inf	SCSIAdapter (Contrôleurs de stockage)	QLonic	29/08/2019	93320
F	Delete driver(s)				
Drivers					
» Images	_		< Back	Save	e Cancel
	Analyse Drivers Boot image settings				
s SmartImages					
smartImages BIOS	Output: 0 Warning(s) - 0 Error(s) [11/02/2021 - 15:32:36] Startin	g driver analyzing wizard			
> SmartImages • BIOS • Computer	Output: 0 Warning(s) - 0 Error(s) [11/02/2021 - 15:32:36] Startin [11/02/2021 - 15:36:05] Startin	g driver analyzing wizard g boot image setting wizard	\ADMIŅI~1.WIN\AppDa	ta\Local\Ter	mp\WIMMOUNT_00
SmartImages BIOS Computer Profile/preset	Output: 0 Warning(s) - 0 Error(s) [11/02/2021 - 15:32:36] Startin [11/02/2021 - 15:36:05] Startin [11/02/2021 - 15:36:45] Mountin [11/02/2021 - 15:36:45] The WIW	g driver analyzing wizard	\ADMINI~1.WIN\AppDa hted in 'C:\Users\A 'C:\Users\ADMINI~1.	ta\Local\Ter DMINI~1.WIN WIN\AppData\	mp\WIMMOUNT_000 \AppData\Local \Local\Temp\WI
<ul> <li>SmartImages</li> <li>BIOS</li> <li>Computer</li> <li>Profile/preset</li> <li>Utilities</li> </ul>	Output: 0 Warning(s) - 0 Error(s) [11/02/2021 - 15:32:36] Startin [11/02/2021 - 15:36:05] Startin [11/02/2021 - 15:36:45] Mountin [11/02/2021 - 15:36:45] The WIW	g driver analyzing wizard g boot image setting wizard g WIM image number '31' in 'C:\Users\ i image number '31' was correctly mour	\ADMINI~1.WIN\AppDa ited in 'C:\Users\A C:\Users\ADMINI~1.	ta\Loca]\Ter DMINI~1.WIN WIN\AppData`	np\WIMMOUNT_00 \AppData\Local \Local\Temp\WI
SmartImages SIOS Computer Profile/preset	Output: 0 Warning(s) - 0 Error(s) [11/02/2021 - 15:32:36] Startin [11/02/2021 - 15:36:05] Startin [11/02/2021 - 15:36:45] Mountin [11/02/2021 - 15:36:45] The WIW	g driver analyzing wizard g boot image setting wizard g WIM image number '31' in 'C:\Users\ i image number '31' was correctly mour	\ADMINI~1.WIN\AppDa ited in 'C:\Users\A C:\Users\ADMINI~1.	ta\Local\Ter DMINI-1.WIN WIN\AppData	mp\WIMMOUNT_00 \AppData\Local \Local\Temp\WI



# Images

SDSC - V: 3.0.0.272					
View Help					
• 🖷 🔛 🎒 🚺					
ages	Dealer mount Suite Consols				softthin
-	Reployment Suite Console				SOLC
erations Add image	M · · ·				_
Delete image(s)					
Delete Inage(s)	SDS Console Images properties				
	Please select an image for information or edition capabilities				
abase					
📑 Database 'LOCAL' - BLEU (SDS17.0.1)	Description	Disk size (MB)	Language		Build
🗄 🚮 Applications	Apple Inc Macmini7,1 (Mac-35C5E08120C7EEAF) - Ver:10.12.5	8376.799	English	MacOS X	10.12.5
🗄 🐳 Drivers	Dell Inc Vostro 2520 - testBCD witouh Resume	7890.102	French	Windows 8 64	6.2.9200.16384
	Apple Inc MacBookPro9,2 (Mac-6F01561E16C75D06) - Test titi - Ver:10.8.5	10378.750	English	MacOS X	
⊕@ MacOS X	Apple Inc MacBookPro9,2 (Mac-6F01561E16C75D06) - 29/05/2017 - Ver:10.8.5	10209.973	English	MacOS X	
🖶 友 Windows 10	Dell Inc Inspiron 5758 - Cp7 - compact -24/05/2017	24415.837	French	Windows 10 64	10.0.15063.0
	Dell Inc Inspiron 3847 - 19052017	25219.933	French	Windows 10 64	10.0.15063.0
·	TEST SBAR - Generic - GPT x86 - install with autounattend - Romain	3012.142	English	Windows 10	10.0.15063.0
Windows 7	TEST SBAR - Generic - MBR x86 - install with autounattend	3045.561	English	Windows 10	10.0.15063.0
· · · ·	TEST SBAR - Generic - GPT x64 - install with autounattend	4109.901	English	Windows 10 64	10.0.15063.0
⊕ 🔊 Windows 8	TEST SBAR - Generic - MBR x64 - install with autounattend	4104.119	English	Windows 10 64	10.0.15063.0
🖅 灯 Windows 8 64	Dell Inc Inspiron 13-7353 Redstone 2 Lucky	15288.400	English	Windows 10 64	10.0.15063.0
🗄 📩 Smart Images	TOSHIBA - SATELLITE P50-C - test migration - 25042017	45865.996	French	Windows 10 64	10.0.15063.0
BIOS	Dell Inc XPS 11 9P33 - test migration - 19042017	35678.323	French	Windows 10 64	10.0.15063.0
🖅 📜 Computer	Dell Inc XPS 11 9P33 - Creator Update - 14-04-2017	47346,729	French	Windows 10 64	10.0.15063.0
🛓 📑 Profile/preset	Alienware - Alienware X51 - test migration - 12042017	26883.658	French	Windows 10 64	10.0.15063.0
	Dell Inc Inspiron 13-5368 - 11042016	23083.465	English	Windows 10 64	
4 III	LENOVO - 20378 - 11042017	22476.565	French	Windows 10 64	
Database	Dell Inc Inspiron 5758 - test migration - 11042017	46936.619	French	Windows 10 64	
	Dell Inc Inspiron 13-5368 - test migration - 10042017	39030 980	English	Windows 10 64	
Applications			1 THE BLACK		4
Drivers	Details				
Drivers					
Images	Path: Z:\SDKDB\RIS\RIS_IM000020				
	Operating System: Windows 8 64 (UEFI)				
SmartImages	💾 OS size: 20600.46 MB				
	Signature: 2017/06/08 11:14:46				
BIOS	MD5 Checksum activated: No				
Computer	Default image: No				
computer					
Profile/preset				<b>6</b>	
			Next >	$\mathbf{\Psi}$	Cancel
Utilities					
	Image properties Database information				
Settings					

You can explore the Images of your database by clicking on the "Images" tab , or directly on the "Images" object in the Database tree-view :

When you select an image in the list 3, you will see all of its details below 4, including its path that you can open by clicking on the link 5.

You can export the list of the images by clicking on the 🕒 button ⁶ and then selecting the output file path and format (CSV or TXT).

## Click on the "Next >" button $\mathbf{\mathbf{0}}$ , or double click on the image in the list, to edit its properties:

Image properties	
Description	Dell Inc Vostro 2520 - testBCD witouh Resume
Language	French
Article code	
VSN	0x74C8814B
Clone VSN	🔲 (No)
Check CRC	🔲 (No)
Use CAB date	🔲 (No)
Default image	🔲 (No)
MLSP image	🔲 (No)
Display SMI creation request	🔲 (No)
Real Size (MB)	20600.46
Disk Size (MB)	7890.10
Compression	Casper V7
OS version	Windows 8 64
Signature	2017/06/08 11:14:46
MHD type	Static



#### Adding an image ("Add image" operation)

(**Note**: Most of the time images will be created directly from the computer with the source image on it through the Welcome Screen and the Image Creation page and not the Console. These instructions are for information purposes only.)

- 1. Click on the "Images" tab
- 2. Click on the "Add Image" operation
- 3. Click on the "Next >" button 3

SDSC - V: 3.0.0.272		
File View Help		
Images         Add image         Delete image(s)         Database         Database         Database         Database         Dirivers         Images         MacOS X         MacOS X         Windows 10         Windows 7         Windows 7 64         Windows 8 64         Windows 8 64         Windows 8 64         Windows 8         Divers         Database         Drivers         Mages         SmartImages         SmartImages	© Deployment Suite Console Welcome to SDS Console Add Image Wizard This wizard will help you to add images into the database you will working with. Image Import an already existing image	SOL
🐲 BIOS	< Back Next > 3	Cancel
Profile/preset	Securing: Dell Inc Vostro 2520 - testBCD witouh Resume Add image Database information	
E Utilities	Output: 1 Warning(s) - 1 Error(s) [20/08/2018 - 15:50:38] Checking file 'Z:\SDKDB\RIS\RIS_IM000020\PRELOAD\BASE_0001.INP' [20/08/2018 - 15:50:40] Starting image addition wizard	A 
Ready		NUM

- 4. From the pull-down menu •, select the volume letter corresponding to the hard disk that will be imported
- 5. Select the image format you wish to use 5:

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- Vista & new OS images (WIM): Microsoft's Windows Image format. File based image format compatible with Windows Vista and newer OS. WIM files modified using standard Microsoft OPK Tools and by SDS. This is the format of the WinPE boot image.
- **XP/2000/2003 images only:** Casper, the SoftThinks standard format used in current releases of SDS, very reliable, robust and time tested. The contents of these files cannot be modified post creation.
- **VD:** Virtual Disk, a format from SoftThinks which can be used for static images and has very good speed advantages. The contents cannot be modified.
- 6. Specify if you want to split the image  6 , and if so the size of the chunks

**Note:** The option for Splitting Image in 650MB chunks is for use with WIM format – if this option is chosen, the WIM file can no longer be modified – a limitation imposed by Microsoft. However, smaller file sizes will reduce the network traffic and allow any type of optical media to be used to create backups. It is recommended that the smaller size be used.

7. Click on the "Next >" button  $\checkmark$ 

Depl	oyment Su	ite Console		soft <mark>thinks</mark>
elcome to	SDS Console Add	d Image Wizard		
ease select t	he disk and compress	ion methode to use.		
Disk id: 1 - M	odel: - Size: 0.00 GB	0		
Splitting im	age in 650 🔹 MB	Vista & new OS images (WIM)     O XP/2000/2003 images only     Vista, new OS images & Linux		
excluded a	mounted volumes from the iutomatically) ing to incude the Soft Thin	selected disk (Soft Thinks Recovery partition will be ks Recovery partition		
Letter	label	size (MB)		
		Tr.		
			7	
			< Back Next >	Cancel



- 8. Enter a description for your image ³
- 9. Enter an article code (not commonly used) to associate with this image 🧐
- 10. Specify the language 0
- 11. Specify the supported OS 11

Deployr 🖉	nent Suite Console		soft <mark>think</mark>
	Console Add Image Wizard e info for the image to add		
Image properties			
Description	Image description		
Article code	9		
Language	English 10		
specific propertie			
Size (MB)	0.00		
Compression	WIM		
OS version	Vindows 7 Windows 7 64 Linux Windows 2000 Windows XP Windows XP 64 Windows XP 64 Windows VE Windows 2003 Windows 2003 Windows 2003 64 Windows Vista Windows Vista Windows Vista 64 Windows Server 2008 Windows Server 2008 64		
Signature			
		<pre>&lt; Back Next &gt;</pre>	Cancel



#### **Deleting images ("Delete image(s)" operation)**

- 1. Click on the "Images" tab
- 2. Click on the "Delete image(s)" operation
- 3. Select the image(s) to delete in the list 3. If you don't see a image you recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button  $\checkmark$

👹 SDSC - V: 3.0.0.272							• <b>×</b>
File View Help							
📼 😨 🔤 🇁 🚺							
Images	Reployment Suite Console					soft	hinks
Operations							
Add image							
Delete image(s)	Welcome to SDS Console Delete Image Wizard						
	Please select image(s) to delete						
Database	Please select image(s) to delete						
🖃 🗐 Database 'LOCAL' - BLEU (SDS17.0.1)	Description	Language	OS	Compression	Disk size (MB)	Date	Arti
🛓 🚠 Applications	HP Pavilion dv 7-3030sf SP0 ATI 3129080	French	Windows 7 64	Casper V2	29382.539	2009/11/10 08:08:22	
🖶 🍓 Drivers	HP Pavilion dv7-3030sr SP0 ATI 3125080	French	Windows 7 64 Windows 7 64	Casper V2 Casper V2	26541.546	2010/02/18 11:11:18	
🖨 🚢 Images	Hewlett-Packard - HP Pavilion dv7 Notebook PC SP1 16/06/2011 - Compact	French	Windows 7 64 Windows 7 64	Casper V2 Casper V7	26658.480	2010/02/18 11:11:18 2011/06/16 17:48:42	Inci
🗄 - 🧊 MacOS X	Dell Inc Inspiron 620 - Cp7 - compact - 26/07/2011	French	Windows 7 64 Windows 7 64	Casper V7 Casper V7	9338.085	2011/07/26 16:35:14	inc.
🖬 🔊 Windows 10	Windows 7 Home Premium Dell Generic - x64 - EN - 23/09/2011	English	Windows 7 64 Windows 7 64	WIM	3142.603	2011/09/23 14:58:36	Inci
windows 10 64	Windows 7 Pone Premium Dei Generic XX4 - EN - 23/03/2011	English	Windows 7 64 Windows 7	WIM	3353.521	2011/10/12 16:27:29	
💮 🖉 Windows 7	Dell Inc Dell System XPS 15Z - SP1 - DARTY - Cp7 - compact - 26/01/2011	French	Windows 7 64	Casper V7	9809.046	2012/01/26 15:14:38	
💮 🖉 Windows 7 64	Hewlett-Packard - HP Mini 210-1000 system recovery	French	Windows 7 64	Casper V7	0.060	2012/01/20 13:14:30	Inci
💮 🖉 Windows 8	ASUSTEK COMPUTER INC N76VZ-V2G-T5061V	French	Windows 7 64	Casper V7	52022.495	2012/05/25 15:45:35	
	Windows Server 2012 MBR x64 + SRP (no autounattend) MHDC 9.0.20	English	Windows 8 64	WIM	3231.854	2012/08/30 18:00:31	
E Carl Images	Hewlett-Packard - HP Pavilion g7 Notebook PC - 04/12/2012 - oobe - VD	French	Windows 8 64	Virtual Disk	34962.168	2012/12/04 21:16:09	Inci
BIOS	Hewlett-Packard - HP Pavilion g7 - VD - oobe - 04/12/2012	French	Windows 8 64	Virtual Disk	34962.168	2012/12/04 21:16:09	
E Computer	Acer - Aspire V5-571PG - VD - oobe - 04/12/2012	French	Windows 8 64	Virtual Disk	26603.781	2012/12/04 21:31:16	
Finite Profile/preset	SAMSUNG ELECTRONICS CO., LTD 530U3C/530U4C - VD - oobe - 05/1	English	Windows 8 64	Virtual Disk	34300.892	2012/12/05 11:59:15	
H	SAMSUNG ELECTRONICS CO., LTD 530U3C/530U4C - oobe - VD	English	Windows 8 64	Virtual Disk	34300.892	2012/12/05 11:59:15	
۰ III • •	Hewlett-Packard - p6-2312ef - VD - oobe - 05/12/2012	French	Windows 8 64	Virtual Disk	29391.293	2012/12/05 13:03:24	
Database	Hewlett-Packard - p6-2312ef - Wim - 06/12/2012	French	Windows 8 64	WIM	26510.369	2012/12/06 18:16:21	
- Carabase	Dell Inc Inspiron 5720 - 27/12/2012	French	Windows 8 64	Casper V7	25061.536	2012/12/27 15:52:03	Inci
Applications	Dell Inc Vostro 2520 - Cp7 - compact - oobe - 27/12/2012	French	Windows 8 64	Casper V7	7376.399	2012/12/27 16:44:57	
	Dell Inc Vostro 2520 - Cp7 - classic - 27/12/2012	French	Windows 8 64	Casper V7	16343.715	2012/12/27 18:13:57	Inci 🗸
Drivers	· · ·						•
🚛 Images							
inages	Deleted also SmartImage associated to selected image						
🍣 SmartImages							
SIOS BIOS				< Back	Next >	Ca	ncel
Jeg Computer	Securing: Dell Inc Vostro 2520 - testBCD witouh Resume Driver properties	Add image	Database info	rmation Dele	te image(s) In	nage properties	
式 Profile/preset	Output: 1 Warning(s) - 1 Error(s)						
= Utilities	[20/08/2018 - 15:51:02] Checking file 'Z:\SDKDB\RIS\RIS_ [20/08/2018 - 15:51:02] Checking file 'Z:\SDKDB\RIS\RIS_	IM000020\	PRELOAD	0006\BASE_	0000.INP'		*
	[20/08/2018 - 15:51:02] Checking file 'Z:\SDKDB\RIS\RIS [20/08/2018 - 15:51:36] Starting driver properties wizar	тм000020\ d	PRELOAD\PART	0006\BASE_0	0001.INP'		
🚱 Settings	[20/08/2018 - 15:51:36] Displaying driver by Categories [20/08/2018 - 15:51:36] Starting image properties dialog	: '42' it	ems				-
Ready						NUN	1 .4

**Note**: Deletion is permanent. There is no method to undo a delete. Be careful when selecting images for deletion and review them.

# Smart Images

SmartImages are differential images which reflect the difference between the basic Windows installation on a Generic Master and the fully configured target device. In general, they contain all items that were added on top of the basic Windows installation: PC-specific drivers, bundle software and applications.

SmartImages are fast to set up and can be very useful for installing configurations that change very rarely; i.e. notebooks or PCs with all-in-one motherboards.

To view and edit the SmartImages stored in the database, click on the « SmartImages » tab or on the "SmartImages" item in the Database tree-view 1.

When you select a Smart Image from the list 2, or directly from the tree-view 1, you can see its details below 3, including the location where it is stored 4 on which you can click to directly open this folder.

🚰 SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔤 🙆 🚺		
SmartImages Operations Delete SmartImage(s)	Deployment Suite Console	soft <mark>thinks</mark>
Database	SDS Console SmartImage properties Please select smartimage for information or edition	2
Database 'LOCAL' - BLEU (SDS17.0.1)	Description Language Image associated Article code	
Applications	SmartImage From Dell Inc Inspiron 3847 - test migration - 01122015 French Dell Inc Inspiron 3847 - test migration - 01122015	
Drivers		
🖶 🚢 Images 🛛 🖉		
🚊 🚵 Smart Images		
🦾 🦓 SmartImage From Dell Inc Inspiron 38		
BIOS		
🗄 📜 Computer		
ia 🚉 Profile/preset		
4 III >		
Database		
	Details	
Applications		
Drivers	Path: <u>Z:\SDKDB\DIFF\FRN\PRD000051</u>	
	🚺 Image linked: Dell Inc Inspiron 3847 - test migration - 01122015	
🧼 Images	📕 Size: 14826 MB	
👺 Smart Images	Signature: 2015/12/01 22:56:56	
SIOS		
🔊 Computer	Next > 5	Cancel
式 Profile/preset	Smart Image properties Driver properties Add image Database information Delete image(s) Image properties	
;≠ Utilities	Output: 8 Warning(s) - 1 Error(s)	•
🚱 Settings	<pre>[20/08/2018 - 17:59:02] Displaying smartimage by Categorie: '1' items </pre>	
Ready		NUM

When you selected a SmartImage, click on the "Next >" button ⁵ (or double-click on it) to edit its properties as its description or to add more details (specific revision ...) and click on the "Save" button to save your modifications:

Reployr	ment Suite Console
SDS™ SmartIma SmartImage informa	
Description PNP	
🗖 Smart Image Pro	
Description	SmartImage From Dell Inc Inspiron 3847 - test migration - 01122015
Article code	
Image linked	Dell Inc Inspiron 3847 - test migration - 01122015
Size (MB)	14826.00
Language	French
Signature	2015/12/01 22:56:56
Rank	1
Smart Image Prope	rties
	< <u>B</u> ack Save Cancel



## **Deleting SmartImage(s)**

- 1. Click on the "SmartImages" tab
- 2. Click on the "Delete SmartImage(s)" operation
- 3. Select the images to delete by clicking the check box next to each image to be deleted ³. If you don't see a SmartImage you recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button 4

🛃 SDSC - V: 3.0.0.264 File View Help			
📼 🖷 🔤 😭 🚺			
SmartImages Operations	Deployment Suite Console		softthinks
Delete SmartImage(s)	Welcome to SDS Console Delete Image Wizard Please select image(s) to delete		
Database Database 'LOCAL' - BLEU (SDS17.0.1)	Description	Language	Image associated
🗄 🗟 Applications	SmartImage From Acer - Aspire SW5-011 - Cp7 - classic - multicomptes - 31/10/2014	French	Acer - Aspire SW5-011 - Cp7 - classic - multicomptes - 31
	SmartImage From Acer - Aspire V5-472 - Win8.1x64 - Test Migration - 14042014	French	Acer - Aspire V5-472 - Win8.1x64 - Test Migration - 1404
🖶 🚣 Images	SmartImage From Alienware - Alienware X51 - Cp7 - classic -14/09/2015 - Test Migration	French	Alienware - Alienware X51 - Cp7 - classic -14/09/2015 -
🗐 🏊 Smart Images	SmartImage From Dell Inc Inspiron 3847 - test migration - 01122015	French	Dell Inc Inspiron 3847 - test migration - 01122015
🦧 SmartImage From Acer - Aspire SW5-011 - Cp7 - classic - mult	SmartImage From Dell Inc Inspiron 5758 - cp7 - classic - 17112015	French	Dell Inc Inspiron 5758 - cp7 - classic - 17112015
🧟 SmartImage From Acer - Aspire V5-472 - Win8.1x64 - Test Mig 👻	SmartImage From Dell Inc Inspiron 5758 - Cp7 - Test Migration - 01/12/2015 SmartImage From Dell Inc Inspiron N5110 - Cp7 - 22/02/2016 - Migration	French French	Dell Inc Inspiron 5758 - Cp7 - Test Migration - 01/12/21 Dell Inc Inspiron N5110 - Cp7 - 22/02/2016 - Migration
4	SmartImage From Dell Inc Inspirori No 10 - Cp7 - 222/02/2010 - Migration		Dell Inc Inspiron No 10 - Cp / 22/02/2016 - Migration Dell Inc Inspiron One 2330 - MAJ Win10 - 4 account -
Database	SmartImage From Dell Inc Inspiron One 2330 - test migration - 4 accounts - 03/10/2014	French	Dell Inc Inspiron One 2330 - test migration - 4 accounts
	SmartImage From LENOVO - 80FF - Test migration - Cp7 - 05/11/2015	French	LENOVO - 80FF - Test migration - Cp7 - 05/11/2015
Applications	SmartImage From TOSHIBA - SATELLITE C55-A-1N2 - Test Migration - 1 account - 06112014	French	TOSHIBA - SATELLITE C55-A-1N2 - Test Migration - 1 a
🛃 Drivers	SmartImage From TOSHIBA - Satellite L670 - Cp7 - 22/02/2016 - Migration	French	TOSHIBA - Satellite L670 - Cp7 - 22/02/2016 - Migration
🐲 Images			
🥪 SmartImages			
SIOS			► F
1 Utilities		< <u>B</u> ack	Next >
Contract Settings	Smart Image: SmartImage From Acer - Aspire SW5-011 - Cp7 - classic - multicomptes - 31/10/2014 D	atabase inf	ormation Delete SmartImage(s) Image propertie
Death			NUM

5. The wizard will confirm once the Smart Image(s) selected will have been deleted:

Reployment Suite Console		soft <mark>thinks</mark>
Welcome to SDS Console Delete Image Wizard Please wait during the image destruction process.		
Image(s) was successfully deleted from the selected database!		
	< Back	Einish Cancel

**Note**: Deletion is permanent. There is no method to undo a delete. Be careful when selecting SmartImages for deletion and review them.

# BIOS

BIOS components are similar to application packages except that they are executed when the system is first booted to the deployment server and DeployJB is launched.

If DeployJB finds any components that are designated in the <profile>.selector.ini file, those components are executed prior to deployment or factory diagnostics. The BIOS components must be 32 bit applications and must be compatible with the WinPE environment. Any operation that must occur before the beginning of deployment could be accomplished using this feature. It was primarily designed to allow electronic assembly (BIOS flash, DMI flash, firmware updates, and PATCH ^(SDS18.0)) prior to factory diagnostics and deployment.

You can explore the BIOS Components of your database by clicking on the "BIOS" tab ¹, or directly on the "BIOS" object in the tree-view ²:

SDSC - V: 3.0.0.272		- • ×
File View Help		
📼 🖷 🚔 🚹 🚺		
BIOS	Reployment Suite Console	soft <mark>thinks</mark>
Operations Add BIOS		
Delete BIOS Export BIOS	SDS BIOS computer properties Please select BIOS for information or edition capabilities	
Database	Description Type OS Language Atticle code	
Database 'LOCAL' - BLEU (SDS17.0.1)	testPatchEN_PATCH_Multi_English	
⊕	testPatchFR PATCH Multi French	
	testBIOS BIOS Multi Multi	
🗈 🚠 Smart Images 💦 🙎		
e BIOS		
ia BIOS □		
testPatchEN		
testPatchFR		
Database		
Applications		
Drivers	Details	
	Path: <u>Z\SDKDB\BIOS\BIOS\BIOS\000001</u> Command line: copyroms.bat	
Search Images	Size: 0.00 MB	
SmartImages	Reboot computer: No	
m BIOS		
Computer	< Back Next >	Cancel
Rofile/preset	Smart Image properties Application properties Database information BIOS properties Profile: Win8x64gen Delete Profile/Preset Profile/preset	t properties
€ Utilities	Output: 1 Warning(s) - 2 Error(s)	
Settings		* *
Ready		NUM

When you select a BIOS Component in the list ³, you will see all of its details below ⁴, including its path that you can open by clicking on the link ⁵.

## Click on the "Next >" button 6, or double click on the application in the list, to edit its properties:

<i>©</i> C	)eployme	ent Suite Console	
	Console BIOS p	properties	
BIO	S settings		
Desc	cription	testPatchEN	
Com	mand line	copyroms.bat	
Туре	e	РАТСН	
Lang	juage	English	
🗖 Supp	oorted OS	🕼 (Multi OS)	
S	pecific OS		
Rebo	pot	🔲 (No)	
Prior	ity	50	
Artic	le code		
Linki	ng information		
Size	(MB)	0.00	
	<b>ettings</b> are settings from th	ne ini file database for the selected item	
		< Back Save Cancel	

- **Description:** BIOS component description
- **Command Line:** Full command line used to start the component (executable and command line arguments). **Note**: This differs from the application interface where executable and command line were different fields
- **Type:** Category of the BIOS component (BIOS, Firmware, DMI utility, PATCH, etc...). The list of categories is configured using the Settings tool (See <u>BIOS settings</u>)
- Language: Language supported by the BIOS component. Only used by PATCH components during deployment.
- **Supported OS:** OS for which the BIOS component can be applied. Only used by PATCH components during deployment.
- **Reboot:** Select this setting to reboot the computer after the component is executed. If there are additional BIOS components at a lower priority, they will be executed after the system boots back to the deployment server.
- **Priority:** Ranging from 0 to 99, all applications are arranged in <profile>.selector.ini file and execute them in ascending priority value. The lowest number, 0, goes first. Useful if more than one BIOS version is required to be installed.
- Article Code: The part number used in the SPL file to designate the BIOS component. (Not commonly used.)
- **Linking information:** String linking the BIOS component to an image, a PNP or a Motherboard model. By this way, the BIOS component can be filtered automatically if this information is matching during the deployment.
- Size (MB): Size of the BIOS Component folder

Click on the "Save" button ¹ to complete the changes



## Adding a BIOS component ("Add BIOS" operation)

- 1. Click on the "BIOS" tab 1 or BIOS element 1 in the database tree-view
- 2. Click on « Add BIOS » operation 2
- 3. Select the location where your BIOS components are stored from the tree-view ³
- 4. Check the application(s) in the list below  $\checkmark$
- 5. Check the "Include all subdirectories" option ⁵ if there are subfolders inside your source folder that are required by the BIOS component. Else, only the folder selected in tree-view will be read
- 6. Click on the "Next >" button 6

SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔤 🎒 🚺		
BIOS	Deployment Suite Console	soft <mark>thinks</mark>
Operations 2		
Delete BIOS		
Export BIOS	SDS Console Add BIOS Wizard	
Database	Please select folder & application you want to add.	
⊡ 🐸 Database 'LOCAL' - BLEU (SDS17.0.1)	🕂 🕰 OS (C:)	
⊕∰ Applications ⊕∰ Drivers		=
	CopyROM 2 Patch	
🔒 🏊 Smart Images 👥 🚹	Drivers	
testBIOS		
	in - ☐ Program Files (x86)	
testPatchEN	De - De Programmes	+
testPatchFR	Application(s)	
	V Scopyroms2bat	
Dat ab ase		
Applications		
Drivers	Include all subdirectories	
by Images		
Smart Images	< Back Next > 6	Cancel
BIOS	Smart Image properties Application properties Database information BIOS: testPatchEN Add BIOS Profile: Win8x64gen Delete Profile/Preset	BIOS properti 🔹 🕨
Lomputer	Output: 2 Warning(s) - 2 Error(s)	
Profile/preset	[06/08/2018 - 14:33:57] Displaying BIOS by Categorie: '3' items [06/08/2018 - 14:33:58] Starting BIOS Addition wizard	*
€ Utilities	[06/08/2018 - 14:34:05] The BIOŠ scanning thread was started in 'C:\CopyROM 2 Patch', Please wait [06/08/2018 - 14:34:05] The application scanning thread is finished!	_
🚱 Settings		-
Ready		NUM

7. Pick the appropriate file from the list of executable files and click "Next>":

Deployment Suite Console		soft <mark>thinks</mark>
SDS Console Add Application Wizard Please select the BIOS item you want to add.		
Application(s)		
✓ Solution deploy.cmd		
	< Back Next >	<u>C</u> ancel

#### 8. Configure the BIOS component settings:

Deploy	ment Suite Console	soft <mark>thinks</mark>
SDS Console A BIOS informations	dd BIOS Wizard	
BIOS settings		
Description	BIOS00001	
Article code		
Command line	deploy.cmd	
Туре	BIOS	
Priority	50	
Reboot	🔲 (No)	
Size (MB)	0.52	
		<u>^</u>
		Ť
	< Back Next >	Cancel

- Description: A text description of the BIOS component.
- Article Code: The part number used in the SPL file to designate the BIOS component. (Not commonly used.)
- **Command Line:** Contains the executable and command line switches. **Note**: This differs from the application interface where executable and command line were different fields.
- **Type:** Category of the BIOS component (BIOS, Firmware, DMI utility, etc). The list of categories is configured using the Settings tool (See <u>BIOS settings</u>)
- **Priority:** Ranging from 0 to 99, all applications are arranged in <profile>.selector.ini file and execute them in ascending priority value. The lowest number, 0, goes first. Useful if more than one BIOS version is required to be installed.
- **Reboot:** Select this setting to reboot the computer after the component is executed. If there are additional BIOS components at a lower priority, they will be executed after the system boots back to the deployment server.



# **Deleting BIOS components ("Delete BIOS" operation)**

- 1. Click on the "BIOS" tab 1 or on the "BIOS" element in the Database tree-view
- 2. Click on the « Delete BIOS » operation
- 3. Select all the BIOS components you wish to delete in the list ³. If you don't see a component you recently added, press F5 to refresh the list contents.
- 4. Click on the « Next > » button  $\bigcirc$ :

🞯 SDSC - V: 3.0.0.272		
File View Help		
📼 🖷 🚘 🌰 🔽 🚺		
BIOS	C Deployment Suite Console	soft <mark>thinks</mark>
Operations		
Add BIOS 2		
Delete BIOS Export BIOS	Welcome to SDS Console Delete BIOS Wizard	
·	Please select BIOS to delete	
Database	Description Type Article code	3
🖃 🐸 Database 'LOCAL' - BLEU (SDS17.0.1)		
	CopyROM 2 Patch PATCH EestBIOS BIOS	
	testPatchEN PATCH	
E Carlinges	TestPatchFR PATCH	
BIOS		
BIOS		
testBIOS		
- PATCH		
CopyROM 2 Patch		
testPatchEN		
testPatchFR		
j Computer		
Dat ab ase		
Applications		
Drivers		
🧼 Images	< Back Next > 4	Cancel
Smart Images		Cancer
BIOS	Database information BIOS properties Delete BIOS	
Nomputer	Output: O Warning(s) - O Error(s)	
	<pre>[06/08/2018 - 14:39:26] Updating database component information, please wait [06/08/2018 - 14:39:30] Starting BIOS image properties wizard</pre>	*
Profile/preset	[06/08/2018 - 14:39:30] Displaying 'CopyROM 2 Patch' BIOS properties	
= Utilities	[06/08/2018 - 14:39:33] Displaying BIOS by Categorie: '4' items	
	[06/08/2018 - 14:39:36] Starting BIOS deletion wizard	
🚱 Settings		-
Ready		NUM

5. A message will confirm you when the BIOS components selected will have been deleted

**Note**: Deletion is permanent. There is no method to undo a delete. Be careful when selecting BIOS components for deletion and review them.



# Exporting BIOS components ("Export BIOS" operation)

- 1. Click on the "BIOS" tab or on the "BIOS" element in the Database tree-view
- 2. Click on the « Export BIOS » operation 2
- 3. Select the BIOS components you wish to export in the list ³. If you don't see a component you recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button  $\checkmark$

👹 SDSC - V: 3.0.0.272			
File View Help			
📼 🖷 🔤 🎒 🚺			
BIOS	🖑 Deployment Suite Console		soft <mark>thinks</mark>
Operations			
Add BIOS Delete BIOS			
Export BIOS	Welcome to SDS Console Export BIOS Wizard		
	Please select BIOS to export		
Database	Description Priority Article code		3
Applications	▼ testBIOS 50		
	testPatchEN 50	•	
🗐 🚋 🚢 Images	testPatchFR 50		
🗊 🚵 Smart Images			
ia			
Database Database			
Applications			
🚽 Drivers			
🦢 Images			
🍣 SmartImages			
🚃 BIOS		< Back Next >	Cancel
Computer	Database information BIOS properties Export BIOS		
Profile/preset	Output: 0 Warning(s) - 0 Error(s)		4
tilities	[10/08/2018 - 15:55:18] Starting BIOS export wizard [10/08/2018 - 15:55:19] Displaying BIOS: '3' items		
🚱 Settings			-
Ready			NUM

5. Select the destination folder ⁵ where the ZIP files will be created and click on the "Next >" button

Reployment Suite Console		soft thinks
Welcome to SDS Console Export BIOS Wizard Please select export folder		
Bureau Bibliothèques Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole Gonsole		5
	< Back Next >	Cancel

# Computer

softthinks...

This Database item allows computers management. By default, the associated view will be empty and no operation will be available. If you need this feature please ask to your contact at Softthinks.

When this feature is enabled, you can explore the Computers of your database by clicking on the "Computer" tab ¹, or directly on the "Computer" object in the tree-view ²:

SDSC - V: 3.0.0.272		- • •
File View Help		
💷 🖷 🚵 🚺		
Computer	Deployment Suite Concele	softthinks
Operations	Console Deployment Suite Console	
Add computer		
Delete computer	SDS Console computer properties	
	Please select computer for information or edition capabilities	
Database	Name Site Model MAC Address	3
Butabase 'LOCAL' - BLEU (SDS17.0.1)	<pre></pre> <pre></pre> <pre></pre> <pre>//doc/ ##ic /docs </pre> <pre></pre> <pre>//docs </pre> <pre>//docs </pre> <pre>//docs </pre> <pre>//docs </pre> <pre>//docs </pre>	
🗐 🏭 Images		
🗄 📥 Smart Images		
BIOS		
iaia computer Type>		
Owner Last Name>		
⊕ 🔄 Profile/preset		
Database		
Applications		
Drivers	Details	
	Location: <computer site=""></computer>	
🧶 Images	Owner: <owner last="" name=""> - <owner first="" name="">     Model &amp; Serial: <computer model=""> - <computer serial=""></computer></computer></owner></owner>	
🍣 SmartImages	Informations: <computer information=""></computer>	
BIOS		
🔊 Computer	<pre>&lt; Back Next &gt;</pre>	Cancel
Profile/preset	Database information Computer properties	
tilities	Output: 2 Warning(s) - 0 Error(s)	
Settings	<pre>F16/08/2018 _ 10:12:441 Disnlaving database Drofile/preset: '10' items {</pre>	•
Ready		NUM

When you select a computer Component in the list  3 , you will see all of its details below  4 .

Click on the "Next >" button 5, or double click on the computer in the list, to view the history of the operations made on this computer 6 (click on the recycle bin icon at its right to clear this history log), and edit its properties 7, beginning with the "Owner" information:

C.	Deployment	Suite Console	soft <mark>thinks</mark>
	DS Console computer p	properties	
0	Dperation Date (Year/Month/Day	- Time) Description	
1	Purge 2018/08/16 - 10:20:30	all events were removed	
L			
E	Owner		
	Name	<owner last="" name=""></owner>	
	First name	<owner first="" name=""></owner>	
	Title	<owner title=""></owner>	
	Site	<computer site=""></computer>	
	Subsidiary/Company	<computer company="" subsidiary=""></computer>	
	DOSI	<computer information=""></computer>	

- Name: Last name of the owner
- First Name: First name of the owner
- **Title:** Title of the owner

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- Site: Computer location
- Subsidiary/Company: Subsidiary / Company of the owner
- **DOSI:** User computer information (IP / Comment / Color / any information you need to store)

Scroll down to edit the "Identification" information:

Identification		
Model	<computer model=""></computer>	
Serial	<computer serial=""></computer>	
IMEI		
Туре	<computer type=""></computer>	-
Synchronize Compute	r 🔲 (No)	=
Allow 3G	🔲 (No)	
MAC Address	0000000000	
Type This is the computer typ	e	*

- Model: Computer model
- Serial: Computer serial number
- IMEI: Computer IMEI
- **Type:** Computer type
- Synchronize Computer: Synchronize the computer when connected
  - Allow 3G: Use the 3G connection if necessary to synchronize the computer
- MAC Address: Computer network card MAC Address

If you continue scrolling down you will see the applications linked to this computer:

	111111		*
	Туре	<computer type=""></computer>	
F	Synchronize Computer	🔲 (No)	
	Allow 3G	🔲 (No)	
	MAC Address	0000000000	
F	Linked applications		=
	Filezilla 🗙	Z:\SDKDB\APPS\MUL\DTA\000004APP.DTA	Ŧ
	nked applications hese are linked applications		A T
		< Back Save 8 Cancel	

Click on the 🔀 button in front of the linked application you want to remove, and click on the 主 button to add new linked applications from the list displayed (click on the "<Back" button to apply your selection or else on "Cancel" button):

Reployment Suite Console		soft <mark>thinks</mark>
SDS Console computer properties Applications dependencies		
Description	Language	OS 🔺
CAngel x64 1.2.9b	Multi	Windows 7 64 - Windows 8 64
7 7zipx86	Multi	Windows XP - Windows 7 - Windows 8
7zipx64	Multi	Multi
GoogleChrome	Multi	Multi
V Filezilla	Multi	Multi
Gimp	Multi	Multi
K-Lite Codec Pack Full	Multi	Multi
Libre Office	Multi	Multi
VLCx86	Multi	Windows XP - Windows XP Pro - Windows Vista - Windows 7 - Windows
VLCx64	Multi	Windows 7 64 - Windows 8 64
LiveUpdate	Multi	Windows 7 64 🗸 🗸
▲		•
		< Back Cancel
		Concer

Click on the Save button ³ to save your modifications.



# Adding a computer ("Add computer" operation)

- 1. Click on the "Computer" tab ¹ or Computer element ¹ in the database tree-view
- 2. Click on "Add computer" operation 2
- 3. Fill the computer information (please refer to computer edition explanations just above)
- 4. Click on the "Next >" button  $\bigcirc$

SDSC - V: 3.0.0.272				
File View Help				
🔤 🖷 🚔 🚺				
Computer		nt Suite Console		soft <mark>thinks</mark>
Operations 2		it suite console		in the second
Add computer				
Delete computer	SDS Console Add Con	nnuter Wizard		
	Computer information			
Database				
Database 'LOCAL' - BLEU (SDS17.0.1)	🗖 Owner			¥
⊕ - 🚮 Applications ⊕ - 🏣 Drivers	Name			
	First name			
E Smart Images	Title			
BIOS	Site			
Computer	Subsidiary/Company			
🛓 📑 Profile/preset	DOSI			
	Identification			
	Model			
Search Database	Serial			
	IMEI			
Applications	Туре			
Drivers	Synchronize Computer	(No)		
	Allow 3G	(No)		
🤹 Images	MAC Address	00:00:00:00:00		
🎥 SmartImages		'		
🛲 BIOS				* *
Computer			< Back Next >	
			< Back Next >	Cancel
Profile/preset	Computer properties Add com	puter		
ŧ=_ Utilities	Output: O Warning(s) - (	0 Error(s)		
Settings	[16/08/2018 - 10:12:42] [16/08/2018 - 10:12:44]	] Opening selected database: Z:\SDKDB ] Database opened by user: Admin		*
Ready				NUM



## Deleting a computer ("Delete computer" operation)

- 1. Click on the "Computer" tab 1 or Computer element 1 in the database tree-view
- 2. Click on "Delete computer" operation 2
- 3. Select the computer(s) you want to delete from the list ³. If you don't see a computer you recently added, press F5 to refresh the list contents.
- 4. Click on the "Next >" button  $\checkmark$

👹 SDSC - V: 3.0.0.272		
File View Help		
💷 🖷 🚔 🚺 🚺		
Computer Operations Add computer Delete computer 2	Welcome to SDS Console Delete Computer Please select computer(s) to delete	soft <mark>thinks</mark>
Database □	Name Site Model Mac address Group	
Applications	✓ «Owner Last Name> «Owner First Name> «Computer Site» «Computer Model> 00000000000 «Computer Type>	
🗄 🚢 Images		
🗄 🚵 Smart Images		
BIOS 1		
iain Computer Type>		
Computer Type>     Computer Type>     Computer Type>		
⊕ 🔄 Profile/preset		
Database		
Applications		
Drivers	< Back Next > 4	Cancel
🤩 Images	Database information Computer properties Delete computer(s)	
🧽 Smart Images	Output: 6 Warning(s) - 0 Error(s)	
Market BIOS	[16/08/2018 - 10:25:22] Starting Computer properties wizard	*
🔊 Computer	[16/08/2018 - 10:25:22] Displaying ' <pre>computer st Name&gt;' computer properties [16/08/2018 - 10:25:26] Starting computer deletion wizard [16/08/2018 - 10:25:27] Starting computer deletion wizard</pre>	
Profile/preset	<pre>[16/08/2018 - 10:25:29] Displaying database computer(s): '1' items [16/08/2018 - 10:25:29] Closing computer deletion wizard [16/08/2018 - 10:25:32] Starting computer deletion wizard</pre>	
1 Utilities	[10/00/2010 - 10.25.52] Starting computer deletion wizard	
Settings	· · · · · · · · · · · · · · · · · · ·	
Ready		NUM

5. A message will confirm you when the BIOS components selected will have been deleted

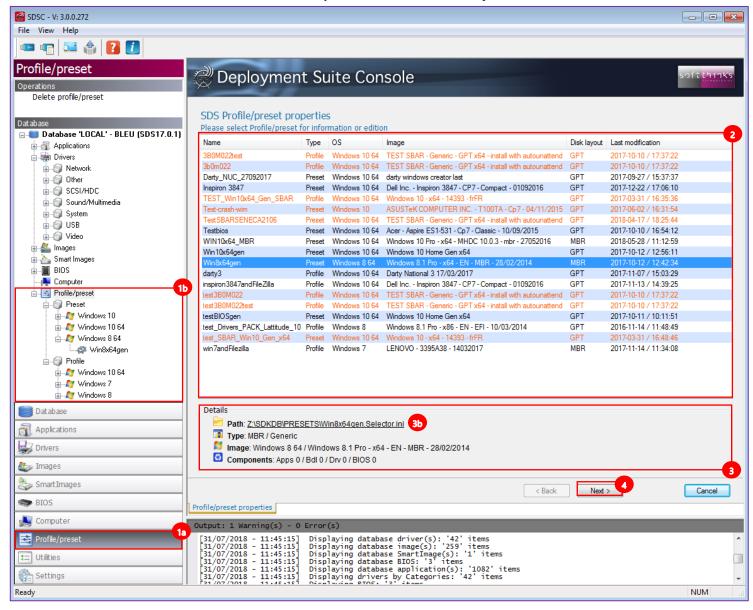
**Note**: Deletion is permanent. There is no method to undo a delete. Be careful when selecting BIOS components for deletion and review them.

# Profile/Preset

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This Database element has been introduced in SDS 18.0 in order to manage the profiles and presets created during deployment.

1. Click on the "Profile/Preset" tab¹⁰, or directly on the "Profile/Preset" object in the tree-view  10 :



2. Select the profile or preset in the list ³ you want to review or edit

**Hint:** As for images, the number of profiles and presets is growing systematically and so the SDS Console highlights in orange the old ones to help you making some cleanup.



- 3. Review the information in the "Details" area ³, including the path where it is stored that you can open by clicking on the link ³.
- 4. Click on the "Next >" button •, or double click on item in the list, to edit its basic information and the components associated to it (2 applications in our example below):

🤔 Deploym	nent Suite Console	soft thinks
SDS Console Profi Profile/preset informati	file/preset properties	
Basic information		
File name	Win8x64gen	
OS Version	Windows 8 64	
Image name	Windows 8.1 Pro - x64 - EN - MBR - 28/02/2014	
Туре	MBR / Generic	
SmartImage	-	
Full size	3623.70 MB	
Components		
Application	🛨 2 Applications	
App 0	Filezilla	
App 1		
Bundle	0 Bundle	
Driver	0 Driver	
Bios	🛃 0 Bios	
Profile PNP	0 PNP	
Application This is the full applicatio	ion list requested to be deployed.	۵. ۳
	Back	Save Cancel

- 5. Click on the 🗷 button 5 in the front of an application / bundle / driver /BIOS / Profile PNP to unlink it.
- 6. Click on the 🗄 button ⁶ in the front of a component category to add application / bundle / driver / BIOS / Profile PNP.
  - a. For a Profile PNP, you will be asked to enter the PNP ID  60 :

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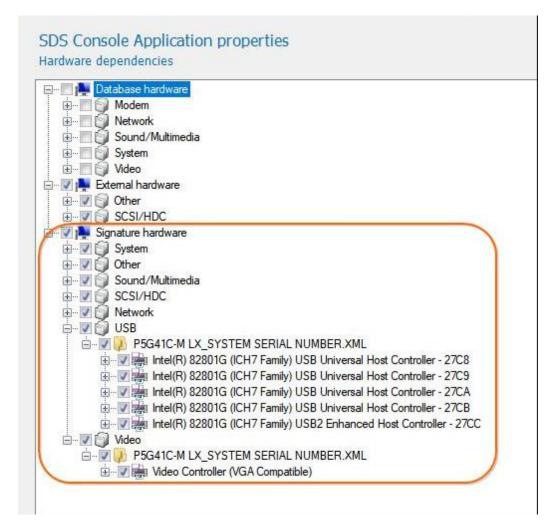
Or, since SDS 19.0, you can select a PNP definition file you have created previously through Ctrl+F9 keystroke on the device ⁶⁹:

Please fill informations about the new Pl	IP dependency to add
PNP id	
Lenovo Y53-70_347550720203	7.xml 🔪



Reployment Suite Console	S of C Granks
SDS Console Application properties Hardware cependencies	
Image: Signature hardware       6b         Image: Signature hardware       6b <t< td=""><td></td></t<>	
Import dependency Edit dependency	Ok Cancel





b. For any other type of component (such as application in our example below), you will be invited to select the elements you want to link from the list displayed ⁶⁰ to the current profile/preset:

neck all necessary objects to include					
Description	Language		Туре	Article code	
PCAngel x64 1.2.9b	Multi	Windows 7 64 - Windows 8 64	Undefined		
7zipx64	Multi	Multi	Undefined		
GoogleChrome	Multi	Multi	Undefined		
🗸 Filezilla	Multi	Multi	Undefined		
Gimp	Multi	Multi	Undefined		
K-Lite Codec Pack Full	Multi	Multi	Undefined		
Libre Office	Multi	Multi	Undefined		
VLCx64	Multi	Windows 7 64 - Windows 8 64	Undefined		
Windows8-RT-KB2764870-x64.msu	Multi	Windows 8 64	Microsoft KB		
Windows8-RT-KB2768703-x64.msu	Multi	Windows 8 64	Microsoft KB		
Windows8-RT-KB2771744-x64.msu	Multi	Windows 8 64	Microsoft KB		
Windows8-RT-KB2823516-x64.msu	Multi	Windows 8 64	Microsoft KB		
Windows8-RT-KB2792100-x64.msu	Multi	Windows 8 64	Microsoft KB		
Windows8-RT-KB2756872-x64.msu	Multi	Windows 8 64	Microsoft KB		
Windowe 8-RT-KR2761094-y64 meu	Multi	Windows 8 64	Microsoft KR		

**Note:** The elements already linked appear as preselected (as "Filezilla" in our example). If you unselect them they will be removed from the list of the elements linked.



# Deleting a profile/preset ("Delete profile" operation)

In order to delete one or more profile/preset, click on "Profile/Preset" tab¹, or on "Profile/Preset" node¹ in the database arborescence, and then "Delete profile/preset" operation². Select the profile(s)/preset(s) you want to remove from the database in the list on the right³ and click on "Next >" button⁴:

👹 SDSC - V: 3.0.0.272						
File View Help						
📼 🖷 🔤 🎒 🚺						
Profile/preset	Deployment	Suit	te Cons	ole		soft <mark>thinks</mark>
Operations Delete profile/preset		Jun				
Delete profile/preset	Welcome to SDS Console	Doloi	o Drofilo/Dro	prot		
Database	Please select profile/preset to de		e riolle/rie	Set .		
🖃 📒 Database 'LOCAL' - BLEU (SDS17.0.1)						
🗄 🚽 🔂 Applications	Name	Туре	OS	Image name		
🕀 🚛 Drivers	🔲 3b0m022	Profile	Windows 10 64	TEST SBAR - Generic - GPT x64 - install with autounattend		
🗄 🚣 Images		Profile	Windows 10 64	TEST SBAR - Generic - GPT x64 - install with autounattend		
🗄 🏊 Smart Images		Profile		Darty National 3 17/03/2017		
BIOS		Preset		darty windows creator last		
Computer	Inspiron 3847	Preset		Dell Inc Inspiron 3847 - CP7 - Compact - 01092016		
	inspiron3847andFileZilla	Profile		Dell Inc Inspiron 3847 - CP7 - Compact - 01092016		
	Test-crash-wim	Preset	Windows 10	ASUSTeK COMPUTER INC T100TA - Cp7 - 04/11/2015		
Database		Profile		TEST SBAR - Generic - GPT x64 - install with autounattend		
Applications		Profile		TEST SBAR - Generic - GPT x64 - install with autounattend		
SW/	test_Drivers_PACK_Lattitude_10		Windows 8	Windows 8.1 Pro - x86 - EN - EFI - 10/03/2014		
Drivers		Preset		Windows 10 - x64 - 14393 - frFR		
		Profile		Windows 10 - x64 - 14393 - frFR		
🥸 Images		Preset		Acer - Aspire ES1-531 - Cp7 - Classic - 10/09/2015		
Smart Images		Preset		Windows 10 Home Gen x64		
Sinartimages		Preset	Windows 10 64	TEST SBAR - Generic - GPT x64 - install with autounattend Windows 10 Pro - x64 - MHDC 10.0.3 - mbr - 27052016		
BIOS		Preset Preset		Windows 10 Hone Gen x64		
	win Tuxt64gen	Profile	Windows 70 64 Windows 7	LENOVO - 3395A38 - 14032017		
Computer				Windows 8.1 Pro - x64 - EN - MBR - 28/02/2014		
Rrofile/preset		Tieset	WINDOWS 0 04	Windows 0.1110 *X04 * EN * MDIX * 20/02/2014		
;= Utilities				< Back	Next >	Cancel
Settings	Database information Profile: Win8x	64gen	Delete Profile/Pr	Profile/preset properties		
Ready						NUM

The wizard will confirm you that your profile(s)/preset(s) have been deleted once the process has completed.

**Note**: Deletion is permanent. There is no method to undo a delete. Be careful when selecting applications for deletion and review them before continuing.

# Utilities

## General

### Create Deployment USB stick

This tool offers you the ability to create a bootable deployment USB stick. If you already created one with a previous version of SDS, you will have to update it in order to benefit from all of the new SDS features and to be compliant with latest OS version.

You can either create a Boot Key or a Nomad Disk.

### Boot key

Create a boot key when you want to use SDS on a computer that doesn't support PXE boot.

- 1. Click on "Utilities" tab 💷, or directly on 📟 button in the toolbar 地 and go to step 3
- 2. Click on « Create deployment USB stick » operation 2

👹 SDSC - V: 3.0.0.272		
<u>F</u> ile <u>V</u> iew <u>H</u> elp	b	
📼 🖷 🔤 🎒 🚺		
Utilities	Depleyment Cuite Concele	softthinks
General	🦪 Deployment Suite Console	SOLUTINS
Create deployment USB stick		
Import SDSC package Update database components	SDS Console Deployment USB stick wizard	
USB stick report	Please select the removable media that should be used to create the bootable deployment	
Network	stick. PS: the media will be Completely cleaned, make sure you backed up your data	
Remote desktop	1) Choose a removable	
Wake on LAN	Disk:1 - Model: OAS' - Size:698.64 GB (UEFI compatible)	
Deployment files	Create SDS Nomad disk (Everything on device)	
Create SPL	Make it UEFI compatible media	
	Reload SDS Nomad disk license (Setup deployment license only)	
	Update SDS Nomad disk (Update modules and file structure) Planned deployment: 5	
Database		
Applications		
Drivers	2) Choose the deployment WIM	
anges Images	Boot image file name	
<u>(a</u>	DeploySDS_RS2_x64_HDDR_marco.wim	
SmartImages	DeploySDS_x64.wim	
Market BIOS	DeploySDS_X64_10586.wim	
📕 Computer		
🚔 Profile/preset		
ta 1a	< Back Next >	Cancel
🏠 Settings	Deployment USB stick wizard PXE report wizard Image properties	
Ready		NUM

- 3. Insert a blank USB stick (See <u>How to format a USB Flash Drive before converting it to a SDS USB Flash Drive</u> to format it) or the USB stick previously created and select it in the list **3**
- 4. Select the deployment image to use
- 5. Click on "Next >" button 5



7.

6. The process of creating the bootable flash drive can range from 2 to 10 minutes on average:

SDS Console Deployment USB stick wizard Please wait the end of the process	
Configuring the database deployment image choosed to the USB stick	
	< Bac
· · · · · · · · · ·	
completed, click on « Finish » button SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
Completed, click on « Finish » button ?: SDS Console Deployment USB stick wizard Please wait the end of the process The creation was successful, you could use your UFD device to deploy computers.	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	
SDS Console Deployment USB stick wizard Please wait the end of the process	

#### Nomad disk

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Instead of using a server, you install the software on an external hard drive that we call a Nomad Disk.

To create your Nomad Disk, follow the same process as for the Boot Key, except that you have to check the options
 « Create a SDS Nomad disk (Everything on device...) » and « Make a UEFI compatible device » (if needed since all USB
 media are not UEFI compliant), and enter the number of licenses you want installed (between 1 and 50):

SDS Console Deployment USB stick wizard Please select the removable media that should be used to create the bootable deployment stick. PS: the media will be completely cleaned, make user you backed up your data		
1) Chose a removable       Dak:-1. Model Coxer Veyage: '-Sze1511GB     Image: Sist None disk CoverVeyage: '-Sze1511GB       Coxere Sist None disk CoverVeyage: '-Sze1511GB     Image: Sist None disk CoverVeyage: Sist None disk CoverVeyage: Sist None disk CoverVeyage: Sist None disk CoverSist None disk Covers Cover and the flucture. ]       Plented deployment (1-50), 's		
2) Choose the deployment WIM Boot maps file name DeployMode_x88 wim CaptoyMode_x04 www		
	< Back Next >	Cancel

Note: Do not use USB Hard Drive larger than 2TB.

2. When you will have reached the deployments limit on a **nomad disk**, you will get the message below and will be able to add more licenses by choosing "Reload SDS Nomad disk license" **3**.



**Note:** You can check the number of deployment available by plugging your USB Stick into the server and selecting « **USB Stick Report** » (See <u>USB stick report</u>).

3. You can also update the components (in case of new SDS version) in your Nomad Disk through the "Update SDS





#### Import SDSC package

This feature offers you the ability to import a package (applications and drivers packages typically) into the database. Please see <u>Importing application(s) ("Utilities\Import SDSC Package")</u>.

#### Update database components

This utility will update your database components from a FTP containing the reference database (See <u>How to prepare the</u> <u>database for the "Update database components" feature</u>).

- 1. Click on the "Utilities" tab 1, or directly on the 🗳 button located in the toolbar 2 and go to step 3
- 2. Click on the "Update database components" operation ²:

👹 SDSC - V: 3.0.0.272			
<u>F</u> ile <u>V</u> iew <u>H</u> elp	16		
📼 🖷 🔤 🎒 🚺	Τ		
Utilities	Reployment Suite Con	sole	soft thinks
General		3010	
Create deployment USB stick Import SDSC package			
Update database componer 2	Welcome to SDS Console FTP update		
USB stick report	Select the database and FTP you want to use.		
Network	Description	Location	Туре
Remote desktop Wake on LAN	BLEU (SDS17.0.1)	Z:\SDKDB	LOCAL
Deployment files			
Create SPL			
Database			
Applications			
🚽 Drivers			
🌉 Images	Description Host		
쵫 Smart Images	Description site no-ip.com		
BIOS			
📕 Computer			
Profile/preset			0
<b>‡</b> ⊒ Utilities		< <u>B</u> ack <u>N</u> ext >	5 <u>C</u> ancel
🚱 Settings	Tests management SPL creation wizard Wake on lan wiza	rd Deployment USB stick wizard PXE report wizard Remote de	sktop wizard FTP update wizard
Ready			NUM

- 3. Choose the database you wish to update ³
- Select the FTP site where you put the reference database
   Hint: The FTP sites are configured in <u>Database settings</u>
- 5. Click on the "Next >" button 5



6. Select the components you wish to update:

Reployment Suite Console	soft <mark>thraks</mark>
Welcome to SDS Console FTP update Check or uncheck options you would like to use to update your database components.	
BASE LINE: - DATE: 10:32:10-25/08/2014	
✓ Update items with version information	
Update items without version information	
I Skip script xml	
I Skip language files	
✓ Skip deployment settings files	
I Skip skin files	
< Back Next >	Cancel

7. Review and modify the files if necessary (checked and displayed with green background) which have been preselected based on your component selections from the previous step and click on the "Next >" button:

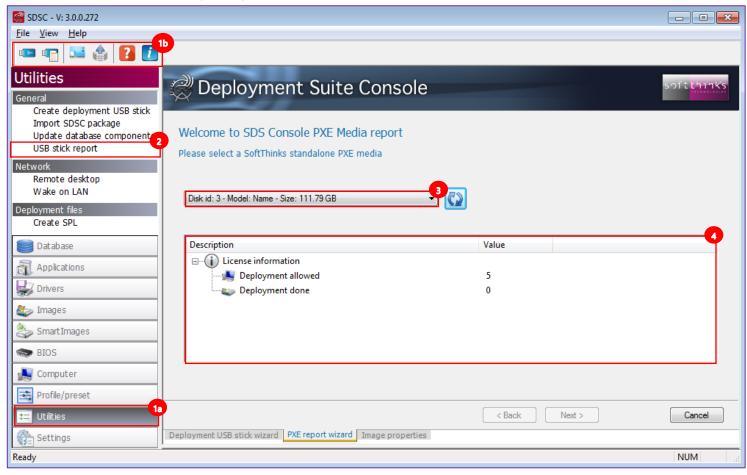
is the preview of items which will be updated, components not in	1.1.01.01				
untouched. Please review items to udpate and click next when pa	rsing is done.				
	,				
iles	Remote Version	Remote CRC	Local Version	Local CRC	
Deploy\Windows\System32\Modules\Migration\SDSMoveFile.exe	1.3.0.3	f0ead46c	100 C		
Deploy\Windows\System32\Modules\Migration\SDSRepStore.exe Deploy\Windows\System32\Modules\SDSConfiguration.dll	1.0.4.1 1.0.3.8	ce99ef51	-	M 0.50	
Deploy\Windows\System32\Modules\SDSCopy.dll Deploy\Windows\System32\Modules\SDSCopy.dll	1.0.3.8	ac651ea7 af813f21	1.0.3.3 1.0.0.68	f4ea6a56 af813f21	
Deploy/Windows/System32/Modules/SDSDsCopy.dll Deploy/Windows/System32/Modules/SDSDiskConfig.dll	1.0.0.49	9b99edae	1.0.0.49	9b99edae	
Deploy/Windows/System32/Modules/SDSDiskCeation.dll	1.0.0.119	8d3cc963	1.0.0.115	7070a647	
Deploy/Windows/System32/Modules/SDSEnd.dll	1.0.0.65	0bb3b364	1.0.0.64	cc38ea4f	
Deploy/Windows/System32/Modules/SDSFileBackup/SDSBackupMigratio.	1.0.0.97	038e55cc	1.0.0.81	a1a2a37f	
Deploy\Windows\System32\Modules\SDSFileBackup\STFileBackupAPI.dll	3.0.10.0	81d919d2	3.0.4.0	30857024	
Deploy\Windows\System32\Modules\SDSHDDDiag.dll	1.0.0.40	0549701e	1.0.0.31	48ac1961	
Deploy\Windows\System32\Modules\SDSImageSelection.dll	1.0.0.58	087d4a4e	1.0.0.58	087d4a4e	
Deploy\Windows\System32\Modules\SDSImageTools.dll	1.0.4.8	70fbb76a	1.0.3.26	ac63dbd6	
Deploy\Windows\System32\Modules\SDSImaging.dll	1.0.0.37	c8ffe22b	1.0.0.33	bd3769ae	
Deploy\Windows\System32\Modules\SDSInit.dll	1.0.0.46	6a918879	1.0.0.41	86a83b97	
Deploy\Windows\System32\Modules\SDSLauncher.dll	1.0.0.30	b101baa2	1.0.0.30	b101baa2	
Deploy\Windows\System32\Modules\SDSMenu.dll	1.0.0.54	6230c807	1.0.0.53	886b5add	
Deploy\Windows\System32\Modules\SDSMigrationTools.416	1.0.4.16	5b56e42a	10 A		
Deploy\Windows\System32\Modules\SDSMigrationTools.dll	1.0.4.18	0e2dbbc1	1.0.3.39	426cad88	
Deploy\Windows\System32\Modules\SDSProfiles.dll	1.0.0.47	da704348	1.0.0.47	da704348	
Deploy\Windows\System32\Modules\SDSRecoverySolution.dll	1.0.0.39	4640979b	1.0.0.39	4640979b	
Deploy\Windows\System32\Modules\SDSRestore.47	1.0.4.7	f7ab5ee7			
Deploy\Windows\System32\Modules\SDSRestore.dll	1.0.4.8	8e050ad0	1.0.3.9	5b68b733	
Deploy\Windows\System32\Modules\SDSRestore.exe	1.0.4.1	36abfc5e	1.0.0.2	eb07108a	
Deploy\Windows\System32\Modules\SDSSMISelection.dll	1.0.0.32	d3de0c51	1.0.0.32	d3de0c51	



#### USB stick report

Use this utility to check the number of deployments available on a Nomad Disk.

- 1. Click on the "Utilities" tab  $\mathbf{10}$ , or click directly on the  $\mathbf{10}$  button in the toolbar  $\mathbf{10}$  and go to step 3
- 2. Click on the "USB stick report" operation 2



- 3. Insert your Nomad Disk, if it is not yet the case, and select it in the list ³. If your Nomad Disk doesn't appear in the list, click on the witton to refresh the list.
- 4. Check the license information 4



## Network

### Remote Desktop

This utility gives you the ability to view the activity on all of the devices connected to the server and to remotely manage them.

- 1. Click on the "Utilities" tab 💶, or directly on the 🔤 button located in the toolbar 地 and go to step 3
- 2. Click on "Remote desktop" 2
- 3. You will see all the PCs connected to the server in real time ³

SDSC - V: 3.0.0.272		
<u>F</u> ile <u>V</u> iew <u>H</u> elp		
📼 🖷 🔤 🚺 🚺		
Utilities	Deployment Suite Console	soft <mark>thinks</mark>
General		
Create deployment USB stick Import SDSC package		
Update database components	Welcome to SDS Console Remote desktop connection	
USB stick report	Select the computer you want to connect to	
Network		
Remote desktop 2 Wake on LAN		
Deployment files Create SPL		
Database Database		
Applications	192.168.3.24	
Drivers	9	
🤹 Images		
🥞 Smart Images		
BIOS	Auto refresh computer list (sec) 20 6 Refresh 5	Manual connection
🔊 Computer	✓ Display remote desktop thumbnails 7	10
Profile/preset	Image         192         168         1         192         168         1         254           8         8	
	a Close	
🚱 Settings	BIOS settings Users management Tests management SPL creation wizard Wake on lan wizard Deployment USB stick wizard Remote d	esktop wizard N/ + +
Ready		NUM

Hint: You can refresh this view 4 on demand by clicking on the "Refresh" button 5, or automatically every x seconds 6, and choose to display or not display the thumbnails 7. You can also filter the clients to display through an IP range 8



(C)	Softthinks Deployment Suite				softt	าเ่าหัร	
			ID a				
		Liste	e déroulante Choix 1				
	Script Automatic Repair	Script Repair	Script Refurb		Script OEM		
?	MAC: 64006A0936ED	LINK: 1000 Mbps - Rea	Itek Ethe	•	(		

**Hint:** Right click on the remote display tab ⁽⁹⁾ to display a popup menu which allows you to choose a more appropriate aspect ratio, change the colors depth (16 / 256 / 64K / 16M), capture the screen and synchronize clipboard text:

Remote desktop wizard Server: 192.168.3.25 Output: 2 Warning(s) - 1 Error(	Close Colors			
[16/11/2017 - 17:09:26] Refre [16/11/2017 - 17:09:26] Refre	Aspect ratio	100%		^
[16/11/2017 - 17:09:26] Error: [16/11/2017 - 17:09:26] Refre	Capture screen	90%	eter (object null)	
[16/11/2017 - 17:09:26] Refre [16/11/2017 - 17:09:32] Start	Synchronize clipboard text	80%		
	a remote desktop view g to '192.168.3.25'	70%		-
•	III	60%		•
		50%	NUM	

4.	Click on the device	9	you wish to control remotel	y and	you will obtain its screen contents replicated	:t
----	---------------------	---	-----------------------------	-------	------------------------------------------------	----



5. You can also connect to a device manually by clicking on the « Manual connection » button¹¹ and entering the elements required:

Reployment	: Suite Console	soft <mark>thinks</mark>
Welcome to SDS Consol Manual connection	le Remote desktop connection	
Please fill all info IP address: Port: Login: Password:	192         168         1         99           5159	
		Connect Cancel



#### Wake on LAN

Use this utility to manage the Wake on LAN feature for devices which support it.

- 1. Click on the "Utilities" tab **1**
- 2. Click on "Wake on LAN" 2

SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔜 🛃 🚺		
Utilities	🖉 Deployment Suite Console	soft <mark>thinks</mark>
General		and the second
Create deployment USB stick Import SDSC package		
Update database components	Welcome to SDS Console Wake on Ian Wizard	
USB stick report	Add MAC address or select MAC address file	
Network	MAC address file	
Remote desktop		
Wake on LAN	MAC address	+
Deployment files		
Create SPL		
Dat ab ase		
Applications		
😺 Drivers		
🧶 Images		
Smart Images		
BIOS	1	
Normal Computer		Ŧ
Profile/preset	Save list	
💶 Utilities	< Back Next >	Cancel
🚱 Settings	Database information Deployment settings BIOS settings Users management Tests management SPL creation wizard Wake on lan wizard	Deployment 🔹 🕨
Ready		NUM

3. Click on the "Input File" field 3 and browse for the file containing the MAC addresses to add:

Ouvrir	S (C:) • • • • •	ercher dans : OS (C:)
Organiser 🔻 Nouveau dossie		:= 🔹 🚺 🔞
OS (C:)      SRECYCLE.BIN      APP Export      APP Export      dell      Documents and Settings      Drivers      Intel      OEM Tools      PerfLogs      Porgram Files (x86)	Nom SRECYCLE.BIN APP Export apps dell Documents and Settings Drivers Intel OEM Tools PerfLogs	Modifié le 04/12/2015 17:32 22/08/2018 15:58 09/11/2015 18:15 04/12/2015 17:54 14/07/2009 07:08 10/11/2015 02:24 09/11/2015 18:07 18/10/2017 13:07 14/07/2009 05:20
🛛 📗 ProgramData	Program Files (x86)	28/08/2017 14:36
Nom du fich	er : MAC f	



4. Or you can add manually a MAC address by clicking on the 🗈 button 4:

Deplo	oyment Suite	Console			soft <mark>thinks</mark>
	SDS Console Wake or				
MAC addre	ss file				
Input file					
MAC addre	SS				
5	× 00:11:22:33:44:55				
2 Save list	]				÷
			< Back	Next >	Cancel

5. To delete a MAC address, click on the dutton 5 in front of the MAC address you wish to delete.



## **Deployment Files**

### Create SPL

**Note:** SPLs are not commonly used any longer. They have been replaced with the ADF, Profile, and Preset files which are easily created directly from the source computers.

This utility generates SPL files containing information about what to automatically deploy to a specific model of computer. The SPL files are used for the automatic deployment of:

- Partition scheme,
- Tools used for enabling/disabling SDK features,
- Operating System,
- Smart Image,
- Applications,
- Drivers,
- Bundles,
- Security patches and updates,
- Tests to be run.
- 1. Click on the "Utilities" tab
- 2. Click on "Create SPL" 2
- 3. Select the Operating System ³
- 4. Select the image you want to deploy in the list 🗸 (filtered by the OS you selected)
- 5. Click on the "Next >" button 5

🞯 SDSC - V: 3.0.0.272			
File View Help			
📼 🖷 🔤 🎂 🚺 🚺			
Utilities	Reployment Suite Console		soft <mark>thinks</mark>
General Create deployment USB stick			
Import SDSC package			
Update database components	Welcome to SDS Console SPL Creation Wizard		
USB stick report	Select the Operating system and the image you want to deploy		
· ·			
Network Remote desktop	Windows 10 64		
Wake on LAN	Vinnen and an		4
	Description	Language	Article code
Deployment files	HP - HP Stream Notebook - cp7 - classic	French	Incomplete Uploading
Create SPL 2	Dell Inc Inspiron 13-7353 Redstone 2 Lucky	English	Incomplete Uploading
Satabase	Dell Inc Inspiron 3847 - Cp7 - 13012016	French	Incomplete Uploading
Dalabase	Windows 10 x64 14342 Fr EFI 01062016	French	error "winload.efi signed incorrectly" (0
Applications	Windows 10 - Familial x64 - EFI - MHDC 10.0.3 - 30/05/2016	French	Incomplete Uploading
	Dell Inc Inspiron 3847 - 19052017	French	Incomplete Uploading
Drivers	Windows 10 Entreprise - x64 - en - MSDN - MHDC 10.0.2	English	Incomplete Uploading
🌌 Images	ASUSTeK COMPUTER INC X555LAB - CP7 - classic - 11/09/2015	French	Incomplete Uploading
Indges	ASUSTEK COMPUTER INC X555LAB - 4 accounts - Cp7 -classic - 14/09/2		Incomplete Uploading
🍣 SmartImages	Dell Inc Inspiron 5758 - Cp7 - compact -24/05/2017     Dell Inc Inspiron 13-5368 - 11042016	French	Incomplete Uploading
BIOS	Alienware - Alienware X51 - test migration - 12042017	English French	Incomplete Uploading Incomplete Uploading
the	Dell Inc Inspiron 3847 - test migration - 10042017	French	Incomplete Uploading
Normal Computer	Delline. Inspirer 3047 (cathing allor 10042017)     Delline. Inspirer 10 5000 (cathing allor 10042017)	Faaltala	Issuelite Helestics
式 Profile/preset			
茸 Utilities			< Back Next > Cancel
🎼 Settings	Database information Deployment settings BIOS settings Users manageme	nt Tests managemen	t SPL creation wizard Deployment USB stick wizard NA
Ready			NUM



6. Select the recovery scenario and options ⁶ you would like to use:

Recovery from specific partition	
(No)	
500	
🗹 (Yes)	
🕼 (Yes)	
🔲 (No)	
Nothing	
✓ (Yes -> Percent size)	
GPT	
	ſ
	✓ (Yes)           ✓ (Yes)           ✓ (No)           Nothing           ✓ (Yes -> Percent size)

- **Recovery type:** Recovery scenario
  - o « No recovery »
  - o « Recovery from specific location »
  - o « Recovery from user partition »
  - « No Recovery solution, use only original image disk typology »

If you choose the « Recovery from specific location » scenario you will have to set the parameters relevant to the Recovery Partition (RP):

- Manual Size: « Yes » to force the size of the Recovery Partition to the « Size (MB) » value (else the size is dynamically estimated)
- Hide Boot Key: « Yes » to hide the message about the RP boot key
- **RP at disk end:** « Yes » to create the RP at the end of the disk
- Visible: « Yes » to make the RP visible
- **Brand used:** Customizes the interface of the restore solution for a brand (logo...). Default « nothing » in the absence of specific customization.
- Use percent value : « Yes » to set the relative size (%) / « No » for absolute size (not relevant for the « No Recovery solution, use only original image disk typology » scenario)
- **Disk Layout:** Layout (MBR/GTP) of the disk. Depends on the image selected and cannot be modified.

You can specify the partitions to create on the target disk during deployment in the Boot disk section vy by clicking on the button and by settings for each partition added its size (in % or in MB depending on « User percent value » parameter) and its file system:

	Boot disk		🛨 (
-	UP1	× 100% - NTFS	
	File system	NTFS	
	Size (%)	100	

On the RIS Server, the newly created SPL file must be placed in the following location:

• X:\SPL**S**XXXXXXXXX.SPL

sつ1**tthinks**…

**Note:** This transfer to the server can be an automated process. The transfer MUST be completed prior to deploying (PXE booting on the RIS server) the image to the PC.

After the SPL has been placed in the above location on the RIS server, the selectorSRV service will translate the file and output to the following locations based on the following conditions:

- Success:
  - X:\SPL\Success\SXXXXXXXX.SPL
  - X:\SPL\Success\SXXXXXXXXSDK
  - X:\Deploy\XXXXXXXXSelector.ini (Used for deployment)
  - X:\Deploy\XXXXXXXX.RSSelect.ini (Used for deployment)
- Error:
  - X:\SPL\Error\S00000000.SPL

The following outlines the deployment process:

- 1. Create SPL file.
- 2. Transfer SPL file to the RIS server.
- 3. Start RIS deployment (PXE boot).
- 4. Deployment tools will read DMI field and find matching deployment .ini files.
- 5. Display "Software List" for download with confirmation screen.
- 6. Deploy software image to recovery partition (RP).
- 7. Disconnect from server.
- 8. Deploy from RP to UP.
- 9. Test.
- 10. Shutdown.

Please refer to <u>How to edit SPL Files</u> for more details on SPL files contents.



## **Find components**

This new feature introduced in SDS 19.0 allow you to search for components of any type through their description (with wildcards):

🚥 🖷 🔚 🏩 🔁 🚺		
Utilities		
General Create deployment USB stick Import SDSC package Update database components USB stick report		
Network Remote desktop Wake on LAN		
Deployment files Create SPL		
Find components		
Filter: dell		
Case sensitive	Find	
Result         Type         Date         I           Dell Inc Inspiron 5537 - 2210         Image         2018/10/22 22:08:59         1	Language	
Semartimage         From Dell Inc         SmartImage         2019/06/14         20:36:46         I           Dell Inc Inspiron         5758         Image         2019/06/14         20:36:46         I           Dell Inc RS4 Gen Pro Skinny         Image         2018/07/09         14:49:52         I	English English	
Database		
Applications           Image: Contract of the second		Output: 0 Warning(s) - 0 Error(s)
Survers Images SmartImages		<pre>[03/10/2019 - 09:55:05] Closing boot image setting wizard [28/11/2019 - 13:34:22] '1' item(s) matching requested filter [28/11/2019 - 13:34:37] '4' item(s) matching requested filter [28/11/2019 - 13:35:01] '4' item(s) matching requested filter [28/11/2019 - 13:35:12] Starting database information dialog [28/11/2019 - 13:35:12] Starting database release 18.0 o' database information from 'E:\REMOTEI</pre>
BIOS		[28/11/2019 - 13:35:12] Updating database component information, please wait [28/11/2019 - 13:35:18] Starting application properties wizard [28/11/2019 - 13:35:18] Starting application properties wizard
Profile/preset		[28/11/2019 - 13:35:18] Starting application properties wizard [28/11/2019 - 13:35:18] Displaying 'APPO0003' application properties [28/11/2019 - 13:35:20] Starting driver properties wizard [28/11/2019 - 13:35:20] Displaying drivers by Categories: '7' items
Ettings		[28/11/2019 - 13:35:41]Starting BIOS image properties wizard[28/11/2019 - 13:35:41]Displaying 'BIOS00000' BIOS properties[28/11/2019 - 13:36:38]Updating database component information, done.
Ready		NUM

Once you found the component you were searching for, you can directly delete it, edit it, show it or copy it to another database through the contextual menu displayed when you right click on any item of the search results:

Filter: dell			Find
Result	Туре	Date	Language
Dell Inc Inspiron 553 SmartImage From Dell Dell Inc Inspiron 575 Dell Inc RS4 Gen Pro	Delete Edit Show Copy to >	2018/10/22 22:08:59 2019/06/14 20:36:46 2019/06/14 20:36:46 2018/07/09 14:49:52 Database	French English English English
< Database		Database release 18.	0.0



# Settings

## SDSC

### Database settings

You will find the database settings below:

- Database(s) opened at startup
- Known Database(s)
- o FTP Database update (See Update database components)

Click on the Settings tab $\checkmark$ and then on the Database settings item $\checkmark$	Click on the "Settings" tab	and then on the "Database settings" item	2 :
--------------------------------------------------------------------------------------------	-----------------------------	------------------------------------------	-----

SDSC - V: 3.0.0.272			
File View Help			
📼 🖷   🎫 🌰   💽 🚺			
Settings	Depley meant Cuite	Console	
SDSC	🖉 Deployment Suite	Jonsole	
Application settings			
BIOS settings	SDS Console Database settings		
Database settings Driver settings	These are databases loaded at startup or already known		
Image settings	Database(s) opened at startup		
Database	BLEU (SDS17.0.1) X (Reachable		
Boot image settings	🗏 Known Database(s)		
Deployment settings	BLEU (SDS17.0.1) X Opened	3	
NAS settings Test settings	🗏 FTP Database update		
Users management <u>t</u>	Site 1 Site 1	site	
	Host no-ip.com		
	Port 21		
Database	Login joe		
Applications	Password ****		
	Remote Path		
Drivers	Advanced options		
🤹 Images	Check automatically (No)		
Smart Images	Update automatically 🔲 (No)		
	Database		
SIOS		*	
Lomputer		*	
Profile/preset		Ok Cancel	
; ≇≕ Utilities			
Settings	Boot image settings Driver settings Application	settings BIOS settings Users management Tests management Database settings Image settings SP ()	
Ready		NUM	

You can enter several FTP sites for the database update feature by clicking on the 🛃 button 😏 and filling in those fields:

- Site <x>: FTP description
- **Host :** FTP address (domain name or IP)
- **Port:** FTP port (21 by defaut)
- Login/Passwor: FTP credentials
- Remote path: Remote path where is located the master database
- Advanced options
  - o Check automatically: « Yes » to automatically check for a new update
  - **Update automatically:** « Yes » to apply automatically an update
  - o Database: Database to update

To remove an FTP site, click on the **S** button in front of it.



# Image settings

When you look at the images list you might notice that some of those images have a specific background color. Those different background colors allow you to quickly identify which ones are default deployment images, which ones are multilingual and which ones are old.

You can customize those colors as well as the number of days after which you consider an image as old.

- 1. Click on the "Settings" tab  $\bigcirc$
- 2. Click on "Image settings" 2

SDSC - V: 3.0.0.272	
File View Help	
📼 🖷 🔤 🚺 🚺	
Settings SDSC Application settings BIOS settings Database settings Image settings Database Boot image settings	Deployment Suite Console Soft thinks SDS Console Image settings These settings are used to customize image presentation Image items Default image RGB (218, 232, 254)
Deployment settings	MLSP image RGB (19, 112, 171)
NAS settings	Days 1825
Test settings Users management	
Database  Applications  Drivers  SmartImages BIOS	
Computer	¢
Profile/preset	Cancel
Settings	Boot image settings Driver settings Application settings BIOS settings Users management Tests management Database settings Image settings SP ()
Ready	NUM ,

- 3. Click on the image type for which you want to change the background color (Default image in our screenshot) and select the new color.
- 4. Indicate the number of days after which you consider an image as old  $\checkmark$
- 5. Click on the "OK" to apply your changes



# Application settings

Click on "Settings" tab	and then on "Applications settings" 2:	
SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔤 🏠 🚺		
Settings	Deployment Suite Console	oft <mark>thinks</mark>
Application settings: 2 BIOS settings:	SDS Console Application settings	
Database settings	These settings are used to customize application presentation	
Driver settings		
Image settings	Application options	
Database	Check joliet structure 🔲 (No)	
Boot image settings Deployment settings	Application category	<u>.</u>
NAS settings	0 Communication devices & system components	
Test settings	1 Input devices	
Users management	2 Printer and Scanners	
Database Database	3 Display devices	
Applications	4 Sound devices	
1540/	5 Others	
🔛 Drivers	Remote desktop information	
🌌 Images	information IP address	
SmartImages		
BIOS		
🔊 Computer		* *
Profile/preset		
t= Utilities	Ok	Cancel
🦕 Settings	Add image Database information Delete image(s) Delete SmartImage(s) Deployment settings Boot image settings Driver settings Applica	tion setting 🚺 🕨
Ready		NUM

# Application options

Check the « Check Joliet structure » option to ensure that the directories containing applications are compliant to ISO9660 + Joliet. This is helpful when applications are stored on optical media.

# Remote desktop information

🗏 Remote desktop i	nformation	
informations	IP address- Manufacturer- Model- Serial- Chassis- State	-
informations	<ul> <li>✓ IP address</li> <li>✓ Manufacturer</li> </ul>	
	Image: Second	
	<ul> <li>✓ Chassis</li> <li>✓ State</li> </ul>	



# Application categories

softthinks...

An application category is used to define the type of application in the database. This is useful for organizing the database and makes sorting and searching by category easier. You may add new categories to the Application type and these will be available when creating or editing an application in the database.

1. Click on the 🗄 button ¹ to add an application category enter its name in the text field ¹:

Reployment	Suite Console	soft <mark>thinks</mark>
SDS Console Application s These settings are used to custo	-	
1 2	No) tegory settings Please fill the field about the new category requested Category OK Cancel	
Application category This is application category used t	to class application items	Cancel



2. The new category appears at the end of the list:

n Deploym	ent Suite Console	soft <mark>think</mark>	S
SDS Console Applica	ation settings		
These settings are used t	to customize application presentation		
Application options			
Check joliet structure	🗐 (No)		
Application category			÷
0	Communication devices _system components		
1	Input devices		
2	Printer and Scanners		
3	Display devices		
4	Sound devices		
5	Others		
6	× a new category		
Remote desktop info	ormation		
informations			
6			
		Ok Cancel	

**Hint:** Click on the **X** button in front of a category you added to delete it (you cannot remove predefined application categories).



# Driver settings

The driver settings are used to customize driver presentation.

- 1. Click on the "Settings" tab  $\bigcirc$
- 2. Click on the "Driver settings" operation

SDSC - V: 3.0.0.272		
File View Help		
📼 🖷 🔤 🏩 🚺		
Settings	Reployment Suite Console	soft thinks
SDSC		
Application settings BIOS settings	SDS Console Driver settings	
Database estimas	These settings are used to customize driver presentation	
Driver settings 2	These settings are used to customize unver presentation	
Image settings	Driver items	<u>^</u>
Database	Commented driver RGB (255, 224, 205)	
Boot image settings	Partially Comme RGB (211, 255, 205)	
Deployment settings	PNP vendor list	<b></b>
NAS settings Test settings	VEN_1000 X LSI Logic	
Users management	VEN_1002 X ATI Technologies Inc.	
-	VEN_1022 X Advanced Micro Devices	=
	VEN_102B X Matrox Electronic Systems Ltd.	
Dat ab ase	VEN_1039 X Silicon Integrated Systems	
Applications	VEN_105A X Promise Technology	
	VEN_1095 X Silicon Image	
🔛 Drivers	VEN_10B7 X 3Com Corporation	
🏭 Images	VEN_10DE X NVIDIA Corporation	
	VEN_10EC X Realtek Semiconductor	
Smart Images	VEN_1106 X VIA Technologies Inc	
BIOS		Ψ.
Normputer		<u>^</u>
Profile/preset		
: Utilities	Ok	Cancel
Settings	Driver properties Add image Database information Delete image(s) Delete SmartImage(s) Deployment settings Boot image settings	Driver settings
Ready		NUM

# Driver items

You can customize the background color of the drivers depending if they are commented or partially commented.

# PNP vendor list

A vendor category is used to define the type of drivers in the database. This is useful for organizing the database and makes sorting and searching by category easier. You may modify, add and remove categories and these will be available when creating or editing a driver in the database.



3. Click on the 🗄 button³ to add a new vendor category and fill the Vendor ID³ and Description³ text fields:

Deployment Suite Console
SDS Console Driver settings
These settings are used to customize driver presentation
Driver items       Commented driv         Commented driv       Deployment settings         Partially Comme.       Please fill fields about the new PNP vendor requested         PNP vendor liss       Vendor liss         VEN_1000       VEN_XXX         VEN_1002       Description         VEN_1028       OK
VEN_1039 VEN_105A VEN_105A VEN_105A
VEN_1095 X Silicon Image
VEN_10B7 X 3Com Corporation
PNP vendor list This is the PNP vendor list affectation
Ok Cancel

4. The new Vendor ID manufacturer name will appear at the end of the list:

A.C.	neployr	nent Suite Console	l	soft <mark>thinks</mark>	
	DS Console Drive	-			
Т	hese settings are use	d to customize driver presentation			
	VEN_1095	Silicon Image		•	
	VEN_10B7	SCom Corporation			
	VEN_10DE	NVIDIA Corporation			
	VEN_10EC	Realtek Semiconductor			
	VEN_1106	VIA Technologies Inc			
	VEN_11AB	× Marvell			
	VEN_1274	Creative Labs			
	VEN_14E4	Broadcom Corporation	 		
	VEN_14F1	Conexant Systems, Inc		E	
	VEN_5333	S3 Graphics Co., Ltd	 		
	VEN_8086	X Intel Corporation			
	VEN_XXXX	Nouveau vendeur		<b>•</b>	
V	N_XXXX				
				Ŧ	
			Ok	Cancel	

**Hint:** Double-click on an item to edit it and click on the **S** button in front of a category to delete it.



# **BIOS** settings

A BIOS category is used to define the type of BIOS component in the database. This is useful for organizing the database and makes sorting and searching by category easier. You may add new categories to the BIOS component type and these will be available when creating or editing BIOS components in the database.

- 1. Click on the "Settings" tab
- 2. Click on "BIOS settings" 2
- 3. You will see the current BIOS categories on the right ³. Here you have the predefined categories which cannot be modified or deleted.

👹 SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔛 🚺 🚺		
Settings SDSC	Deployment Suite Console	oft <mark>thinks</mark>
Application settings: BIOS settings	SDS Console BIOS settings	
Database settings Database settings Driver settings Image settings	These settings are used to customize BIOS presentation	
	BIOS category	
Database         Boot image settings         Deployment settings         NAS settings         Test settings         Users management         Database         Applications         Drivers         Mages         SmartImages	0 BIOS 1 FIRMWARE 2 DMI 3 PATCH	
BIOS		3
Lomputer		4 +
Profile/preset	Ok	Cancel
tilities		
🦕 Settings	Delete image(s) Delete SmartImage(s) Deployment settings Boot image settings Driver settings Application settings BIOS settings Users	; managemei 🔹 🕨
Ready		NUM

- 4. If you want to add your own category, click on the 🗈 button 🗸 to add a new BIOS component category
- 5. Enter its name ⁵ in the pop-op dialog box which appears:

BIOS settings	×
Please fill the	e field about the new category requested
Category	<new bios="" category=""></new>
	OK Cancel



6. The new category is added to the list  $\bigcirc$  and you can directly rename it by double-clicking on it

Ż	Deployment Suite Console	soft <mark>thinks</mark>
SDS	Console BIOS settings	
	settings are used to customize BIOS presentation	
BIO	S category	
0	BIOS	
1	FIRMWARE	
2	DMI	
3	РАТСН	
4	× <new bios="" category=""></new>	6
4		
		T
		Ok Cancel

7. To delete a non-predefined category, click on the  $\blacksquare$  button in front of it  $\frown$ .



# Database

# Boot Image settings

The SDS Console Boot Image Settings Wizard allows you to perform several operations on boot images:

- Modifying some internal attributes
- Injecting driver(s) to a boot image
- Configuring the deployment launcher: domain, username, password...
- Cleaning up WDS Boot Image (image size will be reduced)
- 1. Click on the "Settings" tab 💶
- 2. Click on "Boot image settings" 2

SDSC - V: 3.0.0.272	
File View Help	
📼 🖷 🔤 🌰 🚺 🚺	
Settings	Deployment Suite Console
SDSC	
Application settings BIOS settings	
Database settings	Welcome to SDS Console Boot Image Settings Wizard
Driver settings	Please select the boot image you would like to working with
Image settings	Boot image file name
Database	2 DeploySDS 10 .NET 10586 - x86 03-17-2017.wim
Boot image settings:	DeploySDS811.wim
Deployment settings	ToplaySDS_1607_x86.wim
NAS settings	TeploySDS_1703_x86.wim
Test settings	DeploySDS_1703_x86_HDDR.wim
Users management	DeploySDS_HD_Load_32bit_OS_RS2.wim
	DeploySDS_x86.wim     DeploySDS_X86_10586.wim
	DeploySDS_A66_10386.will DeploySDS 10 .NET 10586 - x64 10-13-2016.wim
😂 Database	DeploySDS 10. NET 10586 -x64 13-04-2017.wim
Applications	ToplaySDS_1607_X64.wim
	DeploySDS 1703 x64.wim
🔛 Drivers	Details
🌌 Images	WIM GUID: 6BE5D12B-8F28-45E4-BBCD-C882E8B0ED36
	Image compression: LZX
🥞 SmartImages	Image size: 236.02 MB
BIOS	Internal name: Microsoft Windows PE (x86) (Microsoft Windows PE (x86)) Modification time: 08/20/2018 16:30
Normal Computer	Creation time: 03/18/2017 19:17 Comment:
Profile/preset	
tilities	< Back Next > 5 Cancel
🚰 Settings	Driver properties Add image Database information Delete image(s) Delete SmartImage(s) Deployment settings Boot image settings Driver settings
Ready	NUM

- 3. Select the boot image you would like to work with ³
- 4. You can review the selected image properties in the Details section at the bottom 🔮 to confirm your choice
- 5. Click on the "Next >" button 5



6. Choose the action you want perform on the selected boot image  6  :

Reployment Suite Console		soft thinks
Welcome to SDS Console Boot Image Settings Wizard Choose what you want to do with boot image	6	
Change some internal image attributs	<b>Y</b>	
Installs an INF package (Recovery & WDS boot image)		
Configure the deployment launcher		
Clean WDS deployment boot image (WIM size will be reduced)		
Examine embedded drivers version		
	< Back Next > 7	Cancel



Land Contract Contraction		10151 Both
SDSC - V: 3.0.0.298		- 🗆 X
File View Help		
] 📼 🖷 🔛 🍰 🚺		
Settings	Reployment Suite Console	softthinks
SDSC Application settings BIOS settings Database settings Driver settings Image settings Database Boot image settings Deployment settings NAS settings Test settings Users management	Welcome to SDS Console Boot Image Settings Wizard Choose what you want to do with boot image  Change some internal image attributs Installs an INF package (Recovery & WDS boot image) Configure the deployment launcher Clean WDS deployment boot image (WIM size will be reduced) Examine embedded drivers version	
Database	New option to examine drivers installed	
Applications		
Drivers	1	
tmages	< Back Next >	Cancel
SmartImages	Boot image settings	
	Output: 0 Warning(s) - 0 Error(s)	
SmartImages	Output:         0 Warning(s)         - 0 Error(s)           [15/12/2020 - 12:21:47]         Displaying drivers by Categories: '14' items           [15/12/2020 - 12:21:47]         Displaying BIOS: '7' items	^
SmartImages	Output: 0 Warning(s) - 0 Error(s)           [15/12/2020 - 12:21:47]         Displaying drivers by Categories: '14' items           [15/12/2020 - 12:21:47]         Displaying BIOS: '7' items           [15/12/2020 - 12:21:52]         Grab connected computer list           [15/12/2020 - 12:21:52]         Grab connected computer list done           [15/12/2020 - 12:21:52]         Displaying database computer (s): '2' items	^
SmartImages SinartImages Sinart	Output: 0 Warning(s) - 0 Error(s)           115/12/2020 - 12:21:47]         Displaying drivers by Categories: '14' items           115/12/2020 - 12:21:47]         Displaying BIOS: '7' items           115/12/2020 - 12:21:52]         Grab connected computer list           15/12/2020 - 12:21:52]         Grab connected computer list done           15/12/2020 - 12:21:52]         Displaying database computer(s): '2' items           15/12/2020 - 12:21:52]         Displaying database Profile/preset: '3' items           15/12/2020 - 12:21:52]         Refreshing thumbnails computer list	^
SmartImages BIOS Computer Profile/preset	Output: 0 Warning(s) - 0 Error(s)           115/12/2020 - 12:21:47]         Displaying drivers by Categories: '14' items           15/12/2020 - 12:21:47]         Displaying BIOS: '7' items           15/12/2020 - 12:21:52]         Grab connected computer list           15/12/2020 - 12:21:52]         Grab connected computer list done           15/12/2020 - 12:21:52]         Displaying database computer (s): '2' items           15/12/2020 - 12:21:52]         Displaying database Profile/preset: '3' items	Ŷ

- Change some internal image attributes: View and edit the boot image activities and properties
- Installs an INF package (Recovery & WDS boot image): Inject a driver in the boot image
- Configure the Deployment launcher: View and edit the properties of the deployment launch process
- Clean WDS deployment boot image: Clean up the boot image from older copies of files modified
- 7. And click on the "Next >" button
- 8. If you selected "Installs an INF package (Recovery & WDS boot image)" as in our screenshot above, please refer to Injecting a driver ("Inject Driver(s)" operation).



# o Change some internal image attributes

If you selected the "Change some internal image attributes" option in step 6, you can view the last activities made on the selected boot image and purge this history by clicking on the 🗾 button 🕑 :

Mounting 28/08 Creating 03/05 Dismounting 13/04 Committing 13/04	Description           /2017 12:04:32         Dismount WIM file from 'C:\Users\ADMINI~1\AppData\Local\Temp\WIMMOUNT_025561'           /2017 12:02:37         Mount to 'C:\Users\ADMINI~1\AppData\Local\Temp\WIMMOUNT_025561'           /2017 11:56:15         Create PXE media           /2017 16:56:14         Dismount WIM file from 'C:\Users\Console\AppData\Local\Temp\WIMMOUNT_019912'           /2017 16:56:13         Commit WIM file modification           /2017 16:55:27         Mount to 'C:\Users\Console\AppData\Local\Temp\WIMMOUNT_019912'	
Internal WIM file	e data	
Wim name	DeploySDS_10586_X86_SENECA	
Wim description	DeploySDS_10586_X86_SENECA	
Comment		
	{8A17D3E8-467A-4CE4-9BC9-23D72F1309F9}	
GUID		
GUID Compression	LZX	
	LZX 288,53	
Compression		
Compression File size (MB)	288,53	
Compression File size (MB) OS size (MB)	288,53 1707,69	

You can also view the boot image properties **c** and modify some of them (the first three):

- Wim name: Boot image name
- Wim description: Boot image description
- **Comment:** Optional comment
- **GUID:** Boot image ID
- Compression: Compression method (LZX...)
- File Size (MB): Boot image size (compressed)
- OS Size (MB): Boot image contents size (uncompressed)
- **OS Version:** Version of the boot image OS
- **Creation Date:** Boot image creation date
- Modification Date: Boot image last modification date

# o Configure the Deployment launcher

If you selected the "Configure the Deployment launcher" option in step 6, you can change attributes related to networking so a network connection can be established during deployment to transfer data to the target system:

🧬 Deploym	nent Suite Console
	Console Boot Image Settings Wizard
Deployment start prop	erties
Settings	
Login	Administrator
Password	@Serversdk2014@
Dotted domain	deploy.com
NETBIOS domain	DEPLOY
Server path	\\SRV-BLEU\REMINST\SDKDB
Mapping try	50
Use API	V (Yes)
Remote desktop	🗹 (Online)
Listening port	5159
Login	В
Password	
Shell Password	root
keyboard language	French
	÷
	< Back Save Cancel

- Login / Password: Network credentials to use when mapping the "N:" drive on the deployment server
- Dotted domain: Fully qualified Windows Server domain name of the deployment server
- NETBIOS domain: Domain name of the deployment server used by systems before Windows 2000
- Server path: UNC path to the database on the server
- **Mapping try:** Number of times to retry if mapping fails
- **Use API:** Use the Microsoft connect API if a standard 'net use' failed to connect to server (leave it checked unless you encounter connection issues)
- Remote desktop: « Yes » to activate remote desktop feature
  - Listening port: Port used to listen for incoming connection
  - o Login / Password: Credentials to open a remote session
- Shell password: Password required to launch the shell. Leave it empty unless you want to enter credentials.

# Keyboard language: Keyboard layout

**Note:** If you change the Administrator password on the server, don't forget to update it here or else the devices will no longer be able to connect to the server.

# o Clean WDS deployment boot image

If you selected the "Clean WDS deployment boot image" option in step 6, we will remove all the previous versions of the modified files and so will decrease the boot image size (each time you update the boot image its size increases, because instead of replacing the old version of a modified file, it adds the new version to the image):

Reployment Suite Console	soft
Welcome to SDS Console Boot Image Settings Wizard Please wait during boot image modifications	
Cleaning deployment WIM image file	
	Done Cancel



# o Examine embedded drivers version

If you selected the "Examine embedded drivers version" option in step 6, we will ??? TODO:



# Deployment settings

- 1. Click on the "Settings" tab  $\bigcirc$
- 2. Click on "Deployment Settings" 2 to customize the deployments:

SDSC - V: 3.0.0.272			×
File View Help			
Settings	Deployment 3	Suite Console softwr	ıks.
SDSC		Suite Console	
Application settings <u>BIOS settings</u> Database settings Driver settings	Welcome to SDS Console Deployment Properties	Deployment Settings Wizard	
Image settings	General options		
Database	Classic jukebox	🕼 (Yes)	
Boot image settings	Profile dialog	🗹 (Yes)	
NAS settings	Synchronise clock	✓ (Yes)	
Test settings	Forward SPL/INI	(No)	
Users management	Forward TPL	(No)	-
	Create UP active	(No)	1
	Timer (S)	15	
	Ramdrive timeout (S)	30	
	Auto shutdown	(No)	
	Auto reboot	(No)	
	Auto select 'Image'	(No)	
	Auto select 'SmartImage'	(No)	
	Auto select 'App'	(No)	
	PCAngel mode	(No)	
	SmartImage mode	🔽 (Yes)	
📄 Database	SmartImage cleanup threshold	0	
applications	Warning on old image	(No)	
SW	Delay on warning popup	60	-
🔛 Drivers	Force Postdeploy on error	(No)	
🌉 Images	Eject CD/DVD tray on error	🔽 (Yes)	-
SmartImages	Partition label mask	SoftThinks	
	Create BOOT.WIM	🗹 (Yes)	-
BIOS	Worksation identication string 'WKS_Name' value is the identifci	ation string to allow using of this feature during deployment session	*
Normputer	_		Ŧ
🚔 Profile/preset			
;=_ Utilities		< Back Cancel	
🚰 Settings	Smart Image properties Driver prop	erties Add image Database information Delete image(s) Delete SmartImage(s) Deployment settings Boot image s	5 4 >
Ready		NUM	

# General options

- Classic Jukebox: Present a skip button on profile dialogue box if no preset is found for the jukebox mode
- **Profile Dialog:** Show the Profile Dialog box otherwise going directly to the jukebox mode
- Synchronize Clock: Synchronize the target device CMOS clock with the date and time from the server
- Forward SPL/INI: Copy SPL and deployment INI files to UserPartition:\Windows\Options folder
- Forward TPL: Forwards the TPL file to the deployment server after deployment completes
- Create UP Active: Ensure that the user partition is set to active
- Timer (S): Time before deployment begins and before a reboot occurs after deployment completion
- **Ramdrive timeout:** The time to wait to retry accessing the Ramdrive
- Auto shutdown: Automatically shutdown the device at the end of a successful deployment
- Auto reboot: Automatically reboot the device at the end of a successful deployment
- Auto select 'Image': Automatically select the image during the deployment
- Auto select 'SmartImage': Automatically select the SmartImage that is compliant with the image if available
- Auto select 'App' : Automatically selected applications during deployment
- **PCAngel mode:** Kept for compatibility. Do not modify
- SmartImage mode: « Yes » to create a Smart Image based on plugged disk
- SmartImage cleanup threshold: Delete the previous SmartImage when creating a new one
- Warning on old image: Display a message when the image selected is older than « Delay on warning popup » days if no SmartImage has been selected
- Force PostDeploy on error: Force PostDeploy on error
- Eject CD/DVD tray on error: Eject optical device tray on error
- Partition label mask: User partition label mask
- Create BOOT.WIM: Create the boot image for the recovery solution

#### Recovery partition options

sつ<u></u>[た**し**1]**1**|**5**]

Recovery partition optio	
Automatic mode	🕅 (No)
Recovery type	Recovery from specific partition
Manual size	🔲 (No)
Size (MB)	2000
Hide Boot Key	(No)
Timeout (Sec)	6
Create NTFS RP	(No)
RP at disk start	🔲 (No)
Visible	(No)
Change partition t	✓ (Yes)
anguage	Auto
Brand used	

- Automatic mode: Bypass recovery options at run time
- **Recovery type:** System recovery scenario:
  - "No recovery"
  - "Recovery from specific location"
  - "Recovery from user partition"
  - "No Recovery solution, use only original image disk typology"

If you select the "Recovery from specific location" option you have to fill those settings:

- Manual Size: "Yes" to force the Recovery Partition size to the "Size (MB)" value (else it will be estimated dynamically)
- Hide Boot Key: "No" to show the message inviting the user to press a key to boot into the RP during "Timeout (Sec)"
- Create NTFS RP: "Yes" to format the RP in NTFS filesystem
- **RP at disk start:** "Yes" to create the RP at the start of the disk
- **Visible:** "Yes" to make the RP visible (in Windows explorer for example)
- **Change partition type:** "Yes" to change the partition type
- Language: Recovery solution language ("Auto" to let it dynamically detected)
- **Brand used:** To customize the recovery solution interface to as specific brand (logo...)

**Note:** Windows 10 does not allow for a separate Recovery Partition. The two viable options for Windows 10 are "No recovery" and "No Recovery solution, use only original image disk typology".

#### ODM option

ODM options	
Network path	/:x
Status path	x:/
Enable load balancing	(No)
Cluster path	x:\Cluster
Load balancing method	

- Network Path: Drive letter where the root of the deployment files is located
- **Status Path:** Path where deployment status will be saved. Depending on pass or fail status, different info will be saved here
- Enable Load Balancing: Allows DeployJB to map to a different server if primary server is too busy
  - Cluster path: Path where network cluster is located
  - Load Balancing method: Trigem or Quanta Load balancing method

# Updating master options

E	Updating master options		
	Use computer PNP	V (Yes)	
	New format	V (Yes)	

- Use Computer PNP: Use all PNP that can be detected on the PC. If no, use only the driver from selector.ini
- **New Format:** Leave this setting set to 1. Changing this will remove the benefit of the new database format

#### Reseal options

Reseal options	
Forward request	🔲 (No)
Output passed folder	\\192.168.X.X\reminst\sdkdb\passed
Output failed folder	\\192.168.X.X\reminst\sdkdb\failed
Login	XXXXX@deploy.com
Password	X0000X
Login timeout (S)	15
Forward TPL file	🔲 (No)
Forward XPL file	(No)
Forward SPL file	🔲 (No)
Forward INI file	🔲 (No)

- Forward request: Send reseal information to the server
  - **Output passed folder:** Storage location for machine-specific info from target system after reseal occurs in audit mode successfully
  - **Output Failed folder:** Storage location for machine specific info from target system after reseal occurs in audit mode with failure
  - o Login / Password: Credentials to log onto server
  - **Login timeout:** Time to wait before retry to login
  - Forward TPL file: Include TPL file as part of info to send to server
  - **Forward XPL file:** Include XPL file as part of info to send to server
  - Forward SPL file: Include SPL file as part of info to send to server
  - o Forward INI file: Include INI file as part of info to send to server

#### Precheck test options

sつ<u></u>[た**し**1]**1**|**5**]

Precheck test options		*
Force Precheck manually	☑ (Yes)	-
Start Precheck even	(No)	
Sector used	45	
Value passed	PASS	
Value failed	FAIL	
Executable	bit32.exe	
Command line	-D 5 -R -X -C test_rapide.bitcfg	
Valid exit code	0	
Inavlid exit code	0	
Time Out	8	
Action to process	Continue	
Diagnostic path	X:\burnintest	
Scripts folder	X:\	

- Force Precheck manually: Allow to start Precheck test manually
- Start Precheck even if a disk is absent: Start Precheck even if is a disk is not plugged to the device
- Sector used: Sector on the HDD where is stored the test status
- Value passed: Value written to the sector when the diagnostics pass
- Value failed: Value written to the sector when the diagnostics fail
- **Executable:** Executable to launch for the diagnostic tests
- **Command Line:** Switches for the executable
- Valid Exit Code: Exit code for "PASS" condition of the diagnostics
- Invalid Exit Code: Exit code for "FAIL" condition of the diagnostics
- Action to Process: If test passes, continue deployment
- **Diagnostic path:** Location of the files used for diagnostics
- Scripts folder: Location of the diagnostics scripts

#### BurnInTest test options

BurnInTest test options	
Executable	
Command line	Ξ
Result folder	
Pass flag file	
Pass flag file Invalid flag file Result folder	
Result folder	

- **Executable:** BurnInTest executable to launch
- **Command Line:** BurnInTest executable command line arguments
- Result Folder: Location where BurnInTest results are stored
- Pass flag file: Flag file created for pass condition
- Invalid flag file: Flag file created for fail condition
- **Result Folder:** Folder where previous flags file will be present

Customer options

sつ1**tthinks**…

	-	Customers options		^
		Pre_Send_result	(No)	
[	-	Wait for profiles		
		Ask for profile	(No)	
	I	Retry	3	
	I	Delay (S)	30	
	I.	Create TAG file	(No)	
		Move INI files	(No)	
		Target folder		
[	-	Use disk sector		
	I.	Sector used	10	
	I	Default profile		

- **Pre_Send_Result:** Send info to server during reseal operation. Oemreset can now duplicate S<serial>.log file in TP/TF folder for pass/fail results
- Wait for profiles: Wait for deployment INI files to becoming available
  - **Ask for profile:** Ask for the profile to use at run time through a popup (ex: if DMI is not set correctly)
  - **Retry:** Retry attempt before failing
  - Delay (S): Retry delay between each try
  - **Create TAG file:** Create serial number tag file if the profile is not present at startup to ask to a third party soft to give it available
- **Move INI files:** Move Selector.ini & Rsselect.ini to the « **Target folder** » location after deployment (this target folder must be a local path on the RIS)
- Use disk sector: Use a disk sector with the DMI to validate the profile to use
  - **Sector Used:** Sector id where to check for the serial or model number (9 to 62)
  - **Default profile:** Default profile to use if the signature does not match

BIOS flashing options

🗏 BIOS flashi	ng options	
Use marker	file 🔲 (No)	
Backup m	narker file 🔲 (No)	
MarkerFile	e path	
Login		
Password		

- User Marker File: Force the use of a marker file instead of the disk itself to log BIOS flashing. The file is located in BIOS\TEMP\BIOSxxxxx.TBIF
  - **Back up Marker File:** Move the TBIF file into a sub folder "DONE" for backup purposes when all flashing operations have processed. These files will overwrite if a collision occurs
  - Marker file path: Marker file path
  - o Login / Password: Credentials to access to the Marker file path above

PC Angel

	E	PCAngel	
		Splitting size (MB)	650
NL	. 1	lowwor wood	

No longer used.



#### Backup tool

E	Backup tool	
Ξ¢	Activate backup tool	🗖 (No)
E	Executable path	
	Executable arguments	

- Activate backup tool: Enable the possibility to launch a backup tool before deploying an image
  - **Executable path:** Backup tool executable path
  - o Executable arguments: Backup tool executable command line arguments

# ISO Workstation

ISO Workstation	
Worksation identication strin	g
Destination path	
Login	
Password	
Domaine	
ISO process iteration	50

# No longer used.

#### Image test options

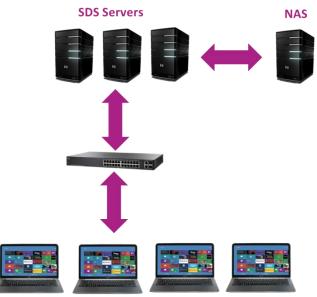
🗏 Image test o				E
000	TO BE FILLED			-
000				* *
			< <u>B</u> ack	Save <u>C</u> ancel

No longer used.



# NAS settings

Potential NAS Configuration. Setup can vary depending on your needs:



- 1. Click on the "Settings" tab **1**
- 2. Click on "NAS settings" 2

	5	
👹 SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔤 🌰 🚺 🚺		
Settings SDSC Application settings BIOS settings Database settings Driver settings Image settings Database Boot image settings Deployment settings NAS settings Test settings Users management	Deployment Suite Console Welcome to SDS Console NAS configuration Wizard Choose the operation to perform: Add a "NAS" support Configure 'NAS' settings Delete 'NAS' support	soft <mark>thraks</mark>
Database Database Applications Drivers Tmages SmartImages BIOS Computer		
Profile/preset	< Back Next >	Cancel
1	Database information Deployment settings BIOS settings NAS configuration wizard Image properties	
🕞 Settings	Paranase minimation Peblogment settings and settings mes configuration without Thingle bioberries	
Ready		NUM



### Add a 'NAS' support

Since you can configure only 1 NAS, only the option "Add a 'NAS' support"  $\bigcirc$  is available initially. After having selected this option and clicked on the "Next >" button, you will be able to fill in all of the necessary information required to get the NAS properly setup:

G.	Deploym	ent Suite Console		soft thinks
		Console NAS configuration Wizard values in order to get NAS properly setup.		
E	NAS Settings			
	Login	exemple_John		
	Password	nopass		
	Dotted domain	deploy.com		
	Network path	\\10.0.10\reminst\sdkdb		
	-			
				*
			< <u>B</u> ack	Save <u>Cancel</u>

- Login / Password: Credentials to connect to the NAS
- Dotted domaine: Dotted domain name where the network share is
- Network path: Sharing UNC path used to deploy (please use IP address only)

#### Configure 'NAS' settings

Once a NAS has been setup you can choose the option "Configure 'NAS' settings" in order to review or edit its settings as in the previous screenshot:

Yo Y	Deployr	nent Suite Console	
		Console NAS configuration Wizard ary values in order to get NAS properly setup.	
E	NAS Settings		
	Login	exemple_John	
	Password	nopass	
	Dotted domain	deploy.com	
	Network path	\\10.0.10\reminst\sdkdb	
		•	
		< Back Save Cancel	

# soft thinks...

# Delete 'NAS' support

You can delete a NAS previously setup with the "Delete 'NAS' support" option which will ask you to confirm:

🖉 Deploy	yment Suite Console	soft
Welcome to S Choose the opera	DS Console NAS configuration Wizard tion to perform:	
	Confirmation	η
	Are you sure you want to delete 'NAS' support for this database?	
	Oui Non	
	< Back Next >	Cancel



# Test settings

The SDS Console Tests settings wizard allows you to customize the tests run during the Quality Check depending on the operating system.

- 1. Click on the "Setting" tab
- 2. Click on "Test settings" 2
- 3. Select the operating system for which you want to configure the tests  $\bigcirc$
- 4. Click on the "Next >" button

👹 SDSC - V: 3.0.0.272		
File View Help		
📼 🖷   🎫 🌰   😰 🚺		
Settings SDSC Application settings BIOS settings Database settings Driver settings Image settings	Deployment Suite Console     Welcome to SDS Console Tests setting Wizard     Select the operating system you want to configure	soft <mark>thinks</mark>
Database       Boot image settings       Deployment settings       NAS settings       2         Verse settings       Users management       2         Database       Applications       2         Drivers       SmartImages       3         SmartImages       SmartImages       3	Operating system name         Windows XP Pro         Windows MCE         Windows 2000         Windows 2003         Windows 2003 64         Windows Vista         Windows Vista 64         Windows Server 2008         Windows 7         Windows 7         Windows 8         Windows 8         Windows 8         Windows 10         Vindows 10         Vindows X	
Computer		
➡ Profile/preset ३= Utilities	< Back Next >	Cancel
Settings	Database information Deployment settings BIOS settings Tests management NAS configuration wizard Image properties	
Ready		NUM

# General

	t Suite Console	าว่าห
× Deployment		
Nalcomo to CDC Conce	ala Tasta satting Wizard	
Test Properties	ole Tests setting Wizard	
General		
Mode	manual	
Test files	(No)	
Device manager	(No)	
Audit mode	V (Yes)	
Conflict start	V (Yes)	
SysPrep	🔲 (No)	
Success dialog	V (Yes)	
Failed dialog	V (Yes)	
OEMReset auto reseal	V (Yes)	
timeout	15	
Show events	🔲 (No)	
Events viewer	warning	
EMReset auto reseal		
his setting enable auto resea	di	
	< Back Save Can	icel

- Mode: "manual" to configure the tests at run time, or "auto" to run all tests automatically
- Test files: "Yes" to check the drivers signature ("No" by default)
- Device manager: "Yes" to open the device manager if an error is detected ("No" by default)
- Audit mode: "Yes" (by default) to start the tests in audit mode
- Conflict start: "Yes" (by default) to start the tests if conflicts are detected
- Sysprep: "Yes" to show Microsoft Sysprep button (No longer used. Do not check)
- Success / Failed dialog: Show a report dialog if test succeeded / failed
- **OEMReset auto reseal:** Automatically reseal the device at the end of the tests after "timeout" (Deprecated)
- Show events: Open the event viewer with the filter specified by the "Events viewer" value ("information" / "warning" / "error")

# Multimedia

🗧 Multimedia		
WAV file	🔲 (No)	
MIDI file	🔽 (Yes)	
MP3 file	🗹 (Yes)	
Microphone	🕼 (Yes)	
WebCam	🔽 (Yes)	
Headphone	🔲 (No)	

- WAV files: Test WAV file
- MIDI files: Test MIDI file
- MP3 files: Test MP3 file
- **Microphone:** Test the microphone
- Webcam: Test the webcam
- **Headphone:** Test the headphone

# Network

🗖 Network	
🗖 Wired	
Test LAN	🔲 (No)
Auto DHCP	🔲 (No)
Auto DNS	🔲 (No)
IP	
Mask	
Gateway	
DNS 1	
DNS 2	
🗖 Wifi	
Test WLAN	🔲 (No)

# • Wired

- **Test LAN:** "Yes" to test the wired connection
- **Auto DHCP:** "Yes" if using DHCP server
- **Auto DNS:** "Yes" if using DNS server
- **IP:** IP address to set if you don't use DHCP
- Mask: Subnetwork mask to set if you don't use DHCP
- o Gateway: Gateway to set if you don't use DHCP
- **DNS 1:** Primary DNS server to set if you don't use DHCP
- o DNS 2: Secondary DNS server to set if you don't use DHCP
- Wifi
  - Test WLAN: "Yes" to test the WiFi connection

# Network log

E	Network log			
	Send Log	🔲 (No)		
	volume Letter			
	Domain		E	
	Login			
	Password			
	Network Path			

- Send log: "Yes" to send the logs to the SDS server
- Volume letter: Letter to which is mapped the SDS server share folder where logs have to be sent
- Domain: SDS Server domain name (Ex: « deploy.com »)
- Login / Password: Credentials to access the shared folder
- Network path: UNC path where logs have to be sent (Ex: \\192.16.0.17\remisnt\SDKDB\Logs)

# OEM

You can add your own tests here:



1. Click on the  $\pm$  button 4 and select the folder containing the test tool you want to integrate:

Deployment Suite Console		soft <mark>thinks</mark>
Welcome to SDS Console Tests setting Please select a folder containing the application to add Bureau		
Bibliothèques     Console     Ordinateur     S COS (C:)     OS (C:)     OS (dell		E
Drivers     Intel     OEM Tools     PerfLogs     Pogram Files (x86)		
Include all subdirectories		
	<pre> Back Next &gt;</pre>	Cancel



2. Fill the information required to launch your test tool and manage its result, and click on the « Save Test » button:

GY.	Deploymer	t Suite Console
	Velcome to SDS Cons Test information	ole Tests setting Wizard
E	OEM test settings	
	Application to start	OEM Test Tool 1.exe
	Command line	
	Remove application	🔲 (No)
	Show application	🗖 (No)
	Success code	0
	Failed code	0
	Stop if failed	(No)
	Log file	
	EM test settings 'his part group test settings	from 'WindowsTestmanager.xml' file
		< Back Save Test Cancel

- Application to start: Executable to launch (.bat, .cmd or .exe)
- Command line: Executable command line arguments
- **Remove application:** "Yes" to remove the test tool after its execution
- Show application: "Yes" to show the test tool UI
- **Success code:** Value returned by the test tool in case of success
- Failed code: Value returned by the test tool in case of failure
- Stop if failed: "Yes" to stop the process if the test tool returned a failure
- Log file: Path where the test tool log is generated (will be sent with other logs if the "send log" option is checked)

# Users management

This wizard allows you to restrict access to a database.

- 1. Click on the "Settings" tab  $\bigcirc$
- 2. Click on "User management" 2

👹 SDSC - V: 3.0.0.272		- • •
File View Help		
📼 🖷 🔤 🏠 🚺		
Settings	🖉 Deployment Suite Console	soft <mark>thinks</mark>
SDSC		
Application settings		
BIOS settings Database settings	Welcome to SDS Console Users management Wizard	
Driver settings	Users & properties list	
Image settings	General database status	
Database	Lock database (No)	
Boot image settings	Ask authorisation (No)	
Deployment settings		
NAS settings Test settings		
Users management	Admin Admin Applications I Add	
	✓ Delete	
	<ul> <li>✓ Modify</li> <li>✓ Export</li> </ul>	
	Drivers 🖉 Add	
	<ul> <li>✓ Modify</li> <li>✓ Export</li> </ul>	
	Images 🗹 Add	
	Smart images Add	
Database Database	V Delete	
Applications	BIOS Add	
Drivers	BIOS ✓ Add ✓ Delete	
	Modify	
🤹 Images	Computer Add	
鍌 Smart Images	V Delete	
BIOS	Modify	
BIOS		~
Computer		Ŧ
Profile/preset		
; ↓ Utilities	< Back Save	Cancel
Settings	Database information Deployment settings BIOS settings Users management Tests management NAS configuration wizard Image proper	rties
Ready		NUM

# General database status

- Lock database: Restrict the access to the database to the administrator only
- **Ask authorization:** Restrict the access to the database to selected users

# Users (Pass)

You can add a user by pressing the 🛃 button 3 and then define the user's rights for Add, Delete, Modify and Export database components for each component category (Images, Smart Images, Applications, Drivers, BIOS).

# Booting a device in SDS environment

# Windows / Linux Devices

The first step in the process for using SoftThinks Deployment Suite will be to PXE boot a unit (Laptop, Desktop or Server) to the SoftThinks Server. In order to do this, you will have to go to the unit's BIOS or Startup Menu and set or select Network Interface or NIC as the boot option.

You can also use a bootable USB stick as an alternative to PXE booting (See <u>How to boot from Bootable USB Flash Drive with</u> <u>USB Ethernet adapter</u>).

# macOS Devices

macOS devices can be booted only though a <u>UEFI</u> SDS USB Boot Stick.

# macOS devices with T2 chipset only (for imaging purpose please see <u>macOS Image Preparation</u>)

On macOS devices with T2 chipset, you could not boot from USB by default or boot from a windows device. For this you will need to use MAC Recovery and change boot options. To achieve this, you will need the administrator account from the OS version installed. Without it, user configuration is impossible to change those settings.

- 1. You have to boot in MAC Recovery with the appropriate macOS recovery:
  - MacOS Recovery
     Turn on your Mac and immediately press and hold these two keys: Command-R
  - MacOS Recovery over Internet

Turn on your Mac and immediately press and hold one of the combinations

- Option-Command-R
- Shift-Option-Command-R
- 2. Once in recovery open a terminal:



3. Insert EUFI version of the SDS USB Boot Stick (PXE_SDSC) plugged in the USB port that also has the folder and files from the MACOS SUPPORT\T2 folder on your server.

4. Run **DISKUTIL** list to determine the first internal, physical disk with EFI partition. The example below would be disk1

Terminal	Shell Edit	View	Window He	lp		
					Terminal -	— -bash — 157>
	diskutil list (disk image):					
#:		TYPE	NAME	SIZE	IDENTIF	TER
0:	GUID_partition_			+2.1 0		
1:		Contraction of the second second second	macOS Base S	The second se		
/dev/disk1	(internal, phys	sical):				
#:		TYPE	NAME	SIZE	IDENTIE	TER
0:	GUID_partition	scheme		*500.3		
1:		and the second se	EFI		MB disk1s1	
2:	App		Container di			
/dev/disk2	(synthesized):					
#:	(0)	TYPE	NAME	SIZE	IDENTIFI	FR
0:	APFS Container		-	+500.0		
1:	ADEC	Volumo	Physical Stor Macintosh HD		B disk2s1	
2:				- Data 3.0 G		
3:			Preboot	- Data 737.3 79.4		
4:			Recovery		And the second se	
5:		Volume		1.1 G		
6:			Macintosh HD			
/dev/disk3	3 (disk image):					
#:		TYPE	NAME	SIZE	IDENTIFI	ER
0:			untitled	+10.5 1	MB disk3	

 Move to the USB drive with the following command: cd /Volumes/PXE_SDSC

softthinks...

6. Run the following command and substitute the "DiskO" with the disk you identified in step 2 above: ./ SDST2 -W1 -I disk0 -E



 Then remove USB device and reboot. The unit will start automatically to SDS. Now you can run all functions of SDS except image capture. If you need to capture an image from a MAC with T2 enabled, please refer to <u>macOS Image</u> <u>Preparation</u>.



# SDS Welcome Screen

Once the unit has booted you will see the SDS Welcome screen. This screen can be fully customized (See How to customize welcome menu).

Tech ID   Asset Tag   SKU Number   Customer Name     Mult/Diagnostics     Imaging     Tech ID   Asset Tag   SKU Number   Customer Name     Output     Imaging     Repair     Wipe Only	al refurbishing Welcome Screen:			softthin
	soft <mark>thinks</mark>	SKL	Asset Tag	
Audit/Diagnostics Imaging Repair Wipe Only				
	Audit/Diagnostics	Imaging	Repair	Wipe Only

Note: This is just one of an almost unlimited number of configurations that are possible with the software. The Welcome Page can be modified to fit your specifications exactly to make it as easy as possible for your technicians.

From this Welcome Screen you can choose from: Audit/Diagnostics, Imaging, Repair, and Wipe Only

#### Audit/Diagnostics: •

This selection brings you to a menu where you can select from: Audit Only, Audit with Diagnostics, and Audit with Diagnostics W/O HDD.

#### • Imaging:

This selection brings you to a menu where you can select from: Create, Deploy/Wipe/Diagnostics, and Deploy Only

#### • Create:

This will take you Image Capture page and allow you to capture either a Windows Generic or a model specific Static Image for Windows or MAC.

#### • Deploy/Wipe/Diagnostics:

This selection will take you through a series of screens to make your choices for deploying an image to a computer and do the diagnostics and hard drive wiping along with it.

#### • Deploy Only:

This selection will take you through a series of screens to make your choices for deploying an image only.

#### • <u>Repair:</u>

This selection brings you to a menu where you can select from: Auto-Repair, Smart Repair, Hardware Check and OS Tools.

#### • Auto-Repair:

Will attempt to fix boot issues of a computer, if that fails it will prompt you to back up the user's data, reimage the computer, and then restore the user's data.

#### • Smart Repair:

Will attempt to fix the boot issues of a computer.

• Hardware Check:

Gives you the options to check various systems of the computer.

• OS Tools:

This selection brings you to a menu where you can select from: Un-delete, Create Migration and data backup, and Apply Migration and data backup.

#### • Undelete:

Allows you to restore a previously deleted file or folder.

• Create Migration and data backup:

Will allow you to create a backup of a user's files and settings

#### • Apply Migration and data backup:

Will restore a previously created backup to a user's computer.

#### • Wipe Only:

This selection brings you to a menu where you can select from: Wipe – 1 Pass, Wipe – 1 Pass with Diagnostics, Wipe – 3 Pass, Wipe 3 – Pass with Diagnostics.

#### • Wipe – 1 Pass:

Allows you perform SoftThinks Adisa Certified Basic 0 Wipe on any hard drive found in a computer, server, or wipe-array.

#### • Wipe – 1 Pass with Diagnostics:

Allows you perform SoftThinks Adisa Certified Basic 0 Wipe on any hard drive found in a computer, server, or wipe-array, and do the diagnostics of the hard drive(s) and the hardware of the computer that it is in.

#### • Wipe – 3 Pass:

Allows you to perform the U.S. Standard, DoD 5220.22-M 3-Pass Wipe on any hard drive found in a computer, server, or wipe-array.

#### • Wipe – 3 Pass with Diagnostics:

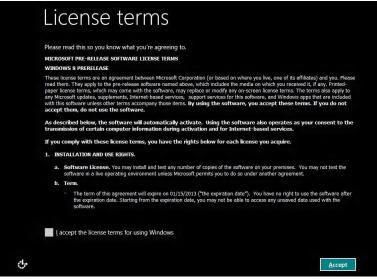
Allows you to perform the U.S. Standard, DoD 5220.22-M 3-Pass Wipe on any hard drive found in a computer, server, or wipe-array, do the diagnostics of the hard drive(s) and the hardware of the computer that it is in.

# Preparing an image

sつ1**tthinks**…

### Static Windows Image preparation (Factory Image)

1. Reload a known good system completely via factory recovery discs, recovery partition, or new in the box – power on/reboot and let the unpacking process proceed to Windows welcome / license screen (might defer depending on Windows version):



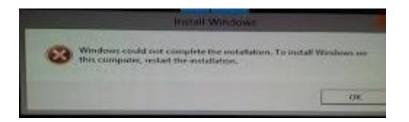
2. While in this screen, press simultaneously SHFT+F10 and a command prompt will appear. Go to the C:\Windows\Panther directory and check to see if there is a unattend.xml or an unattend folder. If there is rename them to unattend_bak.xml and unattend_bak respectively. Exit the command prompt after checking the panther folder. At this point, simultaneously press SHFT+CRTL+F3 (You may need to press the Fn key as well for the Function Keys depending on the system). The system will proceed to reboot into MS Windows Audit Mode and System Preparation Tool (« Sysprep ») will appear on the desktop:

System Preparation Tool ( hardware independence a	(Sysprep) prepares the machine fo and cleanup.
System Cleanup Action	
Enter System Out-of-Br	ox Experience (OOBE)
[[]] Generalize	
Shutdown Options	
Reboot	

If you receive an error message (below) when attempting to go to Audit mode, you will need to follow these steps :

- a. Press the keys SHIFT+F10 to open a command prompt.
- b. Change the directory to C:\Windows\System32\Sysprep and run the sysprep.exe.
- c. Choose the option for Enter System Out-of-box Experience (OOBE).
- d. Leave the generalize box empty and select OK. The system will reboot to the OOBE screen. You will need to complete OOBE at this point.
- e. Once you are in user mode, to the C:\Windows\System32\Sysprep directory again and run Sysprep.exe.
- f. Select "System Enter Audit Mode" and again leave the generalize box empty.
- g. Select OK and it should reboot into Audit mode at this point.
- h. Open Control Panel, User Accounts and delete the user you created during OOBE process. Make sure to delete the user data as well.
- i. Now the system should stay in OOBE mode.





3. Close the sysprep Windows by using the "X" in the corner. Open a command prompt and run the command "slmgr /upk". The command will clear the current product key from the registry and inactivate Windows. Shutdown system from the <u>start menu</u> or from <u>Settings/Power</u>. This will keep the system in Audit Mode.

	Getting Started		Settings
3	Windows Media Center	Administrator	Desktop
	Calculator	Documents	Control Panel
	Sticky Notes	Pictures	Personalization PC info
R	Snipping Tool	Music	Help
	Paint	Games	
-	Magnifier	Computer	
5		Control Panel	
24	Solitaire	Devices and Printers	Closes all apps and turns off the PC.
		Default Programs	Available Restart Brightness
7:2		Help and Support	■ 🕛 🎟
>	All Programs		Notifications Power Keyboard
Se	arch programs and files	Shut down	Change PC settings

#### Note: Do not use the SYSPREP tool.

4. The image is ready to be captured. Please follow the steps in the *Image Capture Section*.

## SOIT thinks...

### Generic Windows Image preparation

1. Reload a known good system completely via Windows install media. After installation is complete, it should be at the Windows License screen / OOBE welcome screen:

License terms	
Please read this so you know what you're agreeing to. MICROSOFT PRE-RELEASE SOFTWARE LICENSE TERMS	Hi there
WINDOWS 9 PRENEITASE These licens terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the pre-release software name dakwe, which includes the media on which you received it, if any Printed- paper license terms, which may come with the software, may replace or modify any no screen license terms. The terms also apply to	Let's get a few basic things out of the way.
any Microsoft updates, supplements, Internet-based services, support services for this software, and Windows apps that are included with this software unless other terms accompany those items. By using the software, you accept these terms. If you do not accept them, do not use the software.	What's your home country/region? Norway
As described below, the software will automatically activate. Using the software also operates as your consent to the transmission of certain computer information during activates and for Internet-based services. If you comply with these feemse terms, you have the rights below for each license you acquire.	What's your preferred app language?
1. INSTALLATION AND USE RIGHTS,	Norwegian Bokmål (Norway)
<ol> <li>Software to locates. You may install and test any number of copies of the software on your premises. You may not test the software in a live operating environment unless Microsoft permits you to do so under another agreement.</li> <li>Tem.</li> </ol>	What keyboard layout would you like to use? Norwegian
<ul> <li>The term of this agreement will expire on 01/15/2013 ("the expiration date"). You have no right to use the software after the expiration date. Starting from the expiration date, you may not be able to access any unsaved data used with the software.</li> </ul>	
Laccept the license terms for using Windows	47 Next
Accept	

2. Enter in Audit mode by simultaneously pressing CTRL+SHFT+F3 (you may need to press the Fn key as well for the Function Keys depending on the system). The system will proceed to reboot into MS Windows Audit Mode and the System Preparation Tool (« Sysprep ») will appear on the desktop:

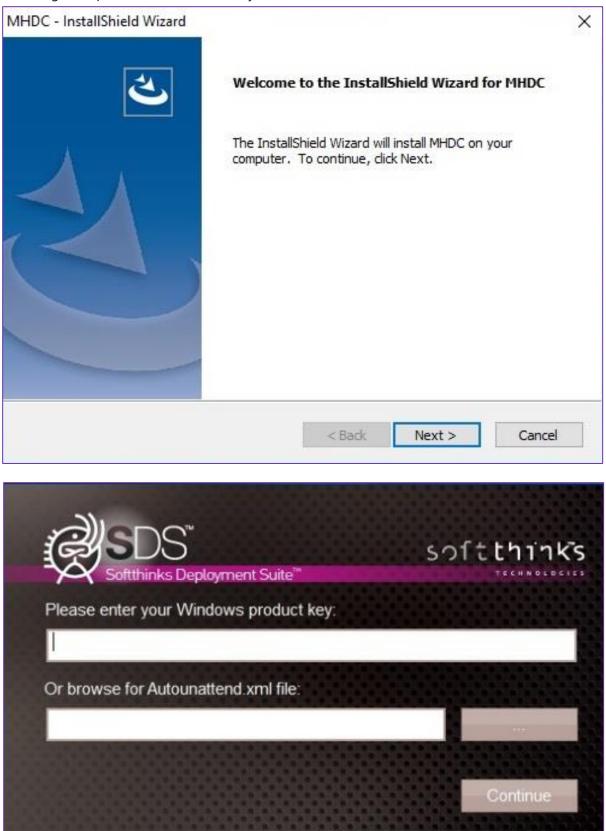
Recycle B							
				-		×	
					em Preparation Tool 3.14		
				Sj	ystem Preparation Tool (Sysprep) prepares t ardware independence and cleanup.	he machine for	
					System Cleanup Action		
					Enter System Out-of-Box Experience (OOB	E) 🔻	
					Generalize		
					Shutdown Options Reboot		
					REDUC		
					OK	Cancel	
					*		
	6	1000	-	 Page 1			10.58 AM
	0		0	1			- 💦 🐑 🕼 10:58 AM

At this point, you can install Windows Updates or any other applications you want added to the image. For Windows 7, you can use Windows updates to update the operating system. For Windows 8 and 10, you would have to use PowerShell to update the operating system.

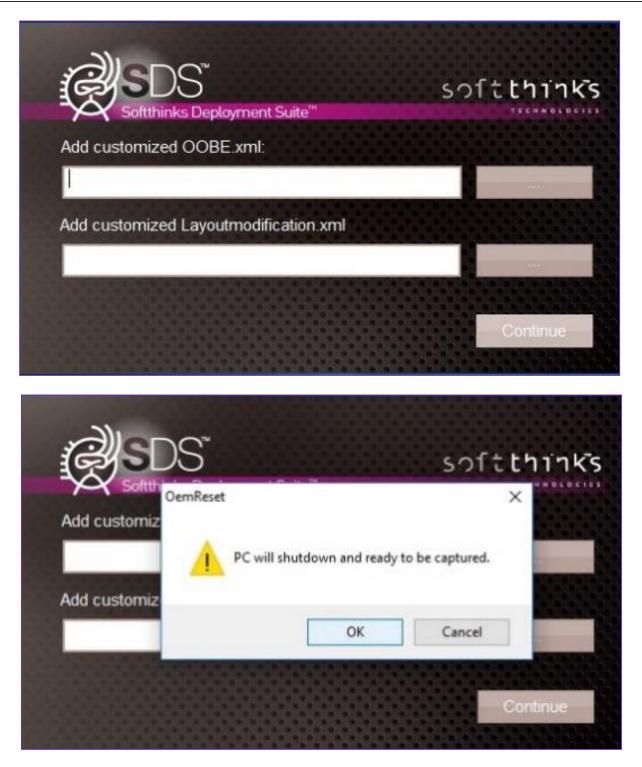
**Note:** Only install applications that should be a part of the base image, and so pushed to every device deployed with this image (ex: Microsoft Office, Anti-virus programs, etc...). Applications that would need to be installed as part of a special order can be deployed during the deployment process.

4. Since the OS has been updated and the necessary applications are installed, the system is ready to have Master Hard Disk Creator (SoftThinks provided software for Generic Image preparation) installed. Follow the prompts to install and run it to begin the process. At the end, the system will be shut down:

softthinks...







**Note:** You have to provide your own unattend.xml to fully configure your image (by default, all localization parameters are set to EN-US).

5. The image is now ready to be captured, please follow the steps in the image capture section.

### Static Image built from a Generic preparation

- Deploy the required Windows Image to a known good system. During the deployment process, install **SoftThinks Backup and Recovery** (SoftThinks provided Recovery Solution software) if needed. The Image should be configured exactly how you would want it deployed for the final version.
- 2. Once the image has been deployed to the system, verify that everything is installed as requested and that drivers have been installed. Also verify that the recovery is working as expected.
- 3. Once everything has been verified, shut down the system using normal Windows functions. Do not use the OEMReset that is showing in the right corner of the screen.
- 4. The image is ready to be captured, please follow the steps in the image capture section.

### macOS Image Preparation

#### **Setup Recovery over Internet**

#### Preliminary steps for macOS devices with T2 chipset only

You need to boot in recovery mode to install the EUFI PXE SDS device to your disk without changing disk topology. This will instruct the mac to support booting from the specific USB Drive used in the steps below as a supported external boot device. Once installed you use only this device, it will be dedicated to the macOS device where you install it. A USB device could be associated to several Apple computer.

- 8. Insert EUFI version of the SDS USB Boot Stick (PXE_SDSC) plugged in the USB port that also has the folder and files from the MACOS SUPPORT\T2 folder on your server.
- 9. Run **DISKUTIL** list to determine the first internal, physical disk with EFI partition. The example below would be disk1

Terminal	Shell Ed	lit View	Window Help			
					Terminal — -bash -	- 157>
	diskutil li (disk image	Construction of Parallel Statements and the				
#:		TYPE	NAME	SIZE	IDENTIFIER	
0:	GUID_partit	tion_scheme		+2.1 GB	disk0	
1:		Apple_HFS	macOS Base System	2.0 GB	disk0s1	
/dev/disk1	(internal,	physical):				
#:			NAME	SIZE	IDENTIFIER	
0:	GUID parti	tion_scheme		*500.3 GB		
1:			EFI		disk1s1	
2:			Container disk2	500.0 GB		
/dev/disk2	(synthesiz	ed):				
#:			NAME	SIZE	IDENTIFIER	
0:	APFS Conta	iner Scheme		+500.0 GB	disk2	
			Physical Store disk1s	2		
1:		APFS Volume	Macintosh HD - Data		disk2s1	
2:		APFS Volume	Macintosh HD - Data	737.3 KB	disk2s2	
3:		APFS Volume	Preboot	79.4 MB	disk2s3	
4:		APFS Volume	Recovery	528.9 MB	disk2s4	
5:		APFS Volume	VM	1.1 GB	disk2s5	
6:		APFS Volume	Macintosh HD	11.1 GB	disk2s6	
/dev/disk3	disk imag	ge):				
#:		TYPE	NAME	SIZE	IDENTIFIER	
0:			untitled	+10.5 MB	disk3	

10. Move to the USB drive with the following command:

cd /Volumes/PXE_SDSC

#### 11. Run the following command and substitute the "Disk0" with the disk you identified in step 2 above: ./ SDST2 -W1 -I disk0 -E

This will install our solution into EFI boot partition from disk0 and use External method.

softthinks...

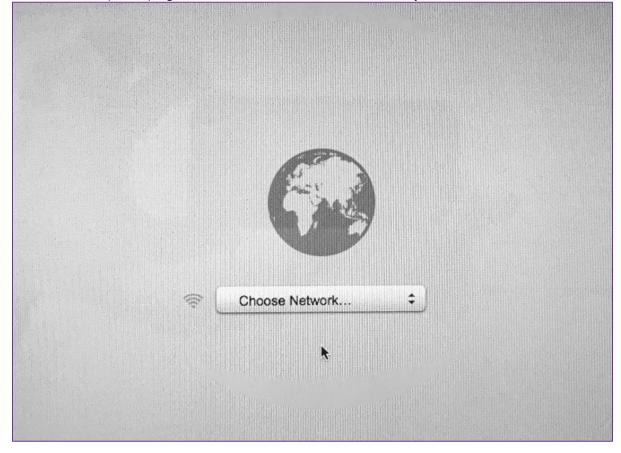
/dev/disk20 (disk image): #: 0:	TYPE NAME untitled	SIZE +6.3 MB	IDENTIFIER disk20
/dev/disk21 (disk image): #: 0:	TYPE NAME untitled	SIZE +524.3 KB	
/dev/disk22 (disk image): #: 0:	TYPE NAME untitled	SIZE +2.1 MB	IDENTIFIER disk22
/dev/disk23 (disk image): #: 0:	TYPE NAME untitled	SIZE +10.5 MB	IDENTIFIER disk23
/dev/disk24 (disk image): #: 0:	TYPE NAME untitled	SIZE +2.1 GB	IDENTIFIER disk24
<pre>bash-3.2# ./SDST2 -w1 -I  MacOS SDS tool 1.2, So  Setup SoftThinks SDS E Install external boot SDS disk signature: d118 Install boot files SoftThink PXE device ass Install done -bash-3.2#</pre>	ftThinks 2020 Woot	, reboot and choos	se proper device.

- 12. Once installed, reboot the computer, leaving the USB disk device connected.
- 13. When you hear the startup chime, follow the steps common to all x86 devices below



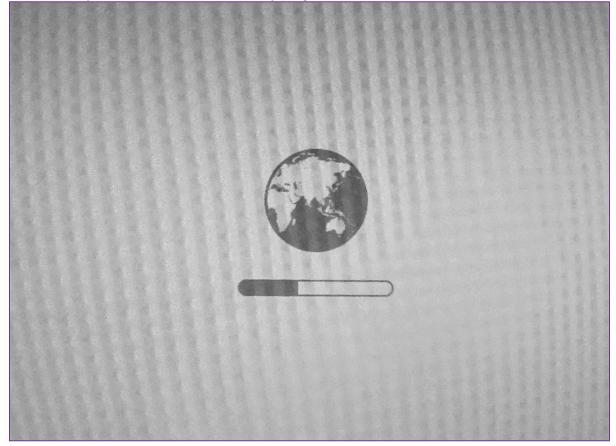
#### Steps common to all x86 macOS devices (with or without T2 chipset)

- 1. Boot the Mac in recovery mode: Press Option-Command-R or Shift-Option-Command-R, or press the option to display boot menu. Sometimes the internet recovery is displayed natively, depending on the BIOS.
- 2. Choose a Wi-Fi hotspot or plug in a network cable to initiate the recovery:



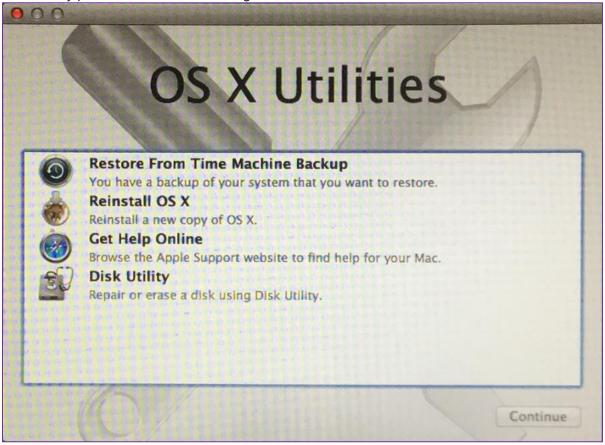


3. It will immediately start to download the recovery program:





4. Let the recovery process finalize. You should get this screen:



#### Partition the macOS system disk

5. Launch the Terminal from the "Utilities" menu:



6. Plug your SDS PXE boot key with the partitionDisk.sh script attached below that you will have been put on it, then navigate to the volume inserted and execute the script to setup the system disk size (we recommend to set the size to 32GB, knowing that the smaller will be the size, the faster will be that capture process):



partitionDisk.sh

## For a [APFS] single disk ./partitionDisk.sh_-single[apfs] 32 "Mac OS_X" 1

## For a [APFS] Fusion drive ./partitionDisk.sh -fusion[apfs] 32 "Mac OS X" 2

**Note:** On a Mac with a fusion drive, each disk will be setup with 32GB, so the logical container will be 64GB but it does not matter since the 2 disks will be captured.

Note: You can create two images on a Mac with Fusion Drive:

- One with the fusion drive (2 disks) to deploy on Macs with Fusion Drive
- One with only the first disk (SSD) to deploy on Macs without Fusion Drive

7. The partitionDisk.sh script will create the volume for you:

softthinks...

000	Terminal	-bash	- 97×42	
l-bash-3.2# cd /Volumes/				
(-bash-3.2# 1s				
OS X Base System PXE_SDSC				
[-bash-3.2# cd PXE_SDSC/ [-bash-3.2# ./partitionDisk.sh -single				
Creates a single partition jhfs+ with	32 "MacOS	_X" 1		
Started erase on disk0	name Macu	s_x on d	ISK /dev/dis	кө
Unmounting disk				
Creating the partition map				
Waiting for partitions to activate				
Formatting disk0s2 as Mac OS Extended	(Journale	d) with	name MacOS_X	
Initialized /dev/rdisk0s2 as a 113 GB	case-inse	nsitive	HFS Plus volu	ume with a 16384k journal
Mounting disk				
Finished erase on disk0				
Resize Physical Volume MacOS_X to 32g				
Resizing to 3200000000 bytes				
Started partitioning on disk0s2 MacOS Verifying the disk	5_X			
Verifying file system				
Checking Journaled HFS Plus volume				
Checking extents overflow file				
Checking catalog file				
Checking multi-linked files				
Checking catalog hierarchy				
Checking extended attributes file				
Checking volume bitmap				
Checking volume information				
The volume MacOS_X appears to be OK				
File system check exit code is 0				
Resizing Shrinking file system				
Modifying partition map				
Finished partitioning on disk0s2 Mac(	os_x			
/dev/disk0 (internal, physical):				
#: TYPE NAME	E		SIZE	IDENTIFIER
0: GUID_partition_scheme			*121.3 GB	disk0 disk0s1
1. EFI EFI	NO. 14		209.7 MB 32.0 GB	disk0s1 disk0s2
2: Apple_HFS Mac	bs_x		32.0 68	013/032
End of process - 0				
-bash-3.2#				



#### Install macOS

8. Select the option to reinstall:



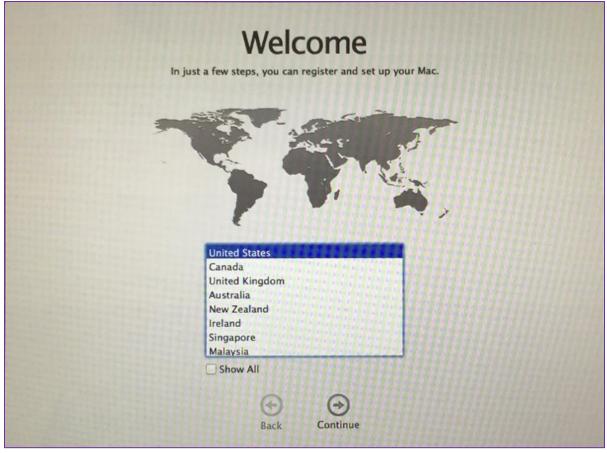


9. Select the volume previously created:





10. After some minutes or hours depending on your connection speed (about 5 GB to download), the computer will stop in the setup assistant welcome screen:

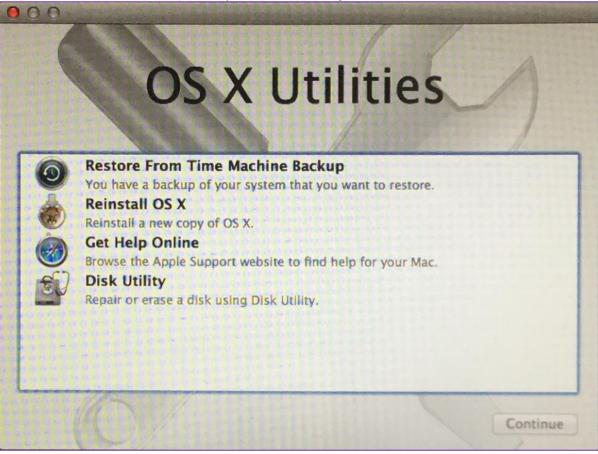


DO NOT CONTINUE this assistant or you will need to redo the whole process from the beginning.



#### **Resize macOS partition**

11. To complete the master creation, we need to install a resizing script. So, reboot to recovery (Option-Command-R or Shift-Option-Command-R or for option key at start depending on the Mac bios):





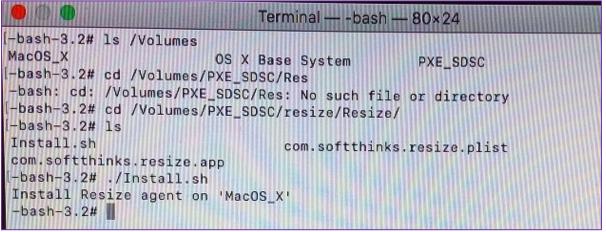


13. Execute the install.sh script from the "Resize" folder you had previously extracted from the archive below to your SDS PXE boot key:



#### ./install.sh

14. The script will copy the Automator com.softthinks.resize.app onto the Mac OS System Volume and install the service com.softthinks.resize.plist, which will be started automatically after the first setup assistant:



15. Now Switch off the Mac, the image preparation is done.



### Linux Image Preparation

We recommend you to wipe completely your disk before installing Linux.

SDS 18.0 has been validated with the following Linux distributions (default disk layout and filesystem):

- Ubuntu 16.04.4 LTS (x64)
- Mint 18.2 Sonya (x64)

# Capturing an image

### Windows Image

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- 1. PXE boot the computer to the SDS server (If needed, enable BIOS network boot option) or use bootable USB Flash drive with USB Ethernet adapter (See <u>How to boot from Bootable USB Flash Drive with USB Ethernet adapter</u>).
- 2. From the Welcome screen, select "Imaging" then on the next page select "Create Image".
- 3. In the menu screen,
  - a. Select the "Create new deployment image" option 💿 (the radio button will turn from grey to white)
  - b. Enter a description for the image ² (there is no naming convention required).
  - c. Check the option "Capture all kinds of volumes even if it is a Softthinks Recovery Partition" Concerned to create a Static Image or uncheck it for a Generic Image
  - d. Select your compression format (WIM is the default format, and the only one possible for **Generic Image**)
  - e. Set the split size 😶 to "No split" (except if you want to put the image on optical media)
  - f. Click on the Next button 🔨

		<b>6.11</b>
Softthinks Deployment S	Suite ⁷⁴	softthin
/lenu		
lease select an option to conti	inue.	
Wipe hard disk an	d deploy	
Create a Smartima	age	
O Create new deploy	ymentimage	
Enter the image n		6
LENOVO - 20270		
the second se	d of volumes even if it is a SoftThinks Recovery Partition	
Capture all dis	ks d	
Compression form		
Split size :	No split	
	Show disk topology	
	Show disk topology	



4. The image capture will proceed automatically (screens may differ):

softthink

**Note:** If there is any failure, the process will stop.



5. The image created will be transferred to the server:

X Softthinks Deployment Suite [™]	softthinks
Nelcome to the Imaging Wizard lease wait for the end of the image copy process	
Adding component to connected database folder 'N:'	
Copying file 'D:\TEMP_REIMAGING\271100629\PRELOAD\All.drvs' to database 44 % - 12288 KB/Sec	

**Note:** If there is any failure, the process will stop.



6. You will be notified that the process finished with no issues and you can choose to reboot or shutdown, or manually power down the device:

softthinks...

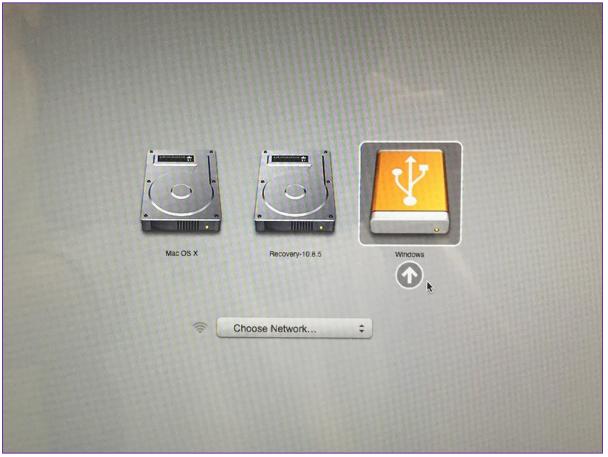


7. After the Image Capture is completed, it will be added automatically to the SDS Database and will be available to be deployed (See <u>Adding images</u>).

### macOS Image

softthinks...

1. You will first need to restart into SDS environment. Plug the UEFI SDS PXE boot key and press Option key and Select your Windows PXE boot key. Sometimes you will get two entries Windows + Windows EFI. Start with 'Windows' then 'Windows EFI' if the first one did not work:



2. From the Welcome screen, select "Imaging" then on the next page select "Create Image".



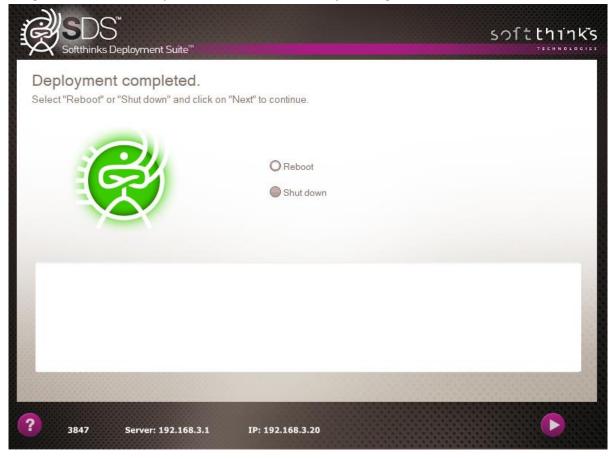
#### 3. The image is now being copied:

Softthinks Deployment Suite"	softthinks
Welcome to the Imaging Wizard Please wait for the end of the image copy process	
Adding component to connected database folder "N:"	
Security in the second	
Securing image created	
Creating MD5 hash from file "N:\TEMP\136095557\PRELOAD\PART0002\BASE.CIA"	
	Completed Cancel
	Gompleted. Cancel



4. The image will be automatically added to the database and you will get next screen:

softthinks...



In manual mode (when SDSImaging module is set to work manually), you will get the additional screen below between steps 2 and 3. On a Fusion Drive configuration, select both disks, if not select only the system disk as below:

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. . . . . . . .

Soft Soft	tthinks Deployment Suite"		softthinkis
Welco	me to the Imaging	Wizard	
Select disk:			
Disk			
10 10 10 10 10 10 10 10 10 10 10 10 10 1	: 0 - Model: APPLE SSD AM012		
	: 1 - Model: APPLE HDD ST10	00LM024 - Size: 931.513GB	
Select volu			
Letter	Volume Name	Size (MB)	
	EFI	200.00 30517.58	
	Boot OS X	128.00	
G	EFI	200.00	
Пн		30025.69	
	Dangung UD	610.00	
Split ima	age in 650 💌	MB chunks Compression type RAW	*
Include -	all volumes from disk (except re	covery partition)	
Include	SoftThinks Recovery		
image.	of the user partition based on t	ne Recove	
		N	lext Cancel
Contraction of			

And, still in manual mode, this one between step 3 and 4, once the copy is finished, where we suggest you to indicate the macOS version in the image description and to adjust other properties and information before clicking on the Next button:

softthinks...

NOLOGIES

	the Imaging Wizard sary information for the image.	
<ul> <li>IMAGE PROPERT</li> <li>Description</li> </ul>	IES Apple Inc Macmini7,1 (Mac-35C5E8120C7EEAF) - Ver:10.12	24
Article code	Apple inc Machinin7, 1 (Mac-33C3E6120C7EEAF) - Vel. 10.12	2.4
Language	English	
ADVANCED INFO		
Size (MB)	17573.14	
Compression	Raw	
Version	Windows 7 Windows 7 64 Linux Windows 2000 Windows XP Windows XP Pro Windows MCE Windows 2003 Windows 2003 64 Windows Vista	

### Linux Image

- 1. PXE boot the computer to the SDS server (If needed, enable BIOS network boot option) or use bootable USB Flash drive with USB Ethernet adapter (See <u>How to boot from Bootable USB Flash Drive with USB Ethernet adapter</u>).
- 2. From the Welcome screen, select "Imaging" then on the next page select "Create Image".
- 3. In the Menu screen,
  - a. Select the "Create new deployment image" option (the radio button will turn from grey to white)
  - b. Enter the name of the image **b** (there is no naming convention required)
  - c. Ensure that the option "Capture all kind of volumes even if it is a Softthinks Recovery Partition" 😎 is checked
  - d. Select "RAW" compression format d (other formats are not compatible with Linux images)
  - e. Set the Split size to "No Split" 💿
  - f. Click on the next button 🔨

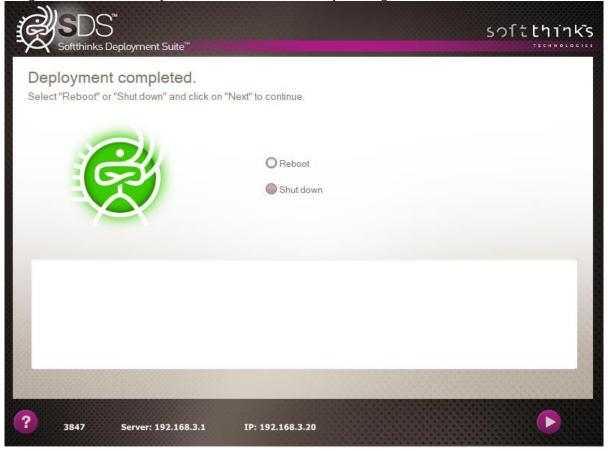
JE SUS		softthinks
Softthinks Deployment Suit	te™	TECHNOLOGIES
Menu		
VIECE COLOR DE LA		
Please select an option to continu	le.	
Wipe hard disk and d	leploy	
Create a SmartImage	e	
Create new deployme Enter the image name	ent image	
LINUX - Alienware X	2030	••••••
	f volumes even if it is a SoftThinks Recovery Partition	n
Capture all disks		
Compression format	RAW	
Split size :	No split	
	Show disk topology	
Create a deployment image from	N	
Create a deployment image from	the current operating system.	
: Alienware - Alienware X5	1 Serial: 9N7WMW1 Serv 😈	

#### 4. The image is now being copied:

Softthinks Deployment Suite [™]	softthinks
Welcome to the Imaging Wizard Please wait for the end of the image copy process	
Adding component to connected database folder "N:"	
Securing image created	
Creating MD5 hash from file "N:\TEMP\136095557\PRELOAD\PART0002\BASE.Cl/	A*
	Completed Cancel
5 LINK: 1000 Mbps - Broadcom NetXtreme Gigabit Etherne	

5. The image will be automatically added to the database and you will get next screen:

softthinks...



# Deploying an image

### Windows Image

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SDS solution give you the ability to deploy the images you created either manually or automatically. This chapter will first describe you the manual process, but you can go directly to <u>Automatic deployment</u> if you want more details on how to automate this process.

- 1. Boot your Windows device to the server and select the Imaging option from the Welcome Page.
- 2. If no ADF file is found you will proceed to the Profile, Preset screen:

	, Preset rofile, a Preset or clic	ck 'Cancel' to continue.				
me:	[		Preset	Profées	Compatible	Refresh



#### **Manual Deployment**

- 3. If you want to deploy an image manually (or have not yet setup a Profile, Preset, or ADF file), click on the Skip button in the "Profile, Preset" screen.
- 4. You will be taken to the SDS Image Selection Page and there you will select the image to be applied to the hardware that is connected. You can select the image you want from the full list (filtered by Language and/or Operating System) or search by name:

iearch:	an image to deploy.				
anguage :	English	*	Operating system:	All	Search
SDS image nam	10		OS Version	Type	Language
Backup Dell Inc Inspi HP static imag LENOVO - 346 LENOVO Ideap LENOVO Ideap LENOVO Ideap Windows 7 321 Windows 7 341 Windows 7 541 Windows 8 x85 Windows 8 x85 Windows 8 x85	e DTC5 Pad Z580 ad U430 ad U430 test sit it		Windows 7 64 Windows 8 64 Windows 7 64 Windows 8 64 Windows 8 64 Windows 8 64 Windows 7 Windows 7 64 Windows 8 64 Windows 8 64	MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic MHD_Dynamic	English English English English English English English English English English English
	S Image selected:			45	4,73 MB



5. If you have created a Smart Image for the computer model you are deploying then you can select it at this screen, or else click on Skip button:

Softthinks Deployment Suite"				sof	tthinks
SmartImage selection Choose a SmartImage.					
Search:				Compatible	Refresh
Name	Create from	Signature	PnP compatib	il Language Size	Rar
					-
					0
Size of SmartImage selected:					0.00 MB
Disk space required:				312	20.99 MB
		6			
<b>IP: 172.16.0.10</b> MAC: D4B	ED966540B	LINK: 100	5 🕩		

softthinks...



6. Select the applications to be installed during the deployment (choose them in the left list and click on '>' button to add them to the right list), or else click on Skip button:

softthinks...

Application selection			
elect the application(s) you want to in earch:		Jukebox	
Application	Refresh	Application	
BumInTest HP Quick Launch Buttons Lenovo Energy Management PC Angel 1.2.7 PC Angel 1.2.8 x54		BurninTest Lenovo Energy Management	
<	>	<	
Size of the application selected: Type:	45.26 MB Setup	Nb of Applications	



#### 7. Choose the recovery solution option:



**Note:** For a Windows 10 image, there is no "Recovery Solution on additional partition (dedicated recovery partition)" option. Select "No recovery solution" (restore user partition only)" for a Generic Image. You can install the SoftThinks Backup and Recovery (SBAR) solution as an application (please contact your commercial contact). For a Static image select "Keep original disk topology".



8. Configure the disk topology (the default disk layout can be changed if required, otherwise nothing needs to be selected):

INIT LCT-128M3S (119.243 GB)
3S - Total size (GB):119.243
(TES + Soft Thinks

**Note:** Additional User Partitions can be created by changing the Size (%) of UP1 to a smaller amount and then clicking the green « + » symbol on the right side of the Boot Disk line. The new partition will be created with the space that was made available.



9. Review the options that were selected for the deployment. After the countdown (15 seconds) or when you click on next button the deployment process will begin:

X Softhinks Deployment Suite"	78C#801
ummary	
our Order number/Profile: o Mac adress: 009E01D0FF01 our selection: o RIS Image (4584.73 MB): Windows 8 x54 o SmartImage Q:	
o Applications (56.00 MB): 1, BurnInTest 2, Lenovo Energy Management o Drivers: o Bundle: o Branding:None Disk space required: 4640.73 MB	
Recovery solution implemented on recovery partition Automatic size of 8640.73 I User partition information - User partition #1: NTFS Primary, all free space available, Drive letter, Cr. J	
e deployment will automatically start in 11 secondes	
Create h	ardware link Create a Preset

If anything is incorrect you can hover over the Left Purple Arrow and thumbnails of all the screens will show up. You can go back as far as you need to, but hurry as you only have 15 seconds to make your choice or it will advance to the next screen.

If you wish to create a new preset with the choices you made, click the "Create a Preset" button highlighted below. Please keep in mind the delay is only 15 seconds before the deployment starts automatically in order to click this button.

10. Once the countdown is finished, the process will begin based on your script and the choice you made from the Welcome Page.



#### **Automatic Deployment**

Automatic image deployments are what set SDS apart from other methods on the market. Three types of the Automatic Deployments (Preset, Profile, and ADF) are available to be created depending on what is being deployed. Once an Automated File is selected, all of the choices that were made will be set for the computer and the screens will blink all the way through to the Summary page.

#### Profile

A Profile is linked to the hardware of a model of computer, but does not have a unique identifier in the name. Profiles are useful when you have multiple images of the same OS for the same model of computer (i.e. computers for schools or other organizations that have different images for different departments). A profile needs to be selected from the Profile/Preset Page in order to run.

To create a Profile, click on the "Create a Profile" button and give it a name without spaces or symbols related to the image (note: the button is selected when it turns white), and click on "OK" button to continue:

Softthinks Deployment Suite"	
Automatic selection	
Please choose the automatic deployment selection type	e you want to save
Profile/Preset name:	
AccountingWindows10Pro64bit	
O Create a Profile	
A Profile can only be used with computers containing	ng same PnP IDs
Create a Preset	
A Preset can be used for all computers regardless of	of their PnP IDs
Create an 'ADF'	
ADF can be used for all computers regardless of the	eir PNP IDs.
	Log Cancel O

Your profile has now been created and will be available to use on future deployments.

**Note:** You will get this error if you try to put a space between words in the name:

Please, only use Alpha numeric value (A - Z, a - z, 0 - 9, _ or -)	3
ок	

#### Preset

A Preset is not linked to any hardware and does not have a Unique Identifier in the name. It is used to deploy Generic Images to any model of computer with the same choices. A preset needs to be selected from the Profile/Preset Page in order to run.

To create a Preset, click on the "Create a Preset" button and give it a name without spaces or symbols related to the image (note: the button is selected when it turns white), and click on "OK" button to continue:

Softthinks Deployment Suite"	softthink
Automatic selection	
Please choose the automatic deployment selection type you want to save	
Profile/Preset name:	
Mindaws10Pro64bit	
Create a Profile	
A Profile can only be used with computers containing same PnP IDs	
O Create a Preset	
A Preset can be used for all computers regardless of their PnP IDs	
Create an 'ADF'	
ADF can be used for all computers regardless of their PNP IDs.	

Your profile has now been created and will be available to use on future deployments.

Note: You will get this error if you try to put a space between words in the name

SDSsummary	
Please, only use Alpha numeric value (A - Z, a - -)	z, 0 - 9. <u>.</u> or
	ок

#### ADF (Automated Deployment File)

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An ADF is linked to the hardware of a model of computer, and uses a unique identifier in the name. An ADF does not need to be selected to run. If the hardware of a computer matches the hardware of the ADF and the Unique Identifier also matches, then the system will automatically run the ADF as soon as Deploy or any variation of Deploy is selected. ADF are useful if you only have one image for an Operating System for a specific model of computer.

To create an ADF, click on the Create an ADF button. In most cases the name for the ADF will be the Motherboard Part Number (sometimes the computer model number will have to be used.)

To get the Motherboard Part Number, click the Log button near the bottom of the screen and the Log file for the deployment of that computer will open up from the RAM of the computer:

```
File Edit Format View Help
<?xml version="1.0" encoding="utf-16"?>
<Deployment>
        <Hardware>
                 CPU:Intel(R) Core(TM) 15-2520M CPU @ 2.50GH
                MOTHERBOARD:Dell Inc. - 032T9K - A01
BIOS VERSION/DATE:A23 - 01/04/2016
                 RAM DETECTED: 4096 MB (BANK 0(2048/DDR3/1333) - BANK 2(2048/DDR3/1333))
                MANUFACTURER:Dell Inc.
                 PRODUCT:Latitude E6420 ()
                 VERSION:01
                 SERIAL: 93QXVR1
                 NIC SPEED/NAME:1000 Mbps - Intel(R) 82579LM Gigabit Network Connection, V=12.12
                 GRAPHIC RES:1366 x 768 (32 bits - 96 DPI) | (1) - GF119M [NVS 4200M]
                 SOUND CARD: (2) - GF119 HDMI Audio Controller+6 Series/C200 Series Chipset Family High Definition Audio Con-
                 OPTIC DRIVE: TSSTcorp, DVD+-RW TS-U633J, D600 (E)
                 FIXED DISK: SAMSUNG SSD PM830 2.5" 7mm 128GB - 119.24 GB (C,D - MBR)
                WINPE: Microsoft Windows 10 Ultimate Edition, 64-bit (build 10586) - LEGACY BIOS Boot
        </Hardware>
        <Flow Name="AIM eCycling #1">
<Module ID="101" ResultData="
                 Initializing module version='1.0.0.35' with file 'DemoFirstPage.ini'
                 Module Initialization done.
                Starting module with: Param1=0x00000001 - Param2=0x00000000
                Module start: 28/07/2017 16:00:35
                Module started properly.
                User selection:
```

The Motherboard Part number (if listed in the BIOS of the computer) will be in the hardware list of the computer in the top section of the log file. Highlight it and Copy the Name. Then close the log and paste the name into the Profile/Preset name box:

Softthinks Deployment Suite		softthi
Automatic selection		
Please choose the automatic deple	oyment selection type you want to save	
Profile/Preset name:		
032T9K		]
Create a Profile		
A Profile can only be used with	computers containing same PnP IDs	
Create a Preset		
A Preset can be used for all co	imputers regardless of their PnP IDs	
O Create an 'ADF'		
	uters regardless of their PNP IDs.	

Your ADF has now been created and will be available to use on future deployments.

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If the current device doesn't match an existing ADF file, select a Profile / Preset (See <u>Definitions, Acronyms and</u> <u>Abbreviations used in this user guide</u>) to deploy **automatically**. You can search for specific profile/preset/ADF name and filter them by type ², and if one is matching your need in the list ³ ("HPPROBOK5330" in our example), select it (you will notice on the right panel the OS being deployed ⁴) and click on Next button:

Softthinks Deployme Profile, Preset Select a Profile, a Preset or					
Name: HPPROBOOK5330	Os Win10Test Application(s)	Preset	Profiles 2	Compatible	Refresh
< > ? C: 80C16E555546	LINK: 1000 Mbps - Intel		ৰ ত		,

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### macOS Image

Once an image is added to the SDS database, it will be possible to apply it to any Mac, usually the same Model that you captured the image from. However, some other models could use the same image.

A Mac can be identified in BIOS with a hardware ID. For example, in red.

> CPU:Intel(R) Core(TM) i5-4308U CPU @ 2.80GHz MOTHERBOARD:Apple Inc. - Mac-35C5E08120C7EEAF - Macmini7,1 BIOS VERSION/DATE:MM71.88Z.0220.B14.1702161608 - 02/16/2017 RAM DETECTED:8192 MB (BANK 0(0/DDR3/1600) - BANK 1(0/DDR3/1600)) MANUFACTURER:Apple Inc. PRODUCT:Macmini7,1 (System SKU#) VERSION:1.0 SERIAL:C0KT800UGF1T NIC SPEED/NAME:100 Mbps - Broadcom NetXtreme Gigabit Ethernet Driver, V=17.2 GRAPHIC RES:1024 x 768 (32 bits - 96 DPI) | (1) - Haswell-ULT Integrated Graphics Controller SOUND CARD:(2) - Haswell-ULT HD Audio Controller+8 Series HD Audio Controller OPTIC DRIVE: FIXED DISK:APPLE SSD SM0128F - 113.00 GB ( - GPT) APPLE HDD ST1000LM024 - 931.51 GB ( - GPT)

If you look closer at the recovery in the RIS folder of the image you will find 2 *.plist files which identify the Mac OS version and the platforms supported by the OS version:

	<pre>1 3 <?xml version="1.0" encoding="UTF-8"?></pre>
VKDB > RIS > RIS_IM000005	2 plist PUBLIC//Apple//DTD PLIST 1.0//E</th
N	3 = <plist version="1.0"></plist>
A	4 🛱 <dict></dict>
Nom	5 —> <key>SupportedBoardIds</key>
	6 ⊟> <array></array>
PHYSICALDRIVE1	7 $\longrightarrow                   $
THISICAEDRIVET	8
PRELOAD	9 → <string>Mac-A5C67F76ED83108C</string>
TREEDAD	10 $\longrightarrow < string>Mac-66E35819EE2D0D05$
dsk_S033.hex	11 $\longrightarrow < string>Mac-50619A408DB004DA$
	12
MASTER.LOG	13
	14
PlatformSupport.plist	15 → <string>Mac-942B59F58194171B</string>
	16 → <string>Mac-B809C3757DA9BB8D</string>
🛛 SystemVersion.plist	17
	18 → <string>Mac-35C1E88140C3E6CF</string>
	19 → <string>Mac-77EB7D7DAF985301</string>
	20 → <string>Mac-2E6FAB96566FE58C</string>
<b>I</b> ++	21 → <string>Mac-7BA5B2794B2CDB12</string>
	22 → <string>Mac-BE0E8AC46FE800CC</string>
PlatformSupport.plist	23 → <string>Mac-00BE6ED71E35EB86</string>
r actorn Support.plist	24 $\longrightarrow$ <string>Mac-4B7AC7E43945597E</string>

You can check this file to see what other Mac plaforms can use this same image. Some Mac mini could have different hardware but this image could probably support other Mac. You have to check in those files.

If you have an old MacBook Pro 10.8.5 like this one: 'Apple Inc. – MacBook Pro 9.2 (Mac-6F01561E16C75D06)' you will notice that the image captured is supporting my MacBook Pro so you can download it directly without update through ITunes.

Since we are using a Bootcamp driver to mount HFS+ partition only reading is possible.

To download a Mac OS image in SDS you will need an adapted script. Since volumes are read-only no modules are able to add anything to the image deployed under WinPE environment.

Adapt your SDS script. It is identical for the capture, only the download was adjusted as follow:



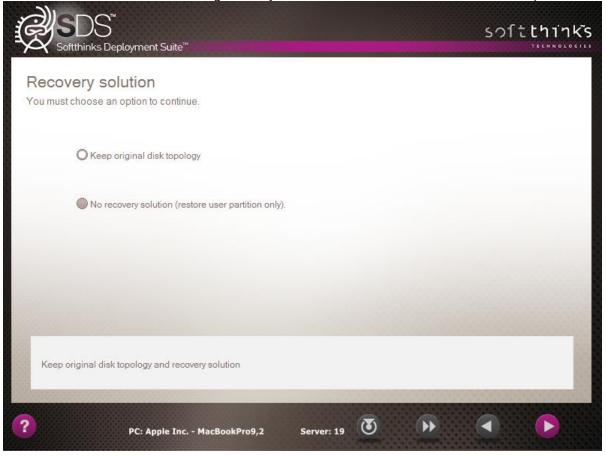
- 1. Boot your device to the SDS Server and select the image deployment option
- 2. Select the image:

softthinks...

SDS Image sel	ection			
lease select an image	to deploy.			
earch: MacBook	Pro9,2 (System SKU#)			
anguage:	Operating system:	-	Туре	
	MacOS X		All	▼ Search
Apple Inc MacBookPro	9,2 (Mac-6F01561E16C75D06) 9,2 (Mac-6F01561E16C75D06)	OS Version MacOS X MacOS X	Type Static Static	Language English English
		MacOS X	Static	English



3. Select the method to download the image, usually it is automatic but here we are in a manual process:





#### 4. Configure the disk topology:

Softthinks Deploy	ment Suite™	softthink
Disk Managem	ent	
	pology in order to continue to deploy this computer.	
Options / Information	5	^
Recovery size (MB)	0	
Use (%)	No	
Disk layout	GPT	
Target Disk	Idx:0 - APPLE HDD HTS547550A9E384 (465.762 GB)	
BOOT DISK - Model: Al	PPLE HDD HTS547550A9E384 - Total Size (GB): 465.762	
UP1	200 MB • FAT32 • EFI	
Label	EFI	
File system	FAT32	
Size (MB)	200	
UP2	472170 MB • RAW • Mac OS X	
Label	Mac OS X	
File system	RAW	
Size (MB)	472170	
UP3	619 MB • RAW • Recovery HD	<b>*</b>

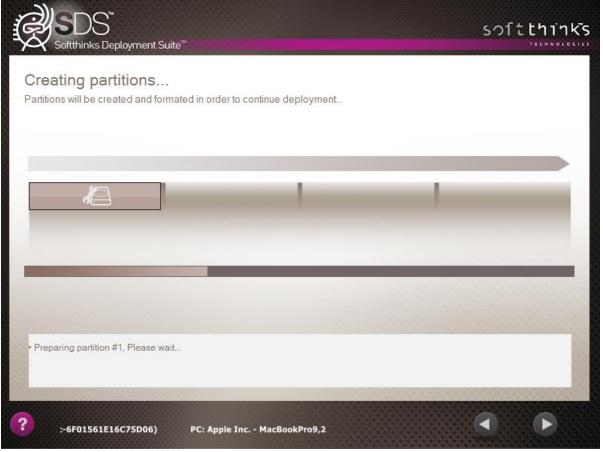


5. Review the summary before the deployment begins. You will have 15 seconds:

Summary			
o Applic o Driver o Bundl o Brand - User p - User p	A8206656D275 o RIS Image (40322.28 MB): Apple Inc MacBookPro9,2 (Mac-6F015 tImage (): eations (0 MB): s:	information er: C: r: D:	
	ill automatically start in 9 secondes		v.



#### 6. Partition creation:



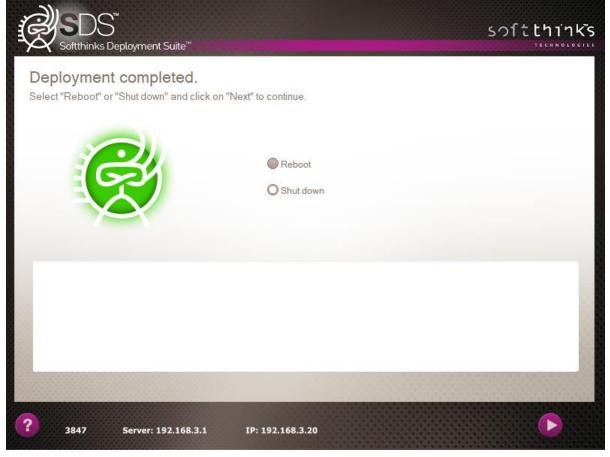


#### 7. Image restoration:

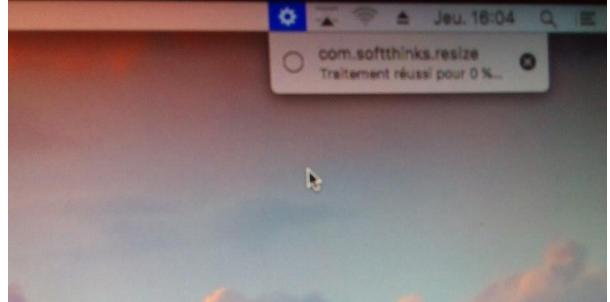
Softthinks Deployment Suite"	softthinks
Deployment Please wait	
S.	
1%	
Image to populate: Apple Inc MacBookPro9,2 (Mac-6F01561E16C75D06) Extract N:\RIS\RIS_IM000192\PRELOAD\PART0002 To D:\	
Apple Inc MacBookPro9,2 (Mac-6F01561E16C75D06)         PC:         Image: Content of the second se	



8. Process completed. You can now reboot the Mac to the setup assistant:



9. On first boot, once the user has setup his account, the setup assistant will be executed and the System Volume will be extended to its maximum size available. A file ResultResize.txt will be created in Library folder of the current user (~/Library). It contains the output generated by Shell Script in the automator. It will look like those 2 pictures:



	89 (B)	ilitaire de disque	nter Infos	
Fusion Drive MacOS_X	MacO		endu (journalisé)	
	Utilisé 11,11 Go	Purgeable 28,3 Mo	Disponible 1,1 To	
	Point de montage :		Type :	Volume logique
	Point de montage : Capacité :	/ 1,11 To	Type : Disponible (purgeable + vide) :	Volume logique 1,1 To
	Point de montage : Capacité : Utilisé :	/ 1,11 To 11,11 Go		

You can see that our image of 32GB by disk is expanded to the whole disk capacity of 1.1TB.

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# Linux image

- 1. Boot your device to the SDS Server
- 2. Select the image deployment option ² ("Wipe hard disk and deploy" in our example) and click Next:

<b>NU</b> se select an option to continue.			
O Wipe hard disk and deplo	y <b>2</b>		
Create a SmartImage			
Create new deployment in Enter the image name.	nage		
Alienware - Alienware X5	1		
Capture all kind of volu	imes even if it is a SoftThin	ks Recovery Partition	
Compression format	WIM	*	
	650 MB	*	
	perating system.		



#### 3. Select the Linux image and click Next:

SDS Image se Please select an imag				
Search:	e to deploy.			
anguage:	Operating system:		ype	
anguage.	<ul> <li>Linux</li> </ul>	-	All	<ul> <li>Search</li> </ul>
DO MARINE MARINE		0004/002200		
	- Ver:Linux Mint 18.2 Sonya	OS Version Linux	Type Static	Language English
LINUX - Alienware X51	- Ver.Linux Mint 18.2 Sonya	the second second		
SDS image name LINUX - Alienware X51 Size of SDS Image Disk space require	selected:	the second second		



4. Choose "Keep original disk topology" option and click Next:

Softthinks Deployment Suite"	softthinks
Recovery solution You must choose an option to continue.	
C Keep original disk topology	
No recovery solution (restore user partition only).	
Recovery solution on additional partition (dedicated re     Option	covery partition)
Keep original disk topology and recovery solution	
? PC:	Alienwa



#### 5. You image is now being deployed:

Softthinks Deployment Suite"		softthinks
Deployment Please wait		
8%	96.	
Image to populate: LINUX - Alienware X51 - Ver:Linux Mint 18.2 Sonya Extract N:\RIS\RIS_IM000175\PRELOAD\PART0003 To D:\		
PINAGE: LINUX - Alienware X51 - Ver:Linux Mint 18.2 Sonya	3	



# Auditing and/or Diagnosing a Windows or Mac OS device

1. Click the Audit/Diagnostics button as seen on the image below :

oftthinks	Tech ID Asset Tag		
	SKU Number		
	Customer Name		
Audit/Diagnostics	Imaging Rep	pair Wipe Only	



2. From there you will see the following menu:



3. Clicking on the Audit Only button will take you to the Deployment Finished screen as the Audit is actually completed when the computer PXE boots to the Server and the information is sent automatically to the database:

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CHNOLOGIES

Softhinks Deployment Suite"		softthinks
Deployment finished Select Reboot or Shutdown and click o	n 'Next' to continue	
	C Reboot	
(?) 192.168.0.11 MAC: 5C26	0A76EBB1 LINK: 1000 Mb	D

4. You do not need a Hard Drive in the computer to run the SDS software on it. You can diagnose a computer with or without a Hard Drive. Clicking on Audit With Diagnostics will run the testing for computers with a Hard Drive.

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5. The first test will be a SMART test for the Hard Drive if the SMART Technology is present in the Hard Drive. If SMART Technology is not available on the Hard Drive, it will perform a random 5% Read/Write sampling of the Drive.

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6. Once the SMART testing is completed, then the BurnInTest will start. These tests will run simultaneously and independently from the technician. This can be modified to test any component that is not driver related (CPU, RAM, Hard Drive, Battery, Temp, 2D Graphics, Keyboard, etc.), and will run for as long as you want with as much stress as you want to put on it.

Controlled by: 192.188.0.1 - (Elentit) connected: 1)           Withors of Cosenitor           Test         Threads Executed         Verified           General: 4         6973.6         6973.6           Floating Point: 0         2251.2         2251.2           Extensions: 0         7390.5         7390.5           Primes: 0         12.5         12.5           Mar Heat:         N/A         ************************************	Blumknitest-Battery-Standard     Qide 6     P1:2     P2:2	BurninTest V&I Pro (1022)     File Edit Configuration Tr     System Information     Burn In     Results for MININT-S2CUS     Test configuration file: with     Start time: Thu Aug 0	Current of Current of Results Events Even MK	onfiguration v	ature	0	Status: RUNVING Duration: 000h 00m 24s	- • ×
Burnh Field         - Memory (RAM) - Standard           Spele 0: Testing         66%           Vattern:         64-bit Sequence (0, 1, 2,)           vattern:         64-bit Sequence (0, 1, 2,)           vice RAM:         2195, 0 MB           rear RAM:         2195, 0 MB           Wester Winttern:         95, 0 ME           Wester Winttern:         95, 0 ME           Speed (W / R):         0, 0 / 279, 0 ME/sec           20 Graphics - GUT Fett         20	BurninTer: - Old: First       Dda: C: - Cycle 35 Writing High free, pair       D%       Pree disk scan progress:       Pattern:       High Low free over       Möyrtes Vritten:       1998.       Current Speed :       211.8 MB/Sec	2D Graphics	Cyde 0 6 1 35 0	Operations 274379 6 16.628 Billion 3.949 Billion 1.620 Billion	Errors 0 0 0 0	Last Error Description No errors No errors No errors No errors No errors No errors		
D PascMark     D	A PassMark     B PassMark     B PassMark     B PassMark     B PassMark     D PassMark     D PassMark     D PassMark     D PassMark     Z PassMark     Z PassMark     D PassMark     Z PassMark     D PassMark     Z PassMark     D PassMark     Z	1 1 1 tons v errors by categories						ь. 

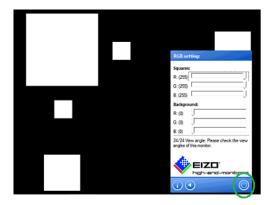


7. Tests not shown above that can be run before the simultaneous testing begins include the Eizo Monitor test :



To perform this test, select the play arrow in the lower right corner. This will start a series of display tests such as color display and dead pixel identification, and etc.

On the final screen below you will select the "close" button highlighted below to move to the next set of testing.

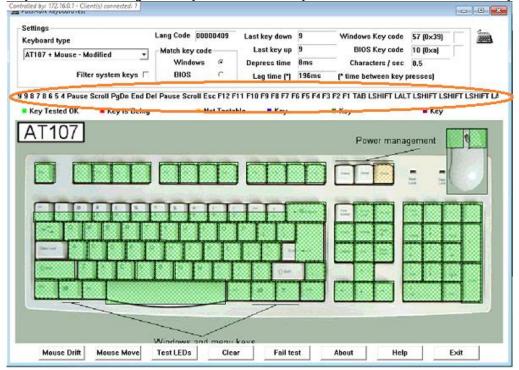




8. And the Keyboard Test. This test verifies the functionality of the unit's keyboard and will appear as the image below:



For this test you will click the touchpad buttons and press all keyboard keys and watch the screen for a response to the corresponding keystroke. You will also be able to see the keystroke in the area of the test circled in the next image. This image is an example of a passed keyboard. Notice that not all keys are highlighted in Green. This is because the keyboard test uses a generic layout and not all keyboards have the same functionality.



Once the Keyboard test has been completed select EXIT in the lower right corner on the screen. This will bring up the following: Select Yes-Pass Keyboard or No-Fail Keyboard to continue.



Windows [®] Depress time 8ms        Characters / sec 0.5          Filter system keys [®] BIOS           Lag time (*) ^{196ms} Characters / sec           0.5          9 8 7 8 6 5 4 Pause Scroll PgDn End Del Pause Scroll Esc F12 F11 F10 F9 F8 F7 F6 F5 F4 F3 F2 F1 TAB LSHIFT LALT LSHIFT LS	Settings Keyboard type	Lang Code 00000409	Last key down	9 Window	vs Key code 57 (l	0×39)	1
9878654 Pause Scroll PgDn End Del Pause Scroll Esc F12 F11 F10 F9 F8 F7 F6 F5 F4 F3 F2 F1 TAB LSHIFT LALT LSHIFT LSH Key Tested OK Key is Being Not Testable Key Key Key Key AT107 Vea-Pass Keyboard No - Fail Keyboard No - Fail Keyboard No - Fail Keyboard No - Fail Keyboard		Windows @	Depress time	8ms Char	acters/sec 0.5		
AT107 Did all keys test successfully.? Did the LEDS function correctly ? Did the mause function correctly ? Yes - Pass Keyboard No - Fail Keyboard	9 8 7 8 6 5 4 Pause Scroll PgDn End D	el Pause Scroll Esc F12 F	11 F10 F9 F8 F7 F	6 F5 F4 F3 F2 F1 TAE	B LSHIFT LALT LSH	IIFT LSHIFT L	SHIFT I
		Did all ke Did the LE Did the me Yes	cys lest successfu EDS function corre puse function corre » - Pass Keyboard	ctly ?	wer manageme	-	
Windows and monit kave					5¢		

 After the testing is completed, if a test fails you will see a screen similar to the one below: The one below is for a Battery that failed for not being able to charge past 75% of its battery threshold. At this point the system will not continue. You will have to shut down the unit manually after you review the

At this point the system will not continue. You will have to shut down the unit manually after you review the information displayed.

X Softthinks Deployment S		0	21		
		5	<u>))</u>		
			×		
echeck report			_		
Unique ID: 3391LGC-LGC2. Designed capacity: 62160	SDELL TVM	VN24 Nanufacture city: 33167 mWh	voltage	GC2.8 [	Serial number: 3391] / Charge Rate: OnW Status: A/C Pc
st Name CPU Memory (RAM)	Cycles	Operations 456 Billion 5.897 Billion	Result PASS PASS	Errors 0 0	Last Error No errors No errors
2D Graphics	15	5.152 Million	PASS	00	No errors
Battery	18	18	PASS FAIL	6	No errors Battery threshold exceeded error
Keyboard Disk (C:)	0	221 28,720 Billion	PASS	0	No errors
ST RUN FAILED	ĭ	51920	PASS	ŏ	No errors
31 KUN PAILED					
RIOUS ERROR SUMMARY FOR	THE LAST	TEST RUN			
RIOUS: 2017-06-18 23:42:			ery thr	eshold ex	ceeded error (x 6)
					_
		- W - 24	100		>
		FA	ALL		



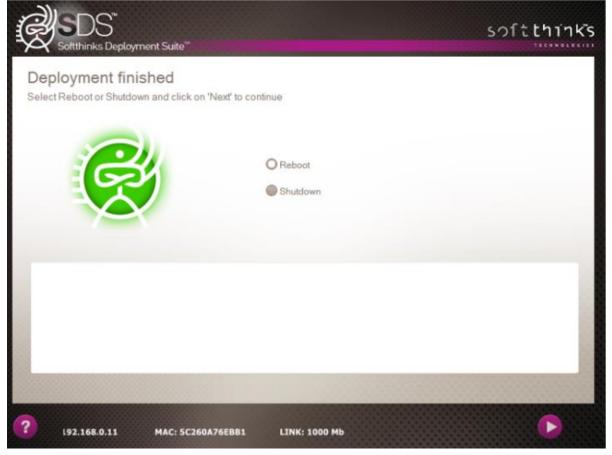
10. If the unit passes all tests the following screen will be displayed:





11. The computer will then automatically go to the Deployment Finished Screen:

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You can then choose to Reboot or Shutdown the computer at this point.

# Wiping a device

SDS can wipe any HDD and SSD (or removable drives as memory cards if needed), even with MS Bitlocker, and HPA/DCO technologies* (if your target disk already has an HPA / DCO installed, we can deactivate / remove HPA and remove DCO before a wipe operation).

All cards compatible with CSMI protocol (*Common Storage Management Interface*) are supported. LSI HBA SAS/SATA cards flashed to IT firmware are also supported through LSI utility SASxIRCU.exe, which is working under WINPE 10.240. Some cards not compatible with CSMI could work if a dump tool exist as third party to list disk SAS address.

SDS wiping process is certified by ADISA:



SDS supports the 19 most popular wiping protocols:

- 0 Basic 0
- 1 Basic random character
- 2 U.S. Standard, DoD 5220.22-M
- 3 U.S. Standard, DoD 5220.22-M (e)
- 4 U.S. Standard, DoD 5220.22-M (ECE)
- 5 US Army AR380-19
- 6 Peter Gutmann
- 7 Bruce Schneier
- 8 German VSITR
- 9 Russian GOST P50739-95
- 10 NAVSO P-5239-26 (RLL)
- 11 NAVSO P-5239-26 (MFM)
- 12 Canadian RCMP TSSIT OPS-II
- 13 US Air Force 5020
- 14 U.S. Standard, DoE M205.1-2
- 15- Delete Partitions
- 16 Normal Secure Erase (NIST 800-88)
- 17 Enhanced Secure Erase (NIST 800-88)
- 18 Sanitize (NIST 800-88)

* HPA (Host Protected Area) and DCO (Device configuration overlay) designate a hidden area on many of today's hard disk drives.

Some Standard Basic wipe algorithms like DOD include verification during the wipe process.

You could also install thumbprint after wipe operation, install legacy boot loader reflecting wipe result or simply create a data partition on the disk to get it ready to use.



SDS 18.0 added the ability to have thumbprint string loaded from a file rather than specified in the script. This allows for different thumbprints to be used. This file size is limited to 512 bytes (since a disk sector is 512 bytes).

## Rack Mode

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SDS Wipe solution supports CSMI compliant racks (without limitation on the number of ports).

# 24-Port Wipe Arrays

- Port mapping allows for quick drive identification and hot-swapping.
- Hard drive smart testing.
- 6Gb/s Data rate to the drives (based on the controller).



Y <b>C (</b> Sittena Depleym			
Disk Cleaner	anitand using a secured adjust	w.	
Set 8			
Lauri Information	· mark with assessment	O THE REAL OF	
	ADVICT HTM CRO. FURT	Real HILLING	But POLICION
<b>6 1 1 1</b>	<b>6</b>	<b>6 1 1</b>	<b>6</b>
The second second	<ul> <li>Insection accession</li> </ul>	A state of Constant of Cons	C Investorsantal
		i i i i i i i i i i i i i i i i i i i	- <b>i</b>
A HEALTH PERCENTION	C READERED AND	C HEROLANSKI	Provide Housing
Revi etcona ello			Barn HTCL MILLION
Belait att the second		C HERRISON	
		a a distance manualiti	a all and a second second
		0	

The Wipe Arrays can be purchased from SoftThinks or we can tell you the components needed to build them yourself.

Please refer to How to setup wipe rack view to enable the Rack view mode.

<u>Note</u>: In rack mode, you can wipe full disks, not volumes. All other options from the classic mode are available, as fullscreen or window mode, or starting automatically the wipe process.

<u>Note</u>: For the moment SDS Wipe rack mode does not support enclosure or expander.



Secure Erase and Sanitize protocols are more dedicated to SSDs since they are quicker (5min for a SSD wiped with Secure Erase / Sanitize vs 120min to wipe a mechanical HDD of the same size) and prevent decreasing their lifetime, but they can be used with mechanical HDDs.

Those protocols are managed directly by the disk firmware itself and so they are usable only on disks supporting them (some NVMe don't support those protocols).

Both can be used through ATA / SATA / SAS card (CSMI protocol compliant), but not through USB.

The target disk has to be configured as AHCI in the BIOS.

Secure erase protocol does not provide progression or status of the operation whereas for Sanitize protocol a progression is available with a time remaining but it depends on the disk firmware capabilities.

In addition, the abort operation is not possible (not supported by protocol)

Once a disk started to wipe itself you could not interrupting it is like secure erase command

If Secure Erase or Sanitize protocol are not possible, we will switch back to a default wipe algorithm which can be customized or raise an error.

#### **Secure Erase**

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- Normal: write 0 or 1, depending of disk manufacturer
- Enhanced: write a predefined pattern

#### Sanitize

The sanitize protocol supports 3 modes:

Block Erase Ext:

The BLOCK ERASE EXT command starts a block erase sanitize operation (i.e., a sanitize operation (see 4.17.4) that uses the block erase method on the user data areas, including user data areas that are not currently allocated (e.g., previously allocated areas and physical sectors that have become inaccessible)) to cause the user data to become irretrievable.

• Crypto Scramble Ext

The CRYPTO SCRAMBLE EXT command starts a crypto scramble sanitize operation (i.e., a sanitize operation (see 4.17.4) that changes the internal encryption keys that are used for user data) causing the user data to become irretrievable.

Overwrite Ext

The OVERWRITE EXT command starts an overwrite sanitize operation (i.e., a sanitize operation to overwrite the internal media with a constant value) that fills physical sectors within the Sanitize operation scope with a fourbyte pattern specified by the OVERWRITE PATTERN field of the command. The host also specifies a count for multiple overwrites and whether to invert the four-byte pattern between consecutive overwrite passes.

SDS will choose the first available mode in order to get the best performance and compatibility.

# Example of wipe user interface

1. Select the Wipe Only Button from the Welcome Screen:

Softhinks Deployment Suite"			softthink
soft thinks	SKU	Tech ID sset Tag Number er Name	
		<u>,</u>	
Audit/Diagnostics	Imaging	Repair	Wipe Only
2 >ps - Intel(R) 82579LM Gigabit	Network Connection, V=12.1	2 0	» <b>(</b> )

2. In the next screen below, you will be asked to choose the wipe algorithm: SoftThinks ADISA Certified Single-Pass Basic 0 wipe, or the 3-Pass U.S. Standard, DoD 5220.22-M wipe. You will also have the choice to do the wiping with or without hardware testing of the computer or Array that the Hard Drives are in:

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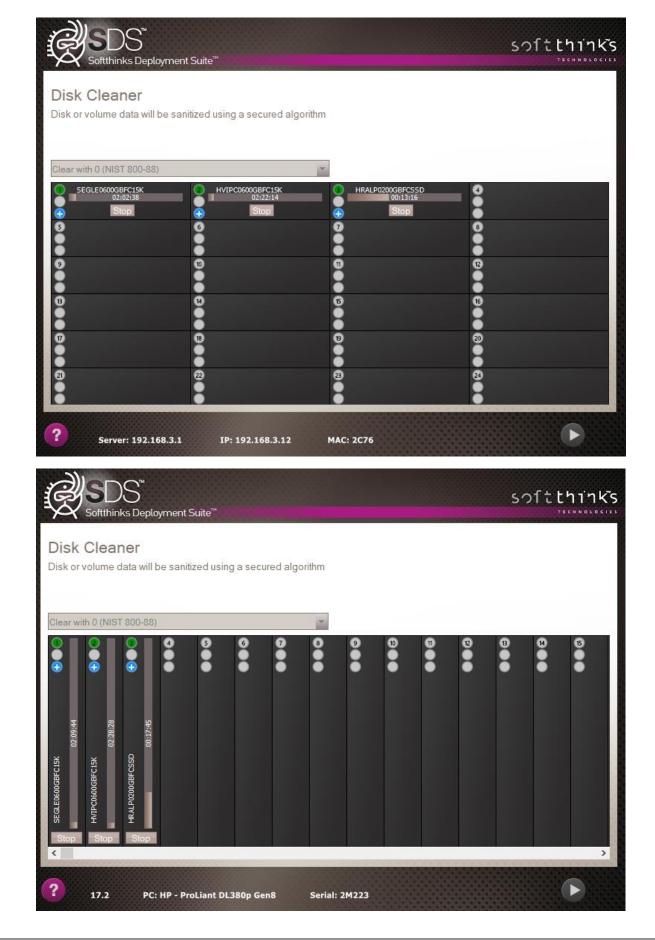
In addition, you could also be informed about SMART disk status (OK/Bad/Warrning/Unknown colored cross) before wiping a disk. It will save your time and will avoid you refurbishing crappy disk.

3. a) This screen displays the Hard Drive information and progress of the wipe ³. Any Hard Drive that is found in the computer will be wiped with the same protocol and listed below. The STOP button will cancel the wipe in progress. If successful, a screen will pop up with a "green" pass symbol. If the wipe fails for any reason the "red" fail symbol will display.

	S [™] :s Deployment Suite™	softthinks
Disk Clean	er ata will be sanitized using a secured algorithm	
Clear with 0 (NIST	800-88)	
Stop	Disk ID: 0 - Model: SEGLE0600GBFC15K - Size: 555.627 GB - SN: 6SL80TTR0000B4290P64 - #: PCIROOT(20)#PCI(0200)#PCI(0000)#PCI(0200)#PCI(0000)#FIBER(C00T00L00) 02:14:17	
Stop	Disk ID: 1 - Model: HVIPC0600GBFC15K - Size: 556.292 GB - SN: CZX1ZVJN - #: PCIROOT(20)#PCI(0200)#PCI(0000)#PCI(0200)#PCI(0000)#FIBER(C00T01L00) 02:33:48	
Stop	Disk ID: 2 - Model: HRALP0200GBFCSSD - Size: 189.222 GB - SN: XQVJXAPB - #: PCIROOT(20)#PCI(0200)#PCI(0000)#PCI(0200)#PCI(0000)#FIBER(C00T02L00) 00:21:23	
? _P	C: HP - ProLiant DL380p Gen8 Serial: 2M2232026V	D

b) In the rack mode, the screen looks like one of the screenshots below (the number of lines and columns can be customized as explained in <u>How to setup wipe rack view</u>):

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The 1st LED indicates if a device is plugged at this location in the rack:

- No device
- Device present

The 2nd LED shows if the wipe process completed successfully or not:

- No wipe in progress, or wipe not completed
- Wipe completed successfully
- Wipe failed

The 3rd LED corresponds to the SMART status:



Note: If the SMART status is unknown you cannot use secure erase or Sanitize methods.

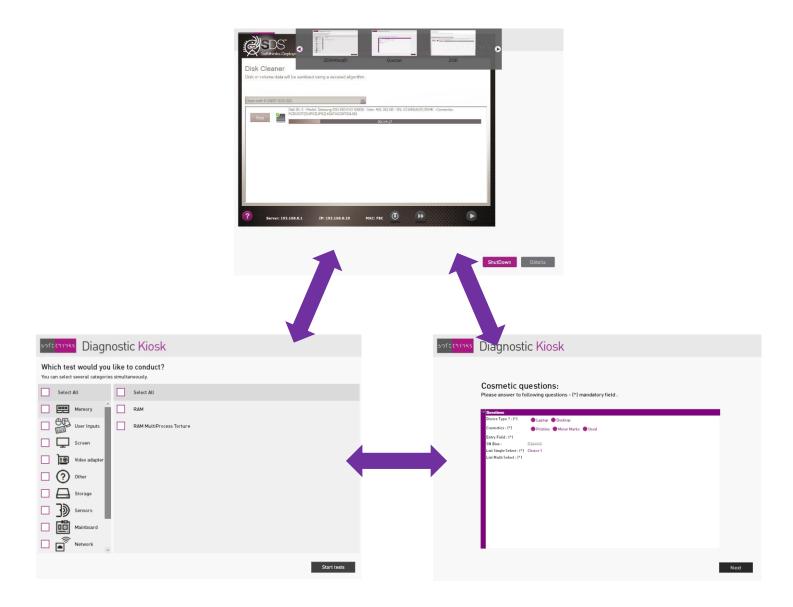
## Multitasking during wipe operations (SDS 20.0)

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Wipe process can take time and so it can be useful to perform other actions during this operation, as running hardware diagnostics and/or answering some cosmetic or other customized questions on device.

SDS 20.0 added the possibility to run several operations in parallel and to switch between them, allowing you to save time.

You can just press ALT+M to switch between the operations or press SHIFT+ALT+M to display the modules running in the navigation panel which appears on the top to select specifically the operation you want to see:



For the moment, only those operations can run simultaneously but let us know if you would like to run other ones in parallel.



### Hexadecimal viewer

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Optionally, a hexadecimal viewer allows you to see the contents of the drive:

Disk sector viewer Please select a disk and a sector	
Disk ID: 0 - Model: SEGLE0600GBFC15K - Size: 555.627 GB - SN: 6SL80TTR0000B4290P64 Disk ID: 0 - Model: SEGLE0600GBFC15K - Size: 555.627 GB - SN: 6SL80TTR0000B4290P64 Disk ID: 1 - Model: HVIPC0600GBFC15K - Size: 556.292 GB - SN: CZX1ZVJN Disk ID: 2 - Model: HRALP0200GBFC5SD - Size: 189.222 GB - SN: XQVIXAPB	Vendor:
Disk [D: 3         Model: LOGICAL VOLUME - Size: 279.366 GB - SN: 0014380227CCF10           00000050 00 00 00 00 00 00 00 00 00 00 0	Model: SEGLE0600GBFC15K Serial number: 6SL80TTR0000B4290P64 Firmware rev: 3P01 Bus type: FIBER Commercial size: 596 GB Real size: 555.627 GB Sector count 1147307694 Byte per sector: 520

## Wipe Report

You can generate a wipe report in XLS and PDF formats as shown below:

<TODO: Update with latest template and tests results and cosmetic questions>

SO	oftthink	(5)				
		S	DS Repo	ort		
REPC	ORT INFORMATIO	N				
	cian ID: ſ TAG:			Date: SW Versior		018
SYST	EM INFORMATIO	N				
Systen Systen CPU M	n Serial Number: n Make: n Model: lodel: ry Total:	FQXW762 Dell Inc. Inspiron 3847 (0 Intel(R) Core(TM 8GB		2 3.70GHz		
		BANK 0(4096/DI	DR3/1600)			
Netwo	Adapter: rk Adapter (1): ′D/Blu-ray Device (1):		tion Core Proces altek Ethernet Co	ontroller, V=9.		phics Controller
SDS	PROCESS RESUL	.TS				
Applied	are test result: d image: l process result:	Not available None Success				
FIXEI	D DRIVE(S) ERAS		ATION			
Entry	Drive Model	Drive Serial Number	Size (GB)	Erase Method	Result	Completion
0	CT1000BX100SSD1	1517F0064970	931.513 Go		Failed	00:00:16



1	TOSHIBA DT01ACA100	75JE6SYMS	931.513 Go	Failed	00:00:00
u can tota	ally customize the templa	ite by editing the	e file in SDKDB\Selector\F	Reports\WipeRepo	rt\template.xls:
x					
template.x	ls				
nd the PDF	and XLS wipe reports ar	e generated SDI	<pre><db\selector\reports\wi< pre=""></db\selector\reports\wi<></pre>	peReport\Output:	
x	9				

_FQXW762_3293.xls _FQXW762_3293.xls.p df

In order to generate wipe reports, you need to have enabled this feature during the installation in the SDS Configuration Assistant by checking the "Enable?" check box ¹ in the bottom left and select "WipeReport" in the combo box ¹ on its right:

Softthinks Deploy	sったたりゴンズs ment Suite [™]
	SDS Configuration Assistant
<ul> <li>Welcome</li> <li>License</li> <li>Database</li> <li>SQL</li> <li>Settings</li> <li>End</li> </ul>	SQL Settings To save in SQL database, hardware and deployment information. Name or IP adress of SQL Server 195.154.172.237 Username Password
	Database Name Enable report Enable? Skip Apply



If you didn't enable it during the configuration, you can do it at any moment from the SoftThinks Selector Service user interface:

1. Double-click on the SoftThinks Selector Service *signal is the system tray of the Windows taskbar, or click on it and select "Selector Settings" item in the pop-up menu displayed:* 

<b>Ø</b>	SoftThinks Selector Service 📃 🗕 🗖					
Please adjust selector servic	e settings according your desire					
Server name	195.154.172.237					
Login	utilisateur1					
Password		1				
Database name	SQLFORBLEU					
Encryption	SSL 3					
Generate report	✓ (Yes)	1				
Report type	🔁 WipeReport 🗸 🗸 🗸					
Database		3				
Selector service reachable	Test SQL connection Cancel OK	]				
	13:37 🐨 🚱 🕼 11/04/2018	3				

If the *solution* is not present, double-click on SelectorSRVG.exe executable located in D:\remoteInstall\SDKDB\selector and wait for the icon to appear before clicking on it.

- 2. Check the option "Generate report" 2
- 3. Select "WipeReport" as Report type 3





SDS can automatically print a label to a printer plugged and configured on SDS server at the end of a process. The graphical layout (HTML template) and contents are totally customizable.

Here below an example of a label after a trade-in flow (Autit + Hardware diagnostics + Wipe):

softthinks Dell Inc. Desktop - Inspiron 3847 (0622)	Testing date: 28/01/2020 14:06:40
PSU + Battery supplied and power up from either? : Is there a keyboard? : Yes Is there a mouse? : No Cosmetics : Pristine	Not a laptop
Wipe: DONE	
Failed tests:	
S/N: FQXW762	Grade:
	A

Instead of printing the label we can just generate the PDF file as below on the server.



# Diagnosing a device

SDS can diagnose hardware issues on any device which can boot through PXE or from a bootable USB key, as Windows, macOS, Linux desktop PCs, laptops or tablets.

#### Tests selection

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You can run up to 56 tests grouped by categories. When possible, the tests are fully automated and can be run in parallel, else the 🔁 pictogram indicates you those who require manual intervention:

soft thinks Hardware Diagnostics						
Select the test(s) you like to conduct. You can select several categories simultaneously.						
Select All Select All						
Audio Audio Internal Speaker						
Battery Internal Microphone						
Memory Output Jack						
User Inputs Input Jack						
Combo Jack						
GPU GPU						
Other						
Storage						
Sensors						
Start test(s)						

This list is totally customizable (you can decide to remove some of them). You can also edit or totally redefine the categories, as well as the labels and bitmaps.

You have also the possibility to dynamically hide tests which are not relevant, either because we automatically detect that the element to test is not present (device without optical drive reader, screen without touch capability) or based on responses made in audit module (for example the keyboard was not supplied with a desktop PC and you don't want to test the operator's keyboard he plugged to use our solution).

You can bypass this selection screen and launch direction different tests profiles that you can customize depending on your needs (quick tests, full tests, quality control tests, stress tests...).

#### List of available tests

		Test Environment			Automated	Test
	Test	Customer OS   Audit mode	Windows To Go	WinPE	Test ⁽⁸⁾	Duration
	General purpose instructions Test	$\checkmark$	$\checkmark$	~	✓	1min (customizable)
	Floating Point Unit Instructions Test	✓	$\checkmark$	~	~	1min (customizable)
	Prime Number Test	$\checkmark$	$\checkmark$	~	~	1min (customizable)
	MMX Test	✓	$\checkmark$	~	~	1min (customizable)
	SSE Test	$\checkmark$	$\checkmark$	✓	~	1min (customizable)
	SSE2 Test	✓	$\checkmark$	~	~	1min (customizable)
CPU	SSE3 Test	$\checkmark$	$\checkmark$	$\checkmark$	~	1min (customizable)
IJ	AES Test	✓	$\checkmark$	~	~	1min (customizable)
	Maximum heat Test	$\checkmark$	$\checkmark$	~	~	10min
	CPU Voltage Monitoring	$\checkmark$	$\checkmark$	$\checkmark$	~	Os (continuous monitoring) ⁽⁵⁾
	CPU Temperatures Monitoring	$\checkmark$	$\checkmark$	$\checkmark$	~	Os (continuous monitoring) ⁽⁵⁾
	CPU Powers Monitoring	$\checkmark$	$\checkmark$	$\checkmark$	~	Os (continuous monitoring) ⁽⁵⁾
	CPU Clocks Monitoring	$\checkmark$	$\checkmark$	$\checkmark$	~	Os (continuous monitoring) ⁽⁵⁾
	CPU Utilization Monitoring	✓	$\checkmark$	~	~	Os (continuous monitoring) ⁽⁵⁾
	Mainboard Voltages	$\checkmark$	$\checkmark$	<b>v</b> (9)	~	Os (continuous monitoring) ⁽⁵⁾
MAINBOARD	Mainboard Temperatures	$\checkmark$	$\checkmark$	<b>v</b> (9)	~	Os (continuous monitoring) ⁽⁵⁾
MAINE	Mainboard Fans	$\checkmark$	$\checkmark$	<b>v</b> (9)	✓	Os (continuous monitoring) ⁽⁵⁾
	USB ports	$\checkmark$	$\checkmark$	$\checkmark$		time to plug the USB key to each port and detect it
ME	Standard Test	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	1min (customizable)

	Multi-Process Torture Test	$\checkmark$	~	~	~	1min (customizable)
	GPU Clock Monitoring	$\checkmark$	~	~	~	Os (continuous monitoring) ⁽⁵⁾
	GPU Voltage Monitoring	$\checkmark$	✓	<b>V</b> (9)	~	Os (continuous monitoring) ⁽⁵⁾
	GPU Temperature Monitoring	✓	✓	<b>√</b> (9)	✓	Os (continuous monitoring) ⁽⁵⁾
ARD	2D Local Video memory Test	✓	✓	×	✓	1min
GRAPHIC CARD	2D all available memory Test	$\checkmark$	✓	×	✓	1min
GRA	2D Lines and bitmaps test	$\checkmark$	✓	✓	✓	1min
	2D EMC scrolling characters test	$\checkmark$	✓	✓	✓	1min
	2D EMC reference test pattern test	$\checkmark$	$\checkmark$	×	✓	1min
	3D Test	$\checkmark$	√	✓ (3)	$\checkmark$	1min
	HDD SMART Status	$\checkmark$	✓	~	~	0 to 5s ⁽⁴⁾
	HDD Short SMART Test	$\checkmark$	~	~	~	Some minutes ⁽⁶⁾
STORAGE	HDD Long SMART Test	$\checkmark$	✓	~	~	10 min to several hours ⁽⁶⁾
STOF	HDD Random Read Test	$\checkmark$	√	~	$\checkmark$	some seconds to several minutes ^{(6) (7)}
	HDD Linear Read Test	$\checkmark$	$\checkmark$	✓	~	some seconds to several minutes ^{(6) (7)}
	Optical Drive Read Test	$\checkmark$	✓	~		time to insert the media and get it readable
X	Wired (LAN)	$\checkmark$	√	~		<5s
NETWORK	Wi-Fi (WAN)	$\checkmark$	✓	~		<5s
Z	Bluetooth	soon	soon	soon		
AUDI	Internal speaker	$\checkmark$	~	~		~1s delay to hear sound played and validate test ⁽¹⁾

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NOLOGIES



	Internal microphone	$\checkmark$	✓	✓ If driver present		$\sim 6s$ delay to record & play sound ⁽¹⁾⁽²⁾
	Output Jack	$\checkmark$	√	√		~1s once device plugged ⁽¹⁾
	Input jack	$\checkmark$	✓	✓ If driver present		$\sim 6s$ once device plugged ^{(1) (2)}
	Combo Jack	✓	✓	✓ If driver present		$\sim 6s$ once device plugged ^{(1) (2)}
7	Dead pixel	$\checkmark$	✓	✓		3s delay customizable
SCREEN	Touchscreen	$\checkmark$	✓	✓		<2s
	Display ports ⁽¹⁰⁾	$\checkmark$	✓	✓		delay to plug a monitor to each port and detect it
	Keyboard	~	$\checkmark$	$\checkmark$		~5s depending on keyboard layout
USER INPUTS	Keyboard Status LED	$\checkmark$	$\checkmark$	$\checkmark$		<5s
USER II	Mouse	$\checkmark$	~	~		<5s
	Touchpad	$\checkmark$	$\checkmark$	$\checkmark$		<5s
	Battery Wear Level	$\checkmark$	~	~	~	<10s
BATTERY	Battery Charging Test	$\checkmark$	$\checkmark$	$\checkmark$		<15s
	Battery Drain Test	$\checkmark$	$\checkmark$	~		depends on battery charge
ORS	Accelerometer	$\checkmark$	$\checkmark$	Under investigation		<2s
SENSORS	Lid Sensor	$\checkmark$	$\checkmark$	$\checkmark$		~5s (customizable)
OTHER	Card Reader	✓	~	~		time to insert the media and get it readable
OTH	Webcam	✓	~	✓ If driver present		<10s

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O L O G L E S

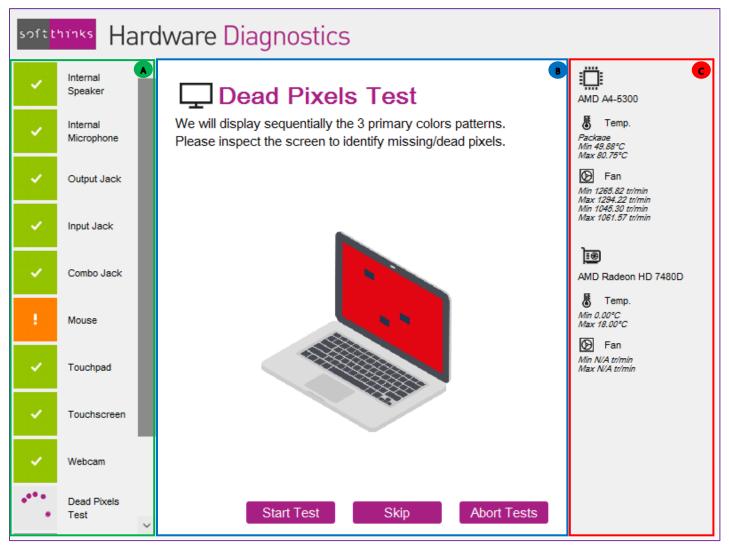


- ⁽¹⁾ A question is asked once the playback ends but you have the possibility to validate the test as soon as the operator hears the sound. In the next release we will have the option to play instead a random number of bips and ask the operator how many he heard for better confirmation the test was successful.
- ⁽²⁾ We currently record during 5s but we will make this delay customizable in the next release.
- ⁽³⁾ This test is a functional test and cannot be used for benchmark purpose in WinPE environment since it might not include optimized manufacturer drivers but default graphic drivers.
- ⁽⁴⁾ We can automatically query SMART status, or display all SMART information and let the operator decide if those are acceptable or not.
- ⁽⁵⁾ Those values are monitored in real time during the whole test session and minimum, average and maximum values are saved. You can use them in conjunction with a stress test like the maximum heat test
- ⁽⁶⁾ The test duration differs depending if you test a SSD or a mechanical HDD, and depends on the disk size.
- ⁽⁷⁾ The number of passes, the number of blocks and the size of the blocks are customizable
- ⁽⁸⁾ Automatic tests are executed in parallel when possible (2 tests accessing the same device cannot be run simultaneously) either at the beginning or at the end of the test session
- ⁽⁹⁾ Monitoring depends on driver available in WinPE
- (10) HDMI, DVI, DP, VGA

## Tests execution

When the tests are launched, you will see the interface below with the 3 areas:

- the left panel 
   is a scrollable list of the tests to execute with their current status in front of each one (pending/running/passed/failed/skipped)
- the middle area ^B contains the instructions for the manual test which is currently running and the action buttons
- the right panel c is dedicated to real time monitoring: temperature, voltage, fan speed of CPU, GPU, mainboard, HDD/SSD





#### **Automatic Tests Execution**

Automatic tests are run simultaneously as far as far possible in order to decrease the diagnostic session delay. As a consequence, they will not have a common UI, or even no UI at all while manual tests are running.

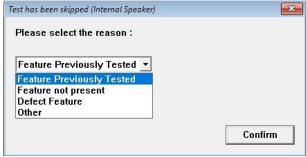
Anyway, you can follow their progression through the animation in front of each one on the left panel.

#### Manual Test Execution

For each manual test, you will be guided through detailed step by step instructions and explicit animations.

In order to decrease the test duration, buttons and keystrokes are available to set a test as succeeded / failed, skip it, abort it or bypass timeouts when applicable. For example, for the dead pixel test, you will be able to stop and failed the dead pixel test as soon as you see one, display the next pattern by pressing a key without waiting for the customizable delay. For the other full screen test which is the touchscreen one, if the touchscreen is not responding the user will also be able to fail it without waiting for the customizable timeout delay.

Optionally, you can ask the operator to indicate the reason why he skips a test for trackability purpose. If so, he will have to choose one of the reasons you will have predefined and this reason will be saved in the logs and in the database so that you can show it on reports and wipe certificates:



# Retrieving delete files

SDS includes a module allowing you to retrieve files which have been deleted on Windows internal disk, or stored on an external media (UBS flash drive, USB disk, any memory card which can be plugged through an USB adapter) which has been damaged or corrupted.

Our solution will scan the media and provide a list of the files which can be recovered. The target of the files recovered should be another media in order to maximize the amount of data which can be recovered.

## softthinks...

# Quality Check with Windows Test Manager

Windows Test Manager will allow you to conduct tests on the computers. It replaces devlog.exe and dev.ini You can check if the devices drivers are installed and signed. Test your network, multimedia... and you can also add custom tests.

WinTEST can be automated and perform the tests automatically if they don't require user interaction.

#### Windows check

This window will check your device manager if all the devices drivers are signed and if there are no error:



In case you have an error, the device manager will open:

- To check if the drivers are signed. To get more details click on "Display logs"
- To check if there are no error in the event viewer. To get more details click on "Display the event viewer"



## Multimedia

In this window, you will check the multimedia test.

- o Sound : wave, midi, mp3
- Mic : record and listen to it
- Webcam: record and watch it.



In manual mode, you need to test EVERYTHING to go to the next step



## Network Settings

In this window, you will check the networks.

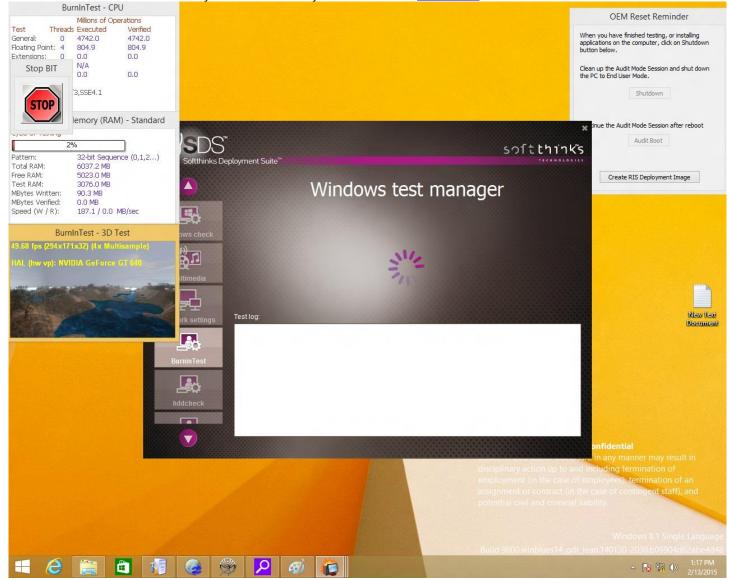
- The available wireless networks
- All other networks

You can also click on « Edit » if you need to enter the security key



## BurnInTest (as OEM tests for example)

#### You can launch BurnInTest directly and automatically from WTM. See BurnInTest for more details.



At the end of the test, the process generates a log file.



#### Reports

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Softthinks De	・ sっf <b>tthinks</b> sployment Suite [™]
network settings	Windows test manager
BurninTest	Comment
hddcheck	Test result.
Keyboard Test	Device Manager: Found device(s) with error File Signature: OK Event Log: OK Multimedia: AUDIO test Passed MICRO test: No input or output device found!
custom report	WEBCAM test: No webcam detected! Network: LAN test: The LAN tests have not been run! WiFi test: The WiFi tests have not been run! Custom test:
report	burnintest Passed hddcheck Passed

In this window you have to name the report that was created. You can also add a comment.

If you click on "finish", a report (WindowsTestManager log.xml) will be created and sent to the server.

## In auto mode all windows are switched automatically and this windows is automaticall y filled and logs are uploaded on server.

Please consult <u>How to manually edit WTM configuration files</u> in order to customize your tests manually.

## Auditing hardware

SDS 18.0 introduced a new module for capturing audit question answers about the hardware.

This is a dynamic setup where there would be series of questions presented to the user with potential additional questions that would be presented based on an answer to one of the first questions.

Ex: First question would ask "Any Cosmetic Damage", if the answer is yes then additional question would be display to ask about the damage. If no, then the additional question would not be displayed. the questions to display would be controlled by the config file.

Prior to use this module, you will have to define the questions and expected results (text field, yes/no radio button...). Please refer to <u>How to setup the auditing module</u>.

soft <mark>thinks</mark>	Diagnost	ic Kiosk
	Cosmetic qu Please answer to fo	Jestions: Ilowing questions - (*) mandatory field .
	♥Questions	
	Device Type ? : (*)	🛇 Laptop 🔎 Desktop
	Battery Supplied ?	🗣 Yes 🕐 No
	PSU Supplied ?	🗣 Yes 🕐 No
	Cosm etics : (*)	🔴 Pristine 🔴 Minor Marks 🔴 Used
	Entry Field : (*)	
	SN Bios :	D246662
	List Single Select : (*)	Choice 1
	List Multi Select : (*)	×
		Choice 1 Choice 2
		Choice 5
		Next

The questions and responses are saved in the Database and can be used in reports, labels and also to generate a grade / trade-in code based on the rules you will define. They can also be linked to some hardware tests to discard some which would not be relevant (for example if it's a desktop PC without keyboard supplied, we should not test the keyboard that the operator will plug to the PC).

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# Report/Certificate/Export/Label generation

At the end of any process, you can systematically generate a report or certificate and/or a label which can be automatically printed if you need. We also export database contents for ERP integration purpose.

•••

The reports/certificates can also be generated at any time later through the Dashboard (please refer to the Dashboard User Guide).

## License reactivation

Once your license has expired, you can reactivate it by following the instructions below:

- 4. Click on the *system* tray of the Windows taskbar. If this icon is not present, double-click on SelectorSRVG.exe executable located in D:\remoteInstall\SDKDB\selector and wait for the icon to appear before clicking on it.
- 5. In the contextual menu appearing, click on "Upgrade license":

Selector settings
Start Selector
Stop Selector
Dump database objects
Upgrade License
About SoftThinks Selector
Exit

6. Send an email to your account manager with the SDKLicense.slf file located in the 'License path'¹ indicated in the dialog screen below, as well as the code generated in the 'Hardware ID' field²:

License upgrade X
1) License path D:\RemoteInstall\SDKDB\selector\SDKLicense.slf
2) Send this 'Hardware ID' and the previous license file
9BD4F02AC546B49E14F82A 746BB65C8CCC9AF94389BA D0D768 CF11D92A7CA75EB3D54F 0B2F7976C068 352F9A4C1889FD7C256CD 9584D5B501A05
3) Fill the 'Activation code' to upgrade your license
<ul> <li>Cancel</li> <li>✓</li> <li>OK</li> </ul>

7. Enter the code which will be sent to you in the 'Activation code' field  3 .



# Troubleshoot guide

Symptom	Potential root cause	Solution
Network error during the deployment to a device	Network driver missing in the boot image	<ol> <li>Ensure that the driver for the network card you are using is in SDS Database. If not, please add it (See <u>Adding a driver ("Add driver"</u> <u>operation</u>)).</li> <li>Then, please inject it in your boot image (See <u>Injecting a driver</u> <u>("Inject Driver(s)" operation</u>))</li> </ol>
Error connecting to WDS server share while booting on a device	Server credentials might have changed	<ol> <li>Review and update if needed the server credentials as described in <u>Configure the Deployment launcher</u></li> </ol>
Nomad Disk not recognized		<ol> <li>Open the SDS Console</li> <li>Click on the « Utilities » tab</li> <li>Click on « USB stick report »</li> <li>Scan the disks</li> </ol>

# Appendix

#### How to configure Windows Server

The screenshots below might change depending on the Windows Server version used.

#### **Active Directory domain services**

1. Open the Server Manager Dashboard, install « AD DS Services » or « Active Directory domain services » by clicking on « Add Roles and Features » or through the menu « Manage » and then « Add Roles »:

à	Add Roles and Features Wizard	_ <b>_</b> ×
Select server ro Before You Begin Installation Type	Select one or more roles to install on the selected server.	DESTINATION SERVER WIN-839C6TOUC48 Description
Server Selection Server Roles	Active Directory Certificate Services	Active Directory Domain Services (AD DS) stores information about
Features Confirmation Results	Active Directory Domain Services         Active Directory Federation Services         Active Directory Lightweight Directory Services         Active Directory Rights Management Services         Application Server         DHCP Server         Fax Server         IFile And Storage Services (Installed)         Hyper-V         Network Policy and Access Services	objects on the network and makes this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.
	Print and Document Services     Remote Access     Remote Desktop Services <ul> <li>Previous</li> <li>Next</li> </ul>	> Install Cancel

2. Click on Next until reaching the Confirmation screen and put a Check in the box which says "Restart the Destination Server Automatically if required.":

	Add Roles and Features Wizard	×
Confirm install Before You Begin Installation Type	ation selections Di To install the following roles, role services, or features on selected server, click Install.	ESTINATION SERVER WIN-839C6TOUC48
Server Selection Server Roles Features	Optional features (such as administration tools) might be displayed on this page beca been selected automatically. If you do not want to install these optional features, click their check boxes.	use they have
AD DS	Active Directory Domain Services	
Confirmation	Group Policy Management Remote Server Administration Tools	
Results	Remote Server Administration Tools Role Administration Tools AD DS and AD LDS Tools Active Directory module for Windows PowerShell AD DS Tools Active Directory Administrative Center AD DS Snap-Ins and Command-Line Tools	
	Export configuration settings Specify an alternate source path	
	< <u>P</u> revious <u>N</u> ext > <u>I</u> nstall	Cancel

3. Select Yes on the confirmation box, then click Install on the main screen. Click close when it has completed installing.

- softthinks...
- 4. In Roles and Server Groups on the Server Manager Dashboard Click on the AD/DS box and Click *More* on the yellow warning bar at the top:

<b>A</b>	Server Manager	C j
AD DS	• 🗭   🍢 Manage <u>T</u> ools <u>V</u> iew <u>H</u> elp	
<ul> <li>Dashboard</li> <li>Local Server</li> <li>All Servers</li> <li>AD DS</li> <li>File and Storage Services </li> </ul>	SERVERS       All servers   1 total       TASKS ▼         Configuration required for Active Directory Domain Services at WI More       ×         Filter	> 111
	Image: Constraint of the second s	~

5. On the top bar select *Promote this server to a domain...*(controller):

			All Servers Task Details	_	
All Se All Tasks	ervers Task Details	and I	Notifications		
Filter	م	(1)	• (A) •		$\odot$
Status	Task Name	Stage	Message	Action	Notifica
Δ	Post-deployment Configuration	Not Sta	Configuration required for Active Directory Do	Promote this server to a domain	1
۲.			ш		>
< Status	Notification		Ш	Time Stamp	>
	Notification Additional steps are required to r	nake this r		Time Stamp 7/16/2014 9:14:39	
Status		nake this r			



6. In Deployment Configuration, select "Add a new forest" and put SDS.com in the Root domain name box:

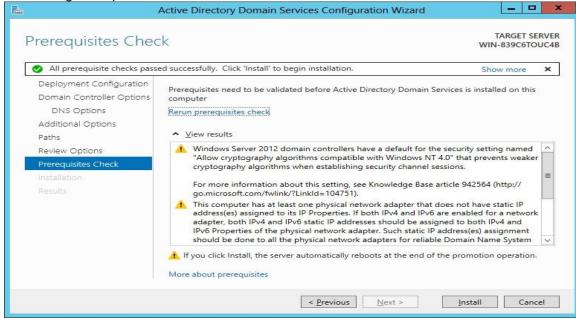
<b>b</b>	Active Directory Domain S	ervices Configuration Wizard	_ 🗆 X
Deployment Con Deployment Configuration	2		TARGET SERVER WIN-839C6TOUC4B
Domain Controller Options Additional Options Paths	Select the deployment operat Add a <u>d</u> omain controller to Add a new domain to an <u>e</u> Add a new forest	o an existing domain	
Review Options Prerequisites Check	<ul> <li>Add a new <u>f</u>orest</li> <li>Specify the domain informatic</li> <li>Root domain name:</li> </ul>	on for this operation	_
Installation Results	Test computations	353com	
	More about deployment confi	igurations	
		< Previous Next >	Install Cancel

7. In Domain Controller Options, type in the password Softthinks1 and then confirm it:

6	Active Directory Domain Se	rvices Configuration Wizard	_ <b>_</b> ×
Domain Controlle	er Options		TARGET SERVER WIN-839C6TOUC4B
Deployment Configuration Domain Controller Options DNS Options Additional Options Paths Review Options Prerequisites Check Installation Results	Select functional level of the ne Forest functional level: Domain functional level: Specify domain controller capa Domain Name System (DNS Global Catalog (GC) Read only domain controlle Type the Directory Services Res Password: Confirm password:	Windows Server 2012 Windows Server 2012 bilities 5) server	<b>▼</b>
	More about domain controller	options	
		< Previous Next >	Install Cancel



#### 8. Click Next until reaching Prerequisites Check screen:



9. If all Prerequisite checks passed successfully then click Install. Note: You must have the NIC plugged into a switch or the TCP/IP check will fail.

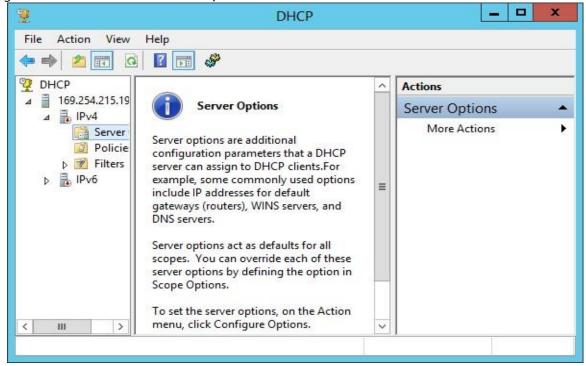


#### **DHCP Server**

- 1. Ensure that the Ethernet connection is working
- 2. Add the « DHCP Server » role (See step 1 for Active Directory Domain Services configuration):

	Add Roles and realures wizard	
Select server ro		DESTINATION SERVER WIN-839C6TOUC48.SDS.com
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select one or more roles to install on the selected server. Roles Active Directory Certificate Services Active Directory Domain Services (Installed) Active Directory Federation Services Active Directory Lightweight Directory Services Detries Directory Services	Description Dynamic Host Configuration Protocol (DHCP) Server enables you to centrally configure, manage, and provide temporary IP addresses and related information for client computers.
	<ul> <li>Active Directory Rights Management Services</li> <li>Application Server</li> <li>DHCP Server</li> <li>DNCP Server</li> <li>DNS Server (Installed)</li> <li>Fax Server</li> <li>✓ File And Storage Services (Installed)</li> <li>Hyper-V</li> <li>Network Policy and Access Services</li> <li>Print and Document Services</li> </ul>	
	Remote Access     Remote Desktop Services <ul> <li>Previous</li> <li>Nex</li> </ul>	t > Install Cancel

- 3. Follow the configuration wizard (let default values) and click on Install in the last screen after having checked the option "Restart the Destination Server Automatically if required."
- 4. From the Server Manager Dashboard Select Tools then *DHCP*, expand out the arrows for 169.254.xxx.xxx and then for IPv4. Right click on IPv4 and select *New Scope*:



5. Type SDS in as the Name and click Next.

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	New Scope Wizard
Scope Name You have to p a description.	rovide an identifying scope name. You also have the option of providing
	and description for this scope. This information helps you quickly identify s is to be used on your network.
Name:	SDS
Description:	
	< <u>B</u> ack <u>N</u> ext > Cancel

6. Type in Start IP address 192.168.1.10 and in End IP address 192.168.1.100:

Conliguration settings	for DHCP Server	
Enter the range of ad	ldresses that the scope distributes.	
<u>Start IP address:</u>	192.168.1.10	
End IP address:	192.168.1.100	
Length:	24 <u>+</u> 255 . 255 . 255 . 0	



7. Click Next and Next Again and then set the Lease Duration to 4 hours

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New Scope Wizard
Lease Duration The lease duration specifies how long a client can use an IP address from this scope.
Lease durations should typically be equal to the average time the computer is connected to the same physical network. For mobile networks that consist mainly of portable computers or dial-up clients, shorter lease durations can be useful. Likewise, for a stable network that consists mainly of desktop computers at fixed locations, longer lease durations are more appropriate. Set the duration for scope leases when distributed by this server. Limited to: Days: Hours: Minutes: O
< <u>B</u> ack <u>N</u> ext > Cancel

8. Click Next, Next, Next, Next, Next, Next, and then Finish. Close out of the DHCP Window.

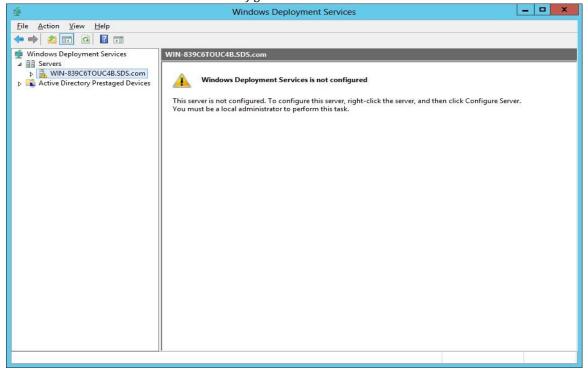


#### Windows Deployment Services

1. Add the role « Windows Deployment Services » (See step 1 for Active Directory Domain services) :

<b>a</b>	Add Roles and Features Wizard	_ <b>_</b> X
Select server ro Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select one or more roles to install on the selected server.         Roles         Active Directory Rights Management Services         Application Server         DHCP Server (Installed)         Fax Server         File And Storage Services (Installed)         Hyper-V         Network Policy and Access Services         Print and Document Services         Remote Access         Remote Desktop Services         Volume Activation Services         Web Server (IS)	DESTINATION SERVER WIN-839C&TOUCAB.SDS.com Description Windows Deployment Services provides a simplified, secure means of rapidly and remotely deploying Windows operating systems to computers over the network.
	Windows Server Update Services	
	< <u>P</u> revious <u>N</u> ex	t > Install Cancel

- 2. Follow the configuration wizard (let default values) and click on Install in the last screen after having checked the option "Restart the Destination Server Automatically if required."
- 3. From the Server Manager Dashboard Select Tools then *Windows Deployment Services*. Expand the arrow by Servers, right click on the server listed and then select *Configure Server*:





4. In the Path box change the C:\RemoteInstall to D:\Remote Install:

	Windows Deployment	t Services Configuration Wizard	
Remote	Installation Folder Location		
and t large	remote installation folder will contain boot i he Windows Deployment Services manag enough to hold all of the images that you S partition and should not be the system pa	gement tools. Choose a partition that is will have. This partition must be an	
Ente	r the path to the remote installation folder.		
<u>P</u> ath	18	10 C	
DEVE	RemoteInstall	Browse	
		< Back Next >	Cancel

5. On next step, check the 2 options:

	Windows Deploy	ment Services Co	nfiguration	Wizard	)
Ргоху DHCP	Server				
the following	Host Configuration Protocol ng check boxes and use DHO DHCPv6 scopes.				
	icrosoft DHCP server is runnir configure DHCP option 60 and				
	ows Deployment Services Co nning on the server. Please se			СР	
Do not	listen on DHCP and DHCPv	6 <u>p</u> orts			
Configu	ure DHCP options for Proxy D	HCP			
		1	< <u>B</u> ack	<u>N</u> ext >	Cancel
			< <u>B</u> ack	<u>N</u> ext >	Canc

6. Select Respond to all client computers (known and unknown):

4	Windows Deployment Services Configuration Wizard
P	XE Server Initial Settings
	You can use these settings to define which client computers this server will respond to. Known clients are the clients that have been prestaged. When the physical computer performs a PXE boot, the operating system will be installed based on the settings that you have defined.
	Select one of the following options: <ul> <li>Do not respond to any client computers</li> <li>Respond only to known client computers</li> </ul> <li>Respond to all client computers (known and unknown) <ul> <li>Reguire administrator approval for unknown computers. When you select this option, you must approve the computers using the Pending Devices node in the snap-in. Approved computers will be added to the list of prestaged clients.</li> </ul> To configure this server, click Next.</li>
	< <u>B</u> ack <u>N</u> ext > Cancel

- 7. Close out of the Windows Deployment Services Window when it completes.
- 8. Ensure that the remote installation folder set in step 4 is shared as « reminst » with Full Control to « Everyone »
- 9. Verify that PXE is working with a test PC. If so, execute SDS installer (launch setup.exe in installer folder).



# How to configure DHCP on a non-server edition of Windows

- 1. Download DHCP Server from http://www.dhcpserver.de/cms/
- 2. Copy the folder dhcpsrv2.5.2 to remoteinstall folder
- 3. Launch dhcpwiz.exe
- 4. Click on "Next >" button
- 5. Select your LAN card, and click on "Next >" button:

Name	IP-Address	DHCP	
Connexion réseau Bluetooth W-Fi Connexion au réseau local* 1 Ethemet	0.0.0 0.0.0 0.0.0 0.0.0 0.0.0	Enabled Enabled Enabled Enabled	
			Refresh

 $\sim$ 

6. In the "Supported Protocols" screen, don't select anything and click on "Next >" button:

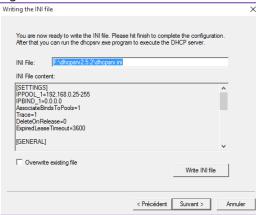
upported Protocols	×
This DHCP Server supports more than just the DHCP protocol. Please select which other protocols you want to enable:	
File Server Protocols	
HTTP (Web Server)	
TFTP (Trivial File Transfer Protocol used for remote boot)	
Root path:	
TFTP has write permission	
∼ Name Service Protocols	
DNS (Dynamic Name Service Protocol)	
Forwarding address: 0 . 0 . 0 . 0	
All DNS requests that can not be resolved locally are forwarded to this DNS server.	
< Précédent Suivant > Annu	ıler

7. Select you IP range and click on "Next" button:

onfiguring DHCP for	Interface	×
-Network Interface	e Definition	
Name:	Connexion au réseau local* 1	
IP Address:	0.0.0.0	
Configuration		1
IP-Pool:	192 . 168 . 0 . 25 - 255	
Lease Time:	1 Day	
Delete expired	d leases in intervals of 3600 seconds	
✓ Trace		
	DHCP Options Advanced	
	< Précédent Suivant > Annule	r



8. Check the option "Overwrite existing file", click on "Write INI file" and then click on "Next >" button:



9. Check the option "Run DHCP server immediately", click on "Admin..." button and then on "Finish" button:

Service -		Firewall exceptions
	Install	Configure
	Remove	Remove
	Start	
	Stop	Firewall enabled
Status:	Not installed	Status: Not configured

10. The DHCP service is now running:





# How to customize the welcome menu

# Script.xml

Initially we need to declare the module SDSWelcome in the « Components list »:

```
<Components_List>
<!-- Modules loaded at startup...->
<component Name="Welcome" Path="MODULES\SDSwelcome.dll" Id="101">
</component>
```

```
Then, we have to call the module:

<Item Name="Example" ... >

<!-- SDSWelcome -->

<Module Id="101" ConfigFile="Xxxx.ini" Param1="0" Param2="0" FullScrn="0">

</Module>
```

There is no parameter for SDSWelcome module but we need to declare it for the module call.

Since SDS 18.0, script variables are now fully using 'unsigned long' range from 0 to 0xFFFFFFF.

### SDSWelcome.ini

In the section « General » you define the main settings:

Mode is the user interface you want (radio buttons, check box, combo box)

Nb_Btn_Top = Number of buttons on top of the screen. Nb_Btn_Down = Number of buttons in the main part.

Btn_Top_1 = first button on top. We can define the buttons type (on top) we want, text field (Edit control -> 0) or combo box (Combo control -> 1).

In this example, we define a specific rule.

The « button » is **a text field** that accepts only numeric characters and having a max length of 9. To validate you need **9 characters**. The digit is **divided in 2** parts. The first part is only one **numeric character and has to be 0**. The second part contains **8 numeric characters** (no other rules).

Type_Btn=0 ; 0 -> Edit control ; 1 -> Combo control	-> text field
Btn_Text=IDS_TEXT_1	
Nb_Part=2	-> divided in 2 parts
Nb_Digit_Part_1=1 ; x > 0 Length part = x; x = -1 No limit	-> The digit part 1 length is 1
Type_Digit_Part_1=0 0 -> the	e first character has to be numeric and equal to 0



; 0 -> Numeric ; 1 -> Alpha ; 2 -> AlphaNumeric ; | char (digit must be char)

Nb_Digit_Part_2=8 Type_Digit_Part_2=0

-> 8 numeric characters

 $Min_Length=9$ ; x > 0 string length must be sup or equal to x; x = -1 no min

 $Max_Length=9$ ->the string length is equal to 9; x > 0 string length must be inf or equal to x; x = -1 no max

#### Example

Softthinks Deployment Suite"		รวโะเทาเรื่อ
Geek Squad	Code Ordinateur L016SA	
Options SmartRepair Création d'une migration et/ou d'une sa Création d'une migration et/ou d'une sa Redescente d'une migration / Backup (L Redescente d'une migration / Backup (F	uvegarde de données (Full) ite)	
Test HDD - court Test HDD - long Antivirus Shredder Shredder USB Déscente image Déscente image VD Création image		
Création image VD	000 Mbps - Realtek PCIe GBE Fami	

### Please note that ";" in the beginning of the line means that you are commenting.

In this example, we have the following settings:

[General] ; 0 -> radio button ; 1 -> CheckBox ; 2 -> Button Mode=2 -> The main menu will be a buttons menu

Nb_CustomAction=0

; 0 -> No logo ; 1 -> show logo ; logo file has to be named logo.png and put in Windows\System32 Logo=1

; max 4 Nb_Btn_Top=2 ; 2 buttons

; mode = 0 -> 5 max | mode = 1 -> 12 max | mode = 2 -> 10 max Nb_Btn_Down=4



;HardwareCheck=x -> 0 no check, 1 check and display dialog, 2 check and exit ;No more used. Kept for compatibility HardwareCheck=0

**DODCheck=0** ; To know if wipe ran correctly. In case of refurbishing it can be useful. SDSWelcome if DOD flag is present you will have a button to continue

*BatteryCheck=0*; Check the battery level defined in section BattLevelcheck. If battery level is too low you will get a pop up warning. If 0 we check if the device is plugged to AC power

[BattLevelcheck] Platform= ; names separated by ';' BatteryLevel= ; Percentage

[Logo] JPG=Logo.jpg

[Btn_Top_1] ; 0 -> Edit control ; 1 -> Combo control Type_Btn=0 ; Edit control Btn_Text=IDS_TEXT_1 ; Text in front of the control ("ID" in our example) Nb_Part=1 ; Useful to split the contents of the control (for example an field with ...). Here we have 1 part which is the default value

; TO DEFINE Edit field mask ; x > 0 Length part = x; x = -1 No limit Nb_Digit_Part_1=-1

; 0 -> Numeric ; 1 -> Alpha ; 2 -> AlphaNumeric ; | char (digit must be char) Type_Digit_Part_1=2 ; 1st block contains only letters, no numbers Nb_Digit_Part_2=6 ; 2nd block contains 6 letters or numbers Type_Digit_Part_2=2

; x > 0 string length must be sup or equal to x; x = -1 no min Min_Length=1

; x > 0 string length must be inf or equal to x; x = -1 no max Max_Length=-1

[Btn_Top_2] ; 0 -> Edit control ; 1 -> Combo control Type_Btn=1 ; Dropdown combo box



### Btn_Text=IDS_TEXT_2

Nb_Entries=2

Entry_1=IDS_COMBO_1_DEMO Entry_2=IDS_COMBO_2_DEMO

[Btn_Down_1] Result_Code=1 Btn_JPG=Repair_auto.png Btn_Text=IDS_BTN_1

[Btn_Down_2] Result_Code=2 Btn_JPG=Repair.png Btn_Text=IDS_BTN_2

[Btn_Down_3] Result_Code=3 Btn_JPG=Refurb.png Btn_Text=IDS_BTN_3

[Btn_Down_4] Result_Code=4 Btn_JPG=OEM.png

## SDSWelcome.xml

For each button defined previously in the .ini file, we need to write the corresponding text and translation.

<string ID= « IDS_MON_BOUTON_1 »> <en-US> My translation </en_US> <fr-FR> My button 1 </fr_FR>



# How to customize the repair screen

We are still in the SDSWelcome module. In SDSWelcome.ini we have Result_code=2 and in script.xml if we have result_code=2 we relaunch SDSWelcome module.

### SmartRepair

User data and settings backup Appy user data and settings backup SDS image or SmartImage creation SDS image deployment Updates and Report Hardware Check Windows Diagnostics

### Repair.ini

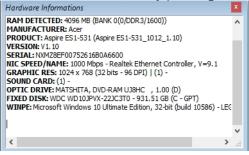
You can preselect some options by default (the user cannot uncheck them).

You can also link some options to others, meaning that if the user selects an option the wizard will automatically select another option that we will have linked (MultiLink section).



# How to get hardware information from SDS UI

### You can get hardware information at any moment from the SDS UI by pressing Ctrl+I: Hardware Informations



# How to get logs required for support purpose

When an error occurs during any process, it is important to grab the logs which will be very helpful in order to diagnose the issue and solve it.

On client side, the logs from the RAMDrive R: are temporary and used to diagnostic a deployment in case of troubles. They are duplicated on the server in reminst\sdkdb\temp. It means that the temp folder will have a folder with all deployment log for each computer booting in WinPE environment

Some logs are generated by SDS product and others from the Microsoft WinPE boot process. The XML

1. Press Ctrl + Alt + D to open a command prompt (press Ctrl + Alt + D). If a dialog box appears to ask you a password, type "sds" and click on "OK" button:

Password 🛛	
•••	
OK Cancel	
Administrator: X:\Windows\System32\cmd.exe	
Microsoft Windows [Version 6.1.7601]	
X:\WINDOWS\system32>_	
	•

2. Plug a USB key and make note of the letter which is assigned to it. You can launch notepad.exe and select "Open" command to see all the drive letters:



Look in:	Computer		- (	3 🤣 🗈 🖽	
<b>4</b>	Hard Disk D	rives (4)			E
cent Places	Sof	tThinks (C:)	DAT	'AS (D:)	7
	26.	6 GB free of 33.8 GB	33.9	5 GB free of 40.6 GB	1
Desktop	MS-	RAMDRIVE (R:)	Boo	t (X:)	1
	7.8	5 MB free of 7.96 MB	439	MB free of 442 MB	1
Libraries	Devices wit	h Removable Storage (	1)	reperer la lettre de la	a cle
<b>N</b>	cor	RSAIR (I:)		usb qui va etre la	
Computer	<u></u>	4 GB free of 59.7 GB	-	destination des fichie	ers
				logs.	
	Network Loo	10.5		L	_
	SDK	(DB			
	File name:	*.txt		<b>_</b>	Open
	Files of type:	Text Documents (*.txt)		-	Cance
	riles of type.	1			

### 3. Create a folder on your USB key:

Administrator: X:\Windows\System32\cmd	.exe	_ 🗆 🗙
Microsoft Windows [Version 6.1.76	01 ]	-
X:\WINDOWS\system32>i:		
I:\>mkdir logsdemo 🛛 🚄 🔤 🛶 🛶 🛶 🛶 🛶 🛶 🛶 🛶 🛶	creation d'un dossier LOGS à la racine de la clé USB	
I : \>		
		-

4. Go to the RAM Drive R:





5. Copy all the files from the RAM Drive to your USB Key:



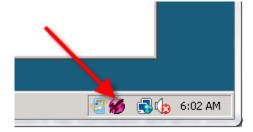
# How to update the license

Please do the following steps to send us the licensing code for the server and we can send you back an activation code.

1. Go to the desktop of the server.

sつ1**tthinks**…

- 2. Look for a small icon will by your clock that is purple/pinkish and says SoftThinks Selector Service when you do a mouse over.
  - a. If that Icon is not there, Navigate to the Remoteinstall\SDKDB\Selector Directory and run SelectorSRVG.exe and the Icon will appear.
  - b. You may have to click the arrow next to the clock to show all the running icons.



3. Right Click on this icon and select Upgrade License :

Selector settings
Start Selector
Stop Selector
Dump database objects
Upgrade License
About SoftThinks Selector
Exit

4. The License Upgrade Dialog box will open :



5. Send us the text from Step 2 in the License Upgrade Screen, and the SDKLicense.slf file from the RemoteInstall\SDKDB\Selector directory.

soft	thinks
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selector					
🔊 🕞 – 🚺 🗸 Compute	er 👻 RIS (D:) 👻 RemoteInstall	I ▼ SDKDB ▼ selector		👻 🐼 Search	
e Edit View Tools	Help				
Organize 👻 📕 Views	▼ Open				
weather Liebe	Name 🔺 📘	Date modified 🛛 🚽	Туре	← Size   ← Tage	ş (,
ivorite Links	BarcodeList.txt	5/17/2012 5:49 AM	Text Document	7 KB	
Documents	🛛 🗋 SDKLicense.slf 🛛 📥	5/17/2012 6:03 AM	SLF File	81 KB	
Pictures	🗿 Selector.ini	4/26/2012 8:46 AM	Configuration Se	IND IND	
Music	💋 SelectorSRV.exe	12/14/2011 5:37	Application	2,192 KB	
More »	SelectorSRV.log	5/17/2012 5:49 AM	Text Document	2,786 KB	
	💋 SelectorSRV_X64.exe	12/14/2011 5:38	Application	2,696 KB	
olders 🗸 🗸	n SelectorSRVG.exe	9/28/2010 4:17 PM	Application	732 KB	
	License upgrade			×	1
DEPLOY.Costco					/
DIFF	1) License path				
	D:\RemoteInstall\SDKDB\s	elector\SDKLicense.slf			
Env_files	2) Send this 'Hardware ID' an	d the previous license	file		
Env_files.Costco	E1346C9B45A6B6C0607D	0EAC4190BD6B7C65E4	4EA1A3414F2968	C188FA9	
Hotline	C859910B3E40C954EA08I	D1A8BAE48F59CBD456	6813332BABDEF1	9E7AC4F	
	64CD8EE4B963			~	
	3) Fill the 'Activation code' to	upgrade your license			
ISO_CREATOR				Cancel	
ISO_CREATOR_VIST					
				ок	
Presets					
Profiles -					
Report					
Dense Castan					

6. Once we have that we can send you back the upgrade key that you will paste into the "Fill the 'Activation code' to upgrade your license field, then click OK to renew the license.

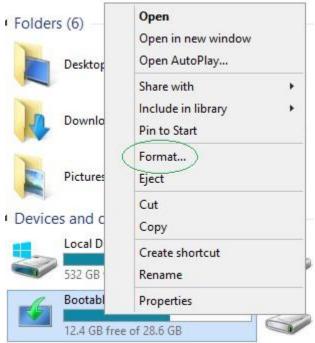
NOTE: Do not close the License Upgrade window until you get the Activation code from us.

# How to format a USB Flash Drive before converting it to a SDS USB Flash Drive

Formatting USB Flash Drive

1. Plug flash drive of at least 8GB into USB port on server.

- 2. Open File Explorer and locate the flash drive
- 3. Right click on the flash drive and select "Format".



4. Select Restore Device default. In most cases this will set the format to "FAT32" and "Default Allocation Size". If it does not, select these options from the corresponding pull down menus. Select "Quick Format" check box.

Capacity:	
28.6 GB	~
File system	
(FAT32 (Default))	~
Allocation unit size	
Default allocation size	~
Volume label Bootable Fl	
Format options	
Quick Format	
Create an MS-DOS startup di	sk
Start	Close

6. Click Start.

softthinks...



# How to boot from Bootable USB Flash Drive with USB Ethernet adapter

The Bootable USB Flash Drive will allow a unit that does not have an Ethernet port onboard to connect to the SDS Server using a USB Ethernet Adapter.

- 1. Ensure the device, laptop, desktop or tablet PC is able to boot to USB in the units BIOS.
- 2. Plug Bootable USB Flash Drive into an available USB port.
- 3. Plug USB Ethernet adapter into USB port and connect to network via Ethernet cable.
- 4. Power on the device and it should boot to the USB drive as default.

**Note:** Most brands of USB Ethernet Adapters are supported by the Bootwim on the USB Flash Drive or have drivers built into the adapter. On rare occasions the Bootwim will not have the driver needed for the USB Ethernet Adapter. These can be added to the Bootwim through the SDS (See <u>Injecting drivers ("Inject Driver(s)" operation</u>)).



# How to prepare the database for the "Update database components" feature

- 1. Define the baseline (the deploy folder, and deploy64 selector) with all files updated.
- 2. Open the console by selecting the master.log from the reference database
- 3. Export into xml and rename it to update.xml (this file will be required on the FTP to accelerate the comparison between the base used and the baseline).
- 4. Prepare an sdkdb_update folder containing the deploy64, deploy, and selector folders from the baseline + update.xml. It is mandatory that the update.xml file corresponds to the deploy, deploy54 and selection contents in terms of files (version & CRC) and if there is any difference the update.xml file must be regenerated.



# How to edit SPL Files

# **SPL File Naming Convention**

The existing sales order system and manufacturing process should be considered when deciding the naming convention to allow for a seamless integration.

The SPL file name must begin with "S" and not exceed 11 characters including "S".

Example: S1234567890.SPL or SModelx.SPL.

Do NOT use any characters other than Alphanumeric ones (NO spaces, dashes, punctuation, etc.).

### **Dynamic SPL Naming Convention**

Here are some examples that can be used to create a dynamic SPL per system:

- S%SerialNumber%.SPL
- S%SalesOrderNumber%.SPL

### **Static SPL Naming Convention**

Here is an example that can be used to create a static SPL for multiple systems:

• S%ProductName%.SPL

## **System DMI Requirements**

Here are the pre-defined System DMI field requirements for deployment using an SPL file. The chosen DMI field must match the name of the SPL file naming convention.

### System DMI Serial Number Field

An Original Equipment Manufacturer (OEM) or an Original Design Manufacturer (ODM) may choose to use the system DMI serial number field (Type1 or Record1):

- Serial Number (SS): %SerialNumber%
- Serial Number (SS): %SalesOrderNumber%

### System DMI Product Name Field

An OEM or ODM may choose to use the system DMI product name field (Type1 or Record1):

• Product Name (SP): %ProductName%

The DMI field name must not begin with (S) and not exceed 10 characters.

Ex: 1234567890 or Modelx. Do NOT use any characters other than Alpha/Numeric (NO spaces, dashes, etc.).

**Note:** The OEM or ODM is responsible for creating the SPL file. This will require development efforts to setup and maintain a translation program. The translation program will need to convert the existing part numbers to the SDK part number format and generate the SPL file.



## **SDK Part Number Format**

The format used for part number scheme and revision control is the following:

• XXXXXX-XXX-XXX

Here are the pre-defined part number format requirements for deployment.

- A = Applications
   Ex: A00001-001-001
   Applications using silent installs, MSI, Installshield, etc.
- D = Drivers (Required if PnP is not used)
   Ex: D00001-001-001
- Device drivers using a PnP enumeration via .inf files.
- Q = QFE Ex: Q00001-001-001 Security patches and updates.
- B = Bundle Ex: B00001-001-001 Applications tied to hardware (link to PnP device ID).
   S = OS
- S = OS Ex: S00001-001-001 Operating System.
- I = Smart Image
   Ex: I00001-001-001
   Smart Image may contain combination of hardware and software.
- P = Partition Scheme (hard coded)
   Ex: P00001-001-001
   Partition scheme based on bard coded n
  - Partition scheme based on hard coded numbers.
- T = Tools
   Ex: T00001-001-001

Tools used for enabling/disabling SDK features (See SDK switches section).

- Z = Tests
  - Ex: Z00001-001-001

Optional deployment tests as specified by the OEM/ODM (See SDK switches section).

### **Definable Partition Number (Recommended)**

- P0111D-p01-100-1 ; User partition, Windows primary, NTFS format, drive letter assigned, use 100% of total hard disk space.
- P 0111D-p01-050-1 ; User partition, Windows primary, NTFS format, drive letter assigned, use 50% of total hard disk space.
- P0112D-p01-100-1 ; User partition, Windows primary, FAT32 format, drive letter assigned, use 100% of total hard disk space.
- P0112D-p01-050-1 ; User partition, Windows primary, FAT32 format, drive letter assigned, use 50% of total hard disk space.
- P0211E-p01-050-1 ; Partition 2, Windows primary, NTFS format, drive letter assigned, use 50% of total hard disk space.
- P0212E-p01-050-1 ; Partition 2, Windows primary, FAT32 format, drive letter assigned, use 50% of total hard disk space.
- P0212E-p01-025-1 ; Partition 2, Windows primary, FAT32 format, drive letter assigned, use 25% of total hard disk space.
- P0311E-p01-025-1; Partition 3, Windows primary, NTFS format, drive letter assigned, use 25% if total hard disk space.
- P0312E-p01-025-1; Partition 3, Windows primary, FAT32 format, drive letter assigned, use 25% of total hard disk space.



# Hard Coded Partition Number

- P00001-000-000 ; No recovery solution.
- P00001-510-000 ; Create system recovery folder, hidden and protected.
- P00001-534-950 ; Create recovery partition at start of disk, hide recovery partition, hide F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-536-950 ; Create recovery partition at start of disk, hide recovery partition, show F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-537-900 ; Create recovery partition at start of disk, show recovery partition, show F10 boot key, swap partition table, auto-sizing + 1000 MB reserved.
- P00001-537-950 ; Create recovery partition at start of disk, show recovery partition, show F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-537-400 ; Create recovery partition at start of disk, show recovery partition, show F10 boot key, swap partition table, 4000 MB Absolute RP size.
- P00001-538-950 ; Create recovery partition at end of disk, hide recovery partition, hide F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-541-950 ; Create recovery partition at end of disk, hide recovery partition, show F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-540-950 ; Create recovery partition at end of disk, show recovery partition, hide F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-539-900 ; Create recovery partition at end of disk, show recovery partition, show F10 boot key, swap partition table, auto-sizing + 1000 MB reserved.
- P00001-539-950 ; Create recovery partition at end of disk, show recovery partition, show F10 boot key, swap partition table, auto-sizing + 500 MB reserved.
- P00001-539-400 ; Create recovery partition at end of disk, show recovery partition, show F10 boot key, swap partition table, 4000 MB absolute recovery partition size.

### **SDK Switches**

- T00003-700-001 ; Do no production management.
- P00001-000-000 : No recovery solution.
- Z00001-600-001 ; Run no tests.
- T00012-001-001 ; Disable PnP over SPL selection.

### SPL files example

- P0111D-p01-100-1 ; User partition, Windows primary, NTFS format, drive letter assigned, 100% use of remaining hard disk space
- A00061-001-001 ; Branding in Windows (wallpaper)
- T00001-001-001 ; Branding in recovery UI
- S00029-001-001 ; XP Home SP2 English v.1, Windows XP (English)
- A00219-001-001 ; Roxio
- A00226-001-001 ; Application
- A00224-001-001 ; .net Framework
- D00003-002-001 ; Intel 845 G Chipset System 5.0.2.1003
- D00006-001-001 ; Intel 865 Integrated Video Driver
- D00026-001-001 ; RealTek LAN driver 5.606.811.2003



# How to edit Data Backup configuration file

You can customize the Data Backup behavior by manually editing the SDSBackupMigration.ini file located in \SDSDB\Deploy\Windows\System32\modules\SDSFileBackup.

There are 3 types of Data Backup which can be set through this configuration file:

- Backup : Users files backup
  - Light Migration : Users files & Settings and OS settings backup
- Full Migration : Users files & Settings, Applications settings and OS settings backup

[SDSFileBackup] ; AutomaticBackup : 0 for Automatic / 1 for Manual AutomaticBackup=0

CountDown=500

; ArchiveName: Backup name that will appear in Data Backup UI if UseNameType is set to 0 ArchiveName=My Backup

; Backup destination (combination of <NAME> <S/N> and <MAC>) ArchiveDestination=W:\<NAME>\<NAME>_<S/N>_Backup

; UserNameType: 0 to use the Backup name / 1 to use the MAC Address / 2 to use the Serial Number /3 to use ; the result of a module (requires to specify the module ID and the value to read in NameType3) ; In the example below, we will use the Account Number value set by module SDS Welcome (121) UseNameType=3 Nametype3=<121> < Account number: >

ArchivePassword= CapturePhoto=1 CaptureAudio=1 CaptureVideo=1 CaptureDoc=1 CaptureEmail=1 CaptureFinancial=1 CaptureOthers=0

; Map: 1 if you wish to store data backups in a folder outside of SDKDB structure or another device Map=1

; If Map is set to 1 you need to specify the following information for the data backup target location: MapDrive=W Login=

Password= Domain= ; UncPath=\\<Server IP address>\<shared folder > UncPath=\\192.168.x.x\x UncPath2=\\192.168.x.x\x UncPath3=\\192.168.x.x\Migration





# How to manually edit WTM configuration files

The SDSconsole for WTM settings use the following files in SDKDB\ENV_FILES\WINVISTA_10_64 or winvista_10:

- WindowsTestManager.xml
- WindowsTestManager_Btn.xml

### WindowsTestManager.xml

WindowsTestManager.xml lets you configure all the settings (and also the custom tests) with the SDSconsole Test part

```
<root>
       <Settings>
              <mode>auto</mode>
                                    //manual or auto
              <sigverif>on</sigverif>
                                           //Check if drivers are signed or not
              <devmanager_on_error>on</devmanager_on_error>
                                                                 //Device manager
              <eventviewer_error_report>warning</eventviewer_error_report>
              <Start_in_Audit>off</Start_in_Audit>
              <Start If Conflict>on</Start If Conflict>
              <ShowSysPrepBTN>off</ShowSysPrepBTN>
              <Rapport_If_Success>on</Rapport_If_Success>
              <Rapport If Failed>on</Rapport If Failed>
              <ShowEvent>off</ShowEvent>
       </Settings>
       <Multimedia>
              <Test WAVE>on</Test WAVE> //Define all the multimedia tests you want
              <Test MIDI>on</Test MIDI>
              <Test MP3>on</Test MP3>
              <Test MIC>on</Test MIC>
              <Webcam chk>on</Webcam chk>
              <Test_HeadPhone>off</Test_HeadPhone>
       </Multimedia>
       <Network>
              \langle | AN \rangle
                     //Define all LAN tests you want
                      <TestLan>on</TestLan>
                      <AutoDHCP>on</AutoDHCP>
                      <AutoDNS>on</AutoDNS>
                      <IP>192.168.X.X</IP>
                      <MASK>255.255.255.0</MASK>
                      <GATEWAY>192.168.X.X</GATEWAY>
                      <DNS1>X.X.X.X</DNS1>
                      <DNS2>X.X.X.X</DNS2>
              </LAN>
              <WLAN> //If you want to test a specific WLAN
                      <TestWLan>on</TestWLan>
                      <SSID>TEST</SSID>
                      <AUTH>open</AUTH>
                                            > // Open, shared, wpa, wpa2, wpapsk, wpa2psk
                      <ENC>WEP</ENC // none,wep, tkip, aes
                      <KEY>XXXXXXX</KEY>
              </WLAN>
                                   ← cf. end document for Wifi Configuration→
       </Network>
       <Oemreset>
              AutoReseal=on
              Time=15
       </Oemreset>
       <Custom test>
              <name>hddcheck</name> //add HDD Check
              <FilePath>C:\WinTEST\HDcheck\hddcheck.cmd</FilePath> //Path of hddcheck.cmd
              <Args></Args>
              <Auto remove>on</Auto remove> //Removed automatically after being used
              <Show>on</Show>
```

<Succes Code>0</Succes Code> <Stop_on_fail>off</Stop_on_fail> <LogFile>C:\WinTEST\HDcheck\diagerror.log</LogFile> //change with the real path </Custom_test> <Custom_test_1> <name>BurninTest</name> <FilePath>C:\WinTEST\BurnInTest8\bit.exe</FilePath>//Path of bit.exe <Args>-L 0,0,0,0 -D 1 -R -X -C CPU+RAM+3D.bitcfg</Args> //Arguments (see doc Console_-_BurningTest Integration Audit Mode for Generic Image) <Auto remove>on</Auto remove> //Removed automatically after being used <Succes Code>666</Succes Code> <Show>on</Show> <LogFile>C:\WinTEST\BurnInTest8\burnsdiag.log</LogFile> //same path defined in your .bitcfg </Custom test 1> ← cf. end document to send burnin test logs to the server→ <Custom_test_2> <name>Smart_Info</name> <FilePath>C:\WinTEST\InfoSmart\Info_Smart.exe</FilePath>//Path of Info_Smart.exe <Args>%DEPLOY LOG%</Args> <Auto_remove>on</Auto_remove> //Removed automatically after being used <Show>on</Show> <Succes Code>0</Succes Code> <Stop_on_fail>off</Stop_on_fail> <LogFile> </LogFile> </Custom test 2> <Custom test 3> <name>Keyboard Test</name> <FilePath>C:\WinTEST\KeyboardTest\KeyboardTest.exe</FilePath> //Path of KeyboardTest.exe <Args></Args> <Auto remove>on</Auto remove> //Removed automatically after being used <Show>on</Show> <Succes Code>0</Succes Code> <Error Code>1</Error Code> <Stop_on_fail>off</Stop_on_fail> <LogFile></LogFile> </Custom test 3> <Custom Report> <Status>on</Status> <Check_nb>10</Check_nb> //Number of buton you define in WindowsTestManager_CustomReport.xml </Custom_Report> <Network_Log> //Setup this part to send the logs back to the server <Letter>N</Letter> <Domain>XX.com</Domain> //Your domain <Login>XXXXXX</Login> //You login <Pass>XXXX</Pass> //Your password <Path>\\xxx.xxx.x.x\reminst\sdkdb</Path> //Your IP or your Server name <SendLog>on</SendLog> // Send logs to the server when exists </Network Log> </root>

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# WindowsTestManager_Btn.xml

The **WindowsTestManager_Btn.xml** file that you can find in the WinTEST root, allows you to modify your main menu (add, remove items)

Enter the same as you did previously in WindowsTestManager.xml.

```
<root>
```

```
<Btn>
      <Custom_test>
             <name>windows_check</name>
      </Custom test>
      <Custom_test>
             <name>multimedia</name>
      </Custom_test>
      <Custom_test>
             <name>network_settings</name>
      </Custom_test>
      <Custom_test>
             <name>BurninTest</name>
       </Custom_test>
      <Custom test>
             <name>hddcheck</name>
      </Custom_test>
      <Custom_test>
             <name>Keyboard Test</name>
      </Custom_test>
      <Custom test>
             <name>custom_report</name>
      </Custom_test>
      <Custom test>
             <name>report</name>
      </Custom_test>
```

```
</Btn>
```

```
</root>
```



#### Examples

#### WIFI configuration:

AUTH	ENC
WPA	TKIP
WPAPSK	INP
WPA2	AES
WPA2PSK	AES
OPEN	NONE
OFEN	WEP
SHARED	WEP

#### Examples for the Wi-Fi

<WLAN>

<TestWLan>on</TestWLan> <SSID>TEST</SSID> </WLAN>

#### () 112/ 11

<WLAN>

```
<TestWLan>on</TestWLan>
<SSID>TEST</SSID>
<AUTH> WPA2</AUTH>
<ENC>AES</ENC>
<KEY>XXXXXXX</KEY>
```

# </WLAN>

<WLAN>

<TestWLan>on</TestWLan> <SSID>TEST</SSID> <AUTH>open</AUTH> <ENC>WEP</ENC> <KEY>XXXXXXX</KEY>

### </WLAN>

# How to manage keyboard layouts for keyboard test

Launch "**KeyboardTest.exe** /edition" to manage the keyboard layouts that are offered when you test the keyboard:

KeyboardTest
Select your keyboard type
Remove keyboard key
Remove Quit Save



# Adding a new keyboard layout

1. Select a pre-defined keyboard layout ("AZERTY standard 102 touches" / "QWERTY standard 102 touches") which will be used as a template in the dropdown list

KeyboardTest	
Select your keyboard type	
AZERTY standard 102 touches           QWERTY standard 102 touches	
Remove Quit Save	

2. Click on the « Remove keyboard key » checkbox²:

												ł	Key	boar	rdTe	est									
elect your QWERTY s				s											R	emove	e keyb	oard key	2						
Esc		F1	F2	2	F3	F4	F	5	F6	F7	F	В	F9	F	=10	F11	F	12					Impr	Ar.D	Pause
~	1	2	3		4	5	6	7	-	8	9	0		-	+		<-		Ins	Home	P.Up	Loc	k /	*	-
Tab	Q		W	E	R	1	r	Y	U	I		0	Ρ	{	[	}	1		Del	End	P.Dowr	1 7	8	9	+
Caps		A	S		D	F	G	H		J	к	L		:			Enter					4	5	6	
Shift			Z	x	С	`\	/	в	N	М		<	>	1	?	Shit	ft			Up		1	2	3	Ent
Ctrl	Win	4	Alt	Sp	ace							Alt		Win		Apps	C	trl	Left	Down	Right	0			
					Rem	ove								Quit	:						Save				

3. Since the pre-defined keyboard layouts contain the maximum number of keys, you will have to click with your mouse on the keys you want to remove (in our example below we removed the Numeric keypad³):

			, ,										Key	/boa	rdT	est					71				
ect your	keyboa	ard typ	e																						
/ERTY st	tandar	d 102 t	ouche	S									1	•		Remo	ve ke	yboard key							
Esc		F1	F2		F3	F4	F	5	F6	F7	F	8	F9	)	F10	F1	1	F12					Impr	Ar.D	Pause
~ .	1	2	3		4	5	6	7	,	8	9	0		-	4	F	<-		Ins	Home	P.Up				
Tab	Q	V	V	E	R	T		Y	U			0	P		{	}		I	Del	End	P.Dov	/n			
Caps		A	S		D	F	G	H	1	J	к	L		:	-	•	Ent	er			1				
Shift		Z	2	x	С	V	,	в	N	N	1	<	>		?	Sł	hift			Up	]				
Ctrl	Win	AI	lt	Sp	ace							Alt		Win		Арр	s	Ctrl	Left	Down	Right				

4. Click on the « Save » button⁴, enter a name for this new keyboard layout⁵ and click on the OK button⁶:

					NURURURU	MUNUMUNU						xeyboard key			00000		
sc		F1	F2	F3	F4	F5	F6	F7	F8	F9 F1	0 F11	F12			Impr	Ar.D	Pause
										Dialo	3						
	1	2	3	4	5	6	7	Keyboa	rd name:		-	6	Ins	Home P.Up			
Tab	Q	w	E	E R	T	Y	U	QWER	TY withoul	t Numeric Ke	ypad		Del	End P.Down			
Caps		A	s	D	F	G	н			ОК	-6						
Shift		z	)	c c	V	в	N							Up			
Ctrl	Win	Alt	:	Space					Alt	Win	Apps	Ctrl	Left	Down Right			

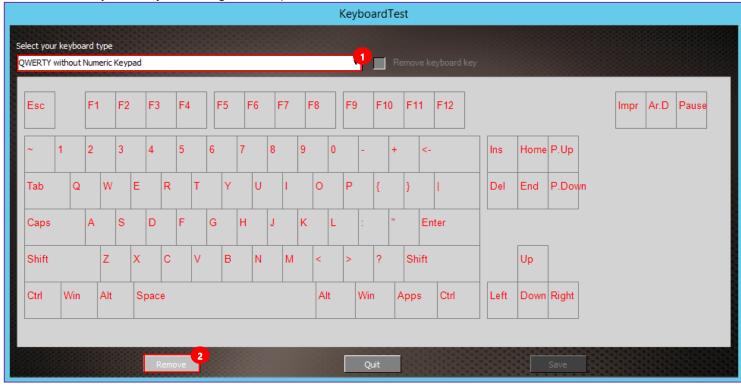
softthinks...



## Removing a keyboard layout

You can remove only a keyboard you added (not the predefined ones).

1. Select the keyboard layout through the dropdown list  $\mathbf{0}$ :



2. Click on the "Remove" button² at the bottom

## Editing a keyboard layout

You cannot edit directly a keyboard layout you added. You have to remove it and then recreate it as described above.

# How to setup wipe rack view

You need to adjust the script and configuration files in the following way to activate rack mode view:

1. Adjust SDSShredder module param1 in the script.xml:

```
<Module Id="96" ConfigFile="<NASMAP:.\array_config.ini>" Param1="0x00000422"
Param2="0x00000000" FullScrn="0"></Module>
```

- a) Add 0x400 to the param1 to activate the rack view
- b) Specify the algorithm to use in param2 as for the standard view
- 2. Adapt the configuration file array_config.ini (located next to deploy_jukebox.exe) to the rack layout:

```
[Config]
; Default configuration file for a 24 ports bay rack to adapt to the rack layout
; Number of rows
Row=4
; Number of columns
Column=6
; Display bay index number in upper left corner
Show Bay Index=1
; Method to retrieve SAS address when a disk is connected through a SAS port
; 0 - Diskpart connector path (Connector index X / path PCIROOT(X)#PCI(Y)#SATA(Z))
; 1 - SCSI path (PortNumber:PathID:TargetID:LUN) - LSI SAS2 HBA (92XX)
; 2 - SCSI path (PortNumber:PathID:TargetID:LUN) - LSI SAS3 HBA (93XX)
; 3 - Full level connector PCI address
HBA Type=0
; File use as background bitmap for each disk bay
BackGround=.\bay background.bmp
; Connectors path: replace each index value by the real connector / sas disk address
Connectors=1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24
; if HBAR_Type=1 or 2: Connectors=1:0:100:0,1:0:101:0,....,
; To use several connector entries, specify the serial number returned by the command
wmic "SELECT SerialNumber FROM Win32 BIOS"
Connectors <SerialNumber>= 1,2,3,PCIROOT(0)#PCI(1F02)#SATA(C04T00L00),5,6,7,...
```

a) Set the number of rows and columns (4 and 6 respectively for a 24 bays rack as below):

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24



- b) Configure the connectors: All connector addresses must be filled manually regarding the hardware or the way you plug connectors. So basicaly you have to find the real connector path or SAS address manually.
  - 1) For non SAS cards, you can grab the connector path from SDSShredder classic view or from Diskpart:
    - a. In classic view, plug a disk to each port one by one and grab the connector path displayed:

Softthinks Deployment Suite"	softthinks
Disk Cleaner Disk or volume data will be sanitized using a secured algorithm	
Basic (0)	
Stop Disk ID: 0 - Model: HGST HTS545050A7E380 - Size: 465.762 GB - SN: 130727TE85A3L917L	.3ZP - #:
82579LM Gigabit Network Connection, V=12.12 PC: Hewl	D

b. With DISKPART DETAIL DISK command, grab the Location Path: X+\WINDOWS\SYSTEM32>DISKPART_EXE

X: \WINDOWS\SYSTEM32>DISKPART.EXE
Microsoft Diskpart version x.y.zzzz
Copyright (C) 1992-2018 Microsoft Corporation On computer: <computer name=""></computer>
DISKPART> SELECT DISK <disk number="">&gt;</disk>
Disk <disk number=""> is now the selected disk.</disk>
DISKPART> DETAIL DISK
HGST HTS54505017E380
Disk ID :
Type : SATA
Status : Online
Path : 1
Target : 0
LUN ID : 0
Location Path : PCIROOT(0)#PCI(1F02)#SATA(C0T0L0)

<u>Note</u>: USB disk could not be identified by diskpart or third party tool so you need to start shredder module in classic view mode to retreive connector path

2) For SAS cards, you can use a third party tool to dump SAS address. For LSI cards, you can use SAS2 / SAS3 IR Configuration Utility (SAS2IRCU/SAS3IRCU): LSI Corporation SAS2 IR Configuration Utility. Version 20.00.00.00 (2014.09.18) Copyright (c) 2008-2014 LSI Corporation. All rights reserved. SubSys SubSys Adapter Vendor Device Ven ID Dev ID ID ID Index Pci Address Туре SAS2008 1000h 72h 00h:03h:00h:00h 1000h 3020h 0 SAS2IRCU: Utility Completed Successfully. LSI Corporation SAS2 IR Configuration Utility. Version 20.00.00.00 (2014.09.18) Copyright (c) 2008-2014 LSI Corporation. All rights reserved. Read configuration has been initiated for controller 0 Controller information Controller type : SAS2008 **BIOS** version : 7.39.02.00 Firmware version : 20.00.07.00 Channel description : 1 Serial Attached SCSI Initiator ID : 255 Maximum physical devices : 255 Concurrent commands supported : 3432 Slot : 32 Segment : 0 Bus : 3 Device : 0 Function : 0 RAID Support : No ------_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ IR Volume information Physical device information _____ Initiator at ID #255 Device is a Hard disk Enclosure # : 1 Slot # : 1 SAS Address : 4433221-1-0200-0000 State : Ready (RDY) Size (in MB)/(in sectors) : 238475/488397167 : ATA Manufacturer Model Number : WDC WD2500JD-22H Firmware Revision : 2D08 : WDWMAL71031724 Serial No GUID : N/A Protocol : SATA : SATA_HDD Drive Type

: 1 : 4 : 4433221-1-0700-0000 : Ready (RDY) : 1907728/3907027054
: 4433221-1-0700-0000 : Ready (RDY) : 1907728/3907027054
: Ready (RDY) : 1907728/3907027054
: 1907728/3907027054
: ATA
: WDC WD20EFRX-68A
: 0A80
: WDWMC300243776
: 50014ee058c98893
: SATA
: SATA_HDD
: 1
: 6
: 4433221-1-0500-0000
: Ready (RDY)
: 476940/976773167
: ATA
: TOSHIBA MK5056GS
: 3D
: 21LBTK3HT
: 5000039311505d92
: SATA
: SATA_HDD
: 1
: 500605b0:01bd1520
: 8
: 0

<u>Note</u>: For each SAS disk, DISKPART is not accurate in reporting valid connector path because they were reused once disk is removed or added. We need for this to talk to HBA SAS card to find real SAS address behind HBA chipset

Here is an example view with mixed disk SATA+USB, you could setup what you need according your hardware. The config file looks like this since there is no HBA SAS card plugged here.

Connectors=PCIROOT(0)#PCI(1F02)#SATA(C00T00L00),PCIROOT(0)#PCI(1D00)#USBROOT(0)#USB(1)#USB(3), 3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

With HBA card installed, you need to add the proper SAS address (without dash '-') for each disk bay index separated by comma:

Connectors=4433221102000000,44332211070000000,44332211050000000,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

sつ<u></u>[た**し**1]**1**|**5**]

# How to setup the auditing module

You need to create a question file and fill properly IDS strings according to the question specified. The syntax is pretty simple and described below.

Script.xml usage:

```
<Module Id="xxxx" ConfigFile=".\QuestionDefinition.txt" Param1="0x0" Param2="0x0" FullScrn="0"></Module>
```

param1: 0x1 - Automatically adjusting column size regarding question param2: N/A

Return Result Code

1 = error0 = OK

QuestionDefinition.txt syntax:

; A question is displayed only if they are not part of conditional choice.

; All questions are displayed in their index order IDS_QUESTION1, then IDS_QUESTION2...

; Question prefixed by ';' in front of the line are commented, and so not displayed

; Questions can contain special characters through XML syntax ('< 5' would become <en-US>&lt;5</en-US>) ; By default, the first answer is selected except if you are forcing it by inserting the index (0 based) of the answer to preselect right after the question (IDS_QUESTION<x>,<preselected index>:...) ; If a question has only one value, it's an edit control. You can make it read-only by prefixing the value by the character 'R' (IDS_QUESTION<x>:R,<IDS_EDIT_CONTROL_VALUE>)

; If a question has several values, it's a combo box. You can make it read-only and specify is this case which is the selected response (IDS_QUESTION<x>:R<y>,<IDS_VALUE_<y>,IDS_VALUE_<z>)

; %CPU% is a special keyword to replace answer on the fly could be one of the followings:

; Generic: CPU, RAM

; SMBIOS Area 0: BIOS_VENDOR, BIOS_DATE, BIOS_SIZE, BIOS_VERSION

; SMBIOS Area 1: SYSTEM_MANUFACTURER, SYSTEM_PRODUCT, SYSTEM_VERSION, SYSTEM_SERIAL, SYSTEM_UUID, SYSTEM_SKU

; SMBIOS Area 2: BOARD_MANUFACTURER, BOARD_PRODUCT, BOARD_VERSION, BOARD_SERIAL

; Question 1 below is a simple question with 3 choices ( $3^{rd}$  one preselected) which doesn't raise any other question:

IDS_QUESTION1,2:IDS_VAL1,IDS_VAL2,IDS_VAL3

; Question 2 below is a 3 choices question (3rd one preselected) which raises 2 other questions (Question3 and Question4) if the 2nd choice (IDS_VAL1) is selected: IDS_QUESTION2,2:IDS_VAL2,IDS_VAL1=IDS_QUESTION3+IDS_QUESTION4,IDS_VAL3

; Question 3 and 4 below are a 2 choices question (1st one selected) which are displayed only if 2nde choice has been selected for Question 2. Question 4 is a read-only combo box with 2nd choice selected IDS_QUESTION3,0:IDS_VAL4 ,IDS_VAL5 IDS_QUESTION4:R1,IDS_VAL6, IDS_VAL7

; Question 5 below is a 2 choices question (2nd one preselected) which raises question 4 under question 5 when the 1st choice (IDC_VAL1) is selected IDS_QUESTION5,1:IDS_VAL1=IDS_QUESTION4,IDS_VAL2

; Questions 6 and 7 are edit controls. Question 7 is read-only IDS_QUESTION6:%CPU% IDS_QUESTION7:R,%RAM%

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# How to disable automatic deployment when a profile/preset is matching the system

You can either skip the profile dialog by setting the value ShowProfileDialog to 0 in the section [General] of Deployjb.ini (See <u>DeployJB.ini</u>) or you can prevent to search for profiles in a specific folder by modifying the value SEARCH_MODE in the section [General] of SDSProfiles.ini (See <u>SDSProfiles.ini</u>).

# BurnInTest

# **BurnInTest Disk Test Suite**

This suite contains a number of tests that exercise the mass storage units (hard disk or otherwise) connected to the computer.

These tests can be on the File System (e.g. NTFS disk volume C:) or directly to the physical disk (e.g. physical disk 1, not using a file system like NTFS).

The physical disk test is available on unformatted disks and formatted disks that do not contain Windows installations or paging files.

On WinPE environment, only unformatted disks are supported for the physical disk test.

By default drive C: is used for the hard disk but this can be changed from the Preferences Dialog and up to 50 drives can be selected for simultaneous testing. From this 50 it is possible to select combinations of available floppy disks, hard disks and flash drives.

Drives can be connected via the IDE bus, SATA, eSATA, SCSI, USB, Firewire or any other method supported by Windows.

You can select one of the following test modes or choose to automatically cycle between the patterns. This selection is done in the preferences window. Possible test modes are:

- Default (Cyclic)
- Sequential data pattern (0,1,2...255)
- Random data with random seeking
- High Low frequency data overwrite (10101 then 00001)
- Butterfly seeking
- Binary data pattern 1 (10101010)
- Binary data pattern 2 (01010101)
- Zeros data pattern (0000000)
- Ones data pattern (1111111)
- Random data pattern
- User defined test pattern
- Quick physical drive test
- Physical drive read test

During each test cycle (except Butterfly seeking and Quick physical drive test) a file is created and verified on the disk.

For the physical disk test there is no file system (e.g. NTFS) to write 'visible' files. As such BurnInTest will create 'virtual' files directly to the disk. This will destroy any data on the disk. The physical drive test in general will be much faster than the formatted drive test and provide better results.

The only exception is the Physical drive read test which will only read directly from the physical disk, and hence will not overwrite any data on the disk.

The size of the file is equal to a certain percentage of the disks capacity and all files are created in the root directory of the drives selected. The default file size is 1.0% of the disk size. For small capacity drives, like floppy disks, there is a minimum file size of 32KB. It is possible to change the default file size percentage from the preferences window.

Each test file is filled with a coded number sequence (a Pattern) that is used to verify the correct operation of the disk when the file is verified (read). Files are created in the free space on the disk until the disk is at least 94%* full (we'll refer to this as the 'full' level). When the disk has reached this limit, all the test files are deleted and the test starts again. (*) 94% is used on disks that have a swap file or a Windows directory. A limit of 94% is used to ensure that some space is kept for use by other applications (including the windows swap file). On disks that do not have a swap file or a Windows directory, between 99.5% and 100% of the disk will be used.

A number of test modes perform additional testing to that described above. These are described below: Random data with Random seeking consists of 2 repeating steps, (1) Writing, reading and verifying a test file with random data and (2) Seeking two random locations in the test files and reading or writing data blocks at this location.

(1) BurnInTest generates 7 unique blocks of random data for each disk under test (the block size is determined by the User preferences settings e.g. 16KB). BurnInTest sequentially writes a file using the first block of random data, followed by the second, third, forth, fifth, sixth and seventh and then the first etc, until the file size specified is reached (e.g. 0.1% of the disk size). After writing this test file with the random test data, the data is read sequentially and verified against the test data written.

(2) Following the writing and verifying of each file, the random seek part of the test starts. BurnInTest will select a test file at random (1..n, where n is the number of the test file that has already been written to disk). It will then select a random block within that test file (i.e. an offset into the file of, block number x block size, eg. 10 * 16KB = 160KB). BurnInTest will seek to this position in the test file and take an action. BurnInTest, at random, will either (i) read and verify a block at this position in the file or (ii) write a block at this position in the file. This process is repeated the number of times specified by the user in the disk preferences "seek count" field.

Steps (1) and (2) are repeated until the disk full level is reached. At this point, all the test files written to disk will be deleted and the process will be repeated.

The Random seeking mode is not supported when the Raw disk test mode is selected.

High Low frequency data overwrite works by first writing a file with a high frequency pattern with each byte set to 0xAA (1010 1010 1010...), then overwriting this with a low frequency pattern 0x08 0x42 0x10 0x84 0x21 (1000 0100 0010 0001 0000 1000 0100 0100 0010 0001) and then verifying that the low frequency pattern has been fully and correctly written. Note: This test pattern will write more data than it reads/verifies, this is the reason the MB Written and MB verified shown on the disk test window may not be equal.

Butterfly seeking works by detecting the hard disk geometry (number of cylinders etc) and then seeking between cylinder 0 and cylinder X and back to cylinder 0. This is repeated the user specified 'seek count' times, before X is incremented by 1. This is repeated until the last cylinder on the Volume is reached. The number of operations reported refers to the number of combined Seek/Read operations.

Note: (1) that this test is only supported in Windows XP and above on non-Floppy, non-optical drives.

(2) Performing a seek in many cases does not move the disk driver head, to ensure the disk drive head is moved to the seek position, a small read (of the Sector size) is done at each seek position. Also, incremental offsets of the sector size are used for the 'X ' seek and the return to '0' seek, to ensure that the disk drive cache is overflowed and physical disk seeks consistently occur (once the disk cache has overflowed).

(3) Disk drive geometry may be faked or translated by hard disks/device drivers and may not be the actual drive geometry.

(4) The Cylinders, track and sector size used are typically logical values provided by the hard disk.

(5) Up to 8 different physical extents per Volume (or Drive letter) are supported in the butterfly seeking test.

(6) As with other disk tests, if a physical disk is partitioned into multiple volumes (drives) and testing is simultaneously carried out on these volumes, the nature of the test will change. In the case of Butterfly seeking, the movement of the physical disk drive head will not reflect butterfly seeking, but something between butterfly seeking and random seeking, as the seeks for volume 1 go from its logical cylinder 0 to X and the seeks for volume 2 go from its logical cylinder 0 to Y are mixed in time.

(7) Some disk drive device drivers do not support the supply of disk geometry information that is needed for this test.

(8) The Raw disk test option does not support the Butterfly seeking test mode and will be skipped. Error reporting may be configured not to report "Butterfly seeking test not supported for this disk" errors. This can be achieved by editing the Error Classifications file (BITErrorClassifications.txt) for Error Number 160 to NONE. For example, changing the line from:

160,"Butterfly seeking test not supported for this disk", INFORMATION,

to

160,"Butterfly seeking test not supported for this disk", NONE,

The default setting is to cycle between the patterns. In this case a new pattern will be selected each time the disk has reached the BurnInTest 'full' level. Where the disk drive is a floppy, CD, DVD, or the operating system is Vista (and later) and the user is not running BurnInTest with 'elevated' administrator privileges, then Butterfly seeking will be skipped in the Cyclic testing and a log message reported.

The Quick physical drive test works by writing, reading and verifying virtual test files to the start of the disk, the end of the disk and a random selection in between. This provides for much quicker disk testing.

The Physical disk read test, tests that all sectors on the physical disk can be read. This can be useful for a number of reasons including testing that a disk is the size that it reports it is (we have seen disks and USB Flash Drives that have this issue).

You can chose to log SMART (Self-Monitoring Analysis and Reporting Technology) errors.

Each of the following settings: Slow drive warning threshold, File size, Test pattern and the logging of SMART errors may be configured differently for each disk drive. The disk drive Duty Cycle setting will be used for all drives when the Duty Cycle Override entry is set blank (no value). If a different duty cycle is required for a particular disk drive, a value may be entered in the Duty Cycle Override entry.

The following settings can be configured differently for each drive: Slow drive warning threshold, File size, Test Pattern and Log SMART errors. To use the general disk drive Duty cycle for each disk just set the Duty Cycle override value to blank (no value), otherwise set the required value per disk. If an error is detected in the coded number sequence then the error count is incremented. The numbers of bytes written and read from the disk are displayed in the test window. The addition of these two values is displayed in the main window.



#### BurnInTest Disk Self-Test

The Disk Self-Test (DST) is a set of built-in routines implemented by the vendor to perform failure diagnostics on the disk. The execution of the DST and the retrieval of the test results are defined by the ATA industry standard. Most drives that conform to this standard implements this set of built-in routines.

If the "SMART" option is selected for the disk test, then the DST is run before the standard BurnInTest disk test. If the "-f" command line parameter is also specified, then an extended disk self-test is also run. If the DST is not supported by the disk, a message will be logged and the DST skipped.

Disclaimer: It has been observed that some drives that claim to support the Disk Self-Test (DST) standard do not in fact fully support the specification. Some drives report the percentage progress incorrectly, and some drives report their status incorrectly.



### BurnInTest CPU test

The CPU test exercises and verifies a wide range of CPU instructions, at user specified loads. The user selectable subcategories of the CPU test are:

General purpose instructions (x86) Floating Point Unit (FPU) instructions (x87) CPU extension instructions (x86 extensions).

The specific extension instructions may be selected: MMX, 3DNow!, SSE, SSE2, SSE3, SSE4.1, SSE4.2 and SSE4a.

Prime number test

#### Maximum heat test

The numbers displayed in the test window for this test represent how many millions of CPU operations have been performed and verified. Each different CPU test is run for half a second. After all tests have been run the cycle count is incremented. The duty cycle and the CPU speed determine how many operations can be processed during the half second period. Note however that if only the Maximum heat test is selected, then the duty cycle is set to 100% and a single cycle is defined to be 1 trillion CPU operations.

By default, a CPU test is run on each CPU core. The number of CPU tests running a particular subcategory is shown in the test window in the "Threads" column.

The number of CPUs (Packages x cores x threads) that can be tested is up to 256 (where supported by the Operating System). That is, CPUs across multiple "processor groups" can be tested (see Note 2 below).

It is possible to raise an error on a user defined CPU temperature threshold being exceeded. It is also possible to automatically stop testing in this scenario.

The sub-categories of this test are described below:

General purpose instructions: This test exercises and verifies correct operation of CPU instructions from the following groups: Integer mathematics (e.g. add, subtract, multiply and divide) Data transfer instructions (e.g. pushing/popping data to/from the stack) Bitwise logical instructions (e.g. bitwise and/or/xor) Shift and rotate instructions (e.g. shift data left x number

of bits) Logical instructions (e.g. equals)

Control transfer instructions (e.g. jump on x greater than y)

String instructions (eg. copy a text string)

Known and random data sets are used to exercise and verify correct operation. On 32-bit systems, 32-bit data sets are used. On 64-bit systems, 64-bit data sets are used. The random numbers are generated regularly to provide a larger data set, as well as ensure that the CPU caches overflow and that this mechanism is tested.

### Floating Point Unit (FPU) instructions:

This test exercises and verifies correct operation of CPU instructions from the following groups:

Floating Point math (e.g. add, subtract, multiply and divide)

Transcendentals (e.g. sine, cosine)

Load constants (e.g. load Pi)

Known and random data sets are used to exercise and verify correct operation. On 32-bit systems, 32-bit floating point data sets are used. On 64-bit systems, 64-bit floating point data sets are used. The random numbers are generated regularly to provide a larger data set, as well as ensure that the CPU caches overflow and that this mechanism is tested.



Extension instructions (x86 extensions):

This test exercises extensions to the x86 CPU instruction set for a variety of applications, such as multimedia.

!: This test exercises and verifies correct operation of CPU 3DNow! instructions, including a sample of moving 3DNow! registers, adding, subtracting, and multiplying. Known and random data sets are used to exercise and verify correct operation. Data sets are pairs of 32-bit floats (eg. x,y), where x and y are 32-bit floats.

MMX: As above, but for MMX instructions. Instructions include moving MMX registers, adding, subtracting, and multiplying.

Data set: 64-bit data sets are used. SSE : As above, but for SSE instructions. Instructions include moving SSE registers, adding, subtracting, and multiplying.

Data set: groups of 4 x 32-bit floats (e.g. a,b,c,d) where a,b,c and d are 32-bit floats.

SSE2: As for the SSE test, but for SSE2 instructions. Data set: pairs of 64-bit floats (e.g. x,y) where x,y are 64-bit floats.

SSE3: As for the SSE2 test, but for SSE3 instructions. Data set: pairs of 64-bit floats.

SSE4.1: As for the SSE3 test, but for SSE4.1. Instructions include a sample of mov ing registers and multiplication. Data set: pairs of 64-bit integers.

SSE4.2: As for the SSE4.1 test, but for SSE4.2 instructions. Instructions include CRC helper functions. Data set: pairs of 32-bit integers.

SSE4a: As for the SSE4.1 test, but for SSE4.a instructions. Instructions include data extraction functions. Data set: pairs of 64-bit unsigned integers.

AES: A test using the AES instructions.

Notes:

- 1. MMX stand for "Multimedia Extensions".
- 2. SSE stand for "Streaming SIMD extensions".
- 3. SIMD stands for "Single Instruction Multiple Data."

4. Tests are only performed if the CPU supports that test. For example, SSE3 tests will only be performed if the CPU supports SSE3.

- 5. Known and random data sets are used to exercise and verify correct operation
- 6. The random test data is generated regularly to provide a larger data set, as well as ensure that the CPU caches overflow and that this mechanism is tested.

7. AES stands for Advanced Encryption Standard.

#### Prime number:

This test exercises and verifies correct operation of CPU through the use of a prime number generation algorithm.

### Maximum heat:

Based on PassMark Software testing of a set of CPU algorithms for different systems, a test has been produced that aims to generate the highest CPU temperature possible by BurnInTest. This test is aimed at checking that the cooling system is capable of doing its job with the system CPU under extreme load, especially when the CPU has been overclocked.

#### Notes:

(1) Some CPU operation tests are only supported in the 32-bit version of BurnInTest. These are: 3DNow!, MMX, Push/Pop stack operations, Transcendental's and Load constants.

(2) A normal software application only has access to a single "processor group". BurnInTest has been designed to test CPUs across multiple processor groups and hence test more than 64 logical processors. For more information on a "processor groups" see Microsoft's website, an extract is included below:

"The 64-bit versions of Windows 7 and Windows Server 2008 R2 support more than 64 logical processors on a single computer. This functionality is not available on 32-bit versions of Windows. Systems with more than one physical processor or systems with physical processors that have multiple cores provide the operating system with multiple logical processors. A logical processor is one logical computing engine from the perspective of the operating system, application or driver. A core is one processor unit, which can consist of one or more logical processors. A physical processor can consist of one or more cores. A physical processor is the same as a processor package, a socket, or a CPU.

Support for systems that have more than 64 logical processors is based on the concept of a processor group, which is a static set of up to 64 logical processors that is treated as a single scheduling entity. Processor groups are numbered starting with 0. Systems with fewer than 64 logical processors always have a single group, Group 0."



### **BurnInTest Memory Test**

The Memory test, tests the reliability of the RAM installed in the computer. As BurnInTest runs within windows some of the available RAM is being used by windows and any other applications running. Any memory that is not already in active use will be tested by the Memory test.

The Memory test works by writing a pattern numbers in the RAM, then verifying the numbers read from the RAM match this sequence. The pattern used can change automatically from one cycle to the next.

Possible test patterns are,

- 1. Sequence (0,1,2...)
- 2. Binary 1 (10101010...)
- 3. Binary 2 (01010101...)
- 4. Zeros (0000000...)
- 5. Ones (11111111...)
- 6. Cell adjacency test

The Test pattern may be selected to be one of the above test patterns. Alternatively, the default (Cyclic) setting will cycle through each of the test patterns.

The total amount of free RAM is displayed in the Memory Test Window. Some memory is always left available to avoid Out of Memory Errors, and disk thrashing caused by Windows swapping to disk. The MBs Written and MBs Verified fields on the Memory Test Window are cumulative since the start of the test and can be greater than the size of the installed RAM. For the Memory test, a cycle is defined to be the number of times the above 3 step sequence is completed. The 'operations' count represents the number of bytes read or written.

It should be noted that not all RAM faults will be detected by this test. This is especially the case if Windows or the Windows cache is using a large proportion of the available RAM. RAM faults may show up as system crashes or disk errors however. RAM fault detection is improved by running a RAM pretest, available with the Standard memory test. See RAM test preferences.

How the tests work:

There are 3 steps that the Sequence, Binary 1, Binary 2, Zeros, and Ones (11111111...) tests goes through. These are: 1/ Memory allocation. The test will dynamically allocate and release memory depending on how much is currently available. The amount that has been allocated and is under test is displayed in the Test Ram field.

2/ Writing the test data from the low address to the high address.

3/ Verifying the test data from the low address to the high address.

The Cell adjacency test aims to find the RAM problem of adjacent memory cells being incorrectly changed when writes occur to a memory cell. A known 8-bit data pattern is written to memory from the high address range to the low address range. Then starting at the low address and testing towards the high address, each byte is checked that it was not altered by an adjacent write in the prev ious writing of memory and a new 8-bit data pattern is written. A final pass is then made starting at the high address and testing towards the low address, with each byte is checked that it was not altered by an adjacent write in the previous writing of memory.

### Standard memory test

The standard memory is the normal test for testing memory. See the description in the RAM test preferences window for more details.

### • Torture test (Memory over-allocation & disk swapping test) (BurnInTest Professional only)

The torture test is a multi-process memory test. Multiple processes are started in their own virtual address space and each process allocates and tests a block of RAM. This avoids the problem of virtual memory fragmentation which the standard test can experience trying to allocate a single large block of RAM. Each process runs asynchronously, so writing and reading of various memory blocks will take place at the same time in different processes. The other advantage over the standard test is the possibility to over-allocate the RAM. (The standard test attempts to prevent this to avoid disk swapping). Over-allocation takes place when more RAM is used by the torture test than is currently available in the system. This then results in Windows disk swapping memory blocks into a paging file on the disk. This continual swapping to and from the disk places a very heavy load on the system. The I/O activ ity on the disk will increase dramatically but CPU load can actually decrease as more and

more time is spent waiting for the paging activity to complete. Depending on the level of over-allocation Windows may need to extend the paging file or may even fail as it runs out of available RAM.

• Addressing Windows Extension (AWE) memory test (32-bit BurnInTest Professional only)

The Addressing Windows Extension (AWE) memory test allows a larger area of memory to be tested on 32-bit versions of Windows. It requires some additional administrator user rights. It will also only work in Window XP. See the description in the RAM test preferences window for more details. The advanced memory test is only available in the Professional version of the software.

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