

WellCAD Guidelines for Network Administrators

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From version 5.6 onwards, WellCAD[™] uses a licensing technology called Sentinel (from Thales). This document provides guidelines on the configuration and administration of Sentinel network licenses for WellCAD[™].

Please note that this installation should most likely be carried out by your IT/Network administration or with their assistance.

Please make sure to check the Troubleshooting and tips section in case of an issue prior to contact ALT's technical support.

Server preparation

Server preparation Before a computer can be used as a network server, it needs to be configured. Please perform the following steps :

- 1. Ensure the server has access to ems.alt.lu on port TCP/443 (standard HTTPS). This outgoing connection is used for license activation/installations and license updates.
- 2. Ensure the server is accessible to all client machines via port TCP/1947. Inbound connections on this port are used to provide the client with a license to use WellCAD.
- 3. Download and install WellCAD Network Licensing. This package includes the Sentinel runtime environment and applications for activating, updating and managing licenses.

Activating and installing a new network license

To activate and install a new network license :

- 1. Under the *WellCAD Network Licensing* group in the Start Menu, select Install or *Update WellCAD License*. You will be presented with the dialog box in Figure 1.
- 2. Copy the activation code provided by ALT into the corresponding edit box and click the *Activate* License button. If successful, you will be presented with a confirmation message (see Figure 2).
- 3. Close the dialog box. The license is now activated and installed on the server.



WellCAD License		<	
To activate and install a network been sent and click "Activate Lic	license on this server, please enter the activation code you have ense".		
Activation Code	x0000000-x000-x000-x0000-x000000000x		
To update an existing network license on this server, please click "Update License" below.			Figure 1 WellCAD License activation and update dialog box
	Update License Close]	



Installation of WellCAD on client machines

To install and configure WellCAD on a client machine:

- 1. Download and install WellCAD
- 2. Under the WellCAD group in the Start Menu, click WellCAD.
- 3. The Sentinel licensing system will automatically attempt to find an appropriate licensing server using broadcast packets on your local network. If it is successful, WellCAD will load and there is nothing further to do.
- 4. If a licensing server cannot be automatically found, you will be presented with a License Configuration dialog box as shown in Figure 3.
- 5. Ensure that the Network option is selected and enter the IP address or host name of the license server. Click OK to start WellCAD.

Note, for automatic deployments of WellCAD, the license server hostname or IP can be specified by setting the WELLCAD_LICENSE_SERVER environment variable on each client machine.

In case of technical issues, refer to section 6.

License Configuration	×		
 Please select the license type from the list below and enter any additional information: For a network license, enter the hostname or IP address of the machine running the remote license manager For a node-locked license, please enter the activation code that has been provided If you have a hardware dongle-based license, insert the dongle now 		/	Figure 3 WellCAD License Configuration dialog box for license activation and update
Network Node-Locked Dongle OK Cancel			
			www.alt.lu



Updating a network license

ALT can automatically offer updates to existing WellCAD licenses via an online update mechanism. These updates may be for additional seats, add-on modules or newer versions of WellCAD. To perform a license update, follow the steps below on the network licensing server:

- Open the Windows Start menu and WellCAD *Network Licensing* group.
- · Click on Install or Update WellCAD License to open the WellCAD License dialog box (see Figure 1).
- Ensure that you are connected to the internet and click the *Update* License button.
- · If there is an update waiting, a message box (see Figure 4) will inform you and ask for permission to proceed.
- · After successfully updating the license, a confirmation message will be displayed.

WellCA	D	×	
?	New updates are available for your W license. Would you like to start the update pro	ellCAD ocess now ?	Figure 4 WellCAD Updates
	Yes	No	

In the case that the license update includes a version upgrade (e.g. updating from version 5.6 to 5.7), the WellCAD application on the client machines will also have to be upgraded to be able to access the new functionality.

Borrowing a network license

Borrowing a license allows the user to transfer a license from the license server to his computer to be used off-line for a defined time window.

- · Open the Windows Start menu and WellCAD group.
- · Click on WellCAD Borrow to open the dialog box providing the borrowing options (see Figure 5).
- Enter the desired date and time for the return of the license (Ensure the date does not exceed the maximum borrowing period or license expiration dates. The maximum borrowing period can be defined in the Admin Control Center and is set to 28 days by default.)
- · Select the add-on modules that are required while working off-line.
- · Click the Borrow button to detach a license from the server.

If the return date has been reached the detached license will automatically expire. To return a detached license earlier click the List *Borrowed Modules* button and in the *WellCAD Modules* dialog box click on *Return Borrowed Modules Early.*

Date: 2023- Time: 12:54	01-16 🗐 👻	Figure 5 WellCAD Borrow dialog box
Modules		
Basic		
Image	🗌 ISI	
Casing Integrity	US/DLIS	
FWS	NMR	
NMRSA	ODBC	
Multiwell	Deviation	
CoreCAD	Automation	
Browser		
Borrow	List Borrowed Modules	



Re-hosting a network license

Re-hosting is the process of disabling a license on one license server and enabling it on another one. Before beginning, ensure the new licensing server is correctly prepared and the WellCAD Network Licensing software package is installed, as stated on the first page.

- Start the *Transfer WellCAD License* application on the new server from the *WellCAD Network Licensing* group in the Windows Start menu.
- In the *RUS* dialog box select the *Transfer License* tab (see Figure 6) and follow the instructions provided under the *Collect information about the recipient computer* (Step 1) section and save the information in a Recipient Information File.
- Open the Transfer WellCAD License application on the current license server.
- Follow the instructions provided under the *Generate the license transfer file* (Step 2) section, to read the Recipient Information File, and generate the Transfer File.
- Open the Transfer WellCAD License application on the new license server and open the Apply License File tab.
- At the bottom of the tab, select the Transfer File and click on Apply Update to enable the license.

Collect Status Info	rmation	Apply Licens	e File	Transfer L	icense	
transfer (rehost) a gram on both con I perform the app	a license fror nputers. On ropriate step	n one compi each comput	uter to a er, selec	nother, you ro t the Transf	un the R e r Licer	US Ise tab
Collect information	on about the	recipient cor	nputer-			
Step 1: On the c "recipient compu	omputer to v iter"), collect	/hich you wa and save inf	int to tra formatio	nsfer the lice n about the c	ense (the computer	:
Save recipient in	nformation to	<u> </u>				
			C	ollect and Sav	/e Inforn	nation
Generate the lice Step 2: On the o	nse transfer omputer that	file currently co	ontains ti	ne license (th	e "sourc	ie Ci
Generate the lice Step 2: On the c computer"), sele and generate a li	nse transfer omputer that ct the license icense transf	file currently co to transfer, er file.	ontains t read the	he license (th e recipient inf	e "sourc formatio	e n file
Generate the lice Step 2: On the o computer"), sele and generate a li Key Type	nse transfer omputer that ct the license icense transf Key ID	file currently co to transfer, er file.	ontains the read the Produ	he license (th e recipient inf ucts	e "sourc formatio	e n file
Generate the lice Step 2: On the o computer"), sele and generate a li Key Type	nse transfer omputer that ct the license icense transf Key ID	file currently co to transfer, er file.	pritains ti read the Produ	ne license (th e recipient inf icts	e "sourc formatio	e n file
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Generate the lice Step 2: On the c computer"), sele and generate a l Key Type Read the recipien Generate the lice	nse transfer omputer that ct the license icense transf Key ID nt informatio	file currently cc to transfer, er file.	Produ	ne license (th e recipient inf	e "sourc	e n file

Figure 6

Remote Update System (RUS) named Transfer WellCAD License in the Windows Start menu

Advanced administration

The Sentinel licensing technology used provides a helpful Admin Control Center (ACC) that can be used for configuring, monitoring, and debugging the licensing. The ACC is accessible on both the network server, and the client machines. By default, it is only accessible locally.

To access the Sentinel ACC :

- · Open a web browser.
- Navigate to http://localhost:1947

The navigation bar on the left of the ACC (Figure 7) provides useful administration functionality, such as:

- an overview of the installed licenses (Sentinel Keys),
- a list of all local and remote sessions (Sessions),
- a portal to configure basic and advanced settings (Configuration).

Please click on the Help icon in the upper right corner of the ACC for comprehensive documentation on the functionality available.



Sentinel Admin Control Center						
	Admin Control Center Help					
Sentinel Keys	Welcome to the Admin Control Center. This application enables you to manage access to software licenses and Features, to control delachable licenses, to control sessions, and to diagnose problems.					
Products	Note: You can select the language in which Admin Control Center is displayed from the bottom of the Options pane. > The Admin Control Center enables you to monitor the following:					
Features	 All the Sentinel protection keys that are currently available on the network server, including their identity, type, and location The number of users currently logged in to a protection key, and the maximum number of users allowed to be simultaneously logged into that specific key 					
Sessions	The Features to which each protection key allows access, and any restrictions that apply to the Feature The users who are currently logged into a specific protection key, including detailed login information					
Update/Attach	Note: SL Usenhode keys are only displayed for the local (Windows) machine. SL Usenhode keys are not displayed when the computation parameter Do Not Load haspitimizers is elected. > You can perform actions, such as:					
Access Log	 Detaching a license from the network and attaching it to your machine or a different recipient machine Cancelling a detachable license on a key that is visible in Admin Control Center 					
Configuration	 You can implement and manage cloud licensing. You can make basic configuration changes including. 					
Diagnostics	 Setting the display refresh time Configuring access parmissions from a client machine to a remote server, and configuring a server to allow it to be remotely Defining values for Production will detachable locarese 					
	> The Diagnostics page enables you to view system information related to the current Sentinel License Manager, and to generate reports.					
	Related Topics Security Considerations Cloud Learning Security Considerations Security Considerations Security Products Products Features Features					

Figure 7 Sentinel Admin Control Center

Troubleshooting and tips

Internet connectivity

If you cannot activate or upgrade a network license on the network server, it could be due to connectivity issues between your server and ems.alt.lu. To test connectivity, please open a command prompt and use curl to simulate an activation request: curl --request POST --url https://ems.alt.lu/ems/v82/ws/loginByProductKey.ws?productKey=4276a5c5-98f3-4b09-9049-2f3653fdc56c

If you have a connection, you should receive a response of:

Login for this product key has been restricted. Contact the system administrator for assistance.

If you don't receive this response, it is likely that your firewall or router is interfering with connections to ems.alt.lu.

Invalid licenses

If your client machine reports "No valid license could be found", there are a few possible problems that can be debugged in the following sections

Expired license

On the server machine, navigate to http://localhost:1947/_int_/features.html. If your license has expired, it will be indicated in the "Restrictions" column. Please try updating your license if you believe it has expired erroneously.

Cloned license

Sentinel licensing has sensitive clone detection to protect against license server duplication. In the case where this has been triggered, the license will be marked as "Cloned" in red text at http://localhost:1947/_int_/devices.html on the server machine. If this is the case, please generate a C2V file by clicking the "C2V" button to the right of the cloned license (Figure 8) and email it to support@alt.lu.



Activation code reuse

If, upon activation, you receive an error prompt stating the activation code is disabled, it means the activation code was already used. Activation codes are one time use. Please verify with your colleagues that the activation code you were provided has not been used elsewhere (including accidentally on a client machine).

If the license was activated on another machine, please follow the section on rehosting a license to move it to the server machine.

Restricting license access

Sentinel provides a powerful way to restrict which users can access which licenses and products. To configure this, navigate to http://localhost:1947/_int_/config_users.html on the server machine and populate the user restrictions access list.

Comprehensive documentation on the rule syntax and how they are applied can be found at http://localhost:1947/_int_/ACC_help_config_users.html

Installing more licenses on a client machine

If a client machine is already utilising a network license, it will not display the license setup dialog when WellCAD first starts. To access this dialog and allow installation of node locked licenses on a client machine:

- Open WellCAD
- · Click Help, then About WellCAD
- Click the *Configure* button
- Enter

Specifying a license server on a client machine

Although license access should generally be configured on the server side, it is also possible to specify which license server is used when WellCAD starts on the client machine. To do this:

- Navigate to http://localhost:1947/_int_/config_to.html on the client machine
- Uncheck Broadcast Search for Remote Licenses
- In the Remote License Search Parameters box, append the name of the license server you'd like to use

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