



INtime[®] SDK Licensing
with Network License Server
Procedure

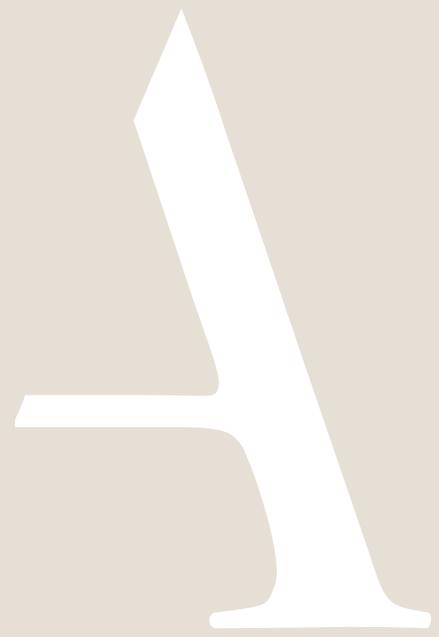




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1. Installing the Sentinel* RMS License Manager

The following instructions describe how to configure and maintain the network license server. INtime SDK network licenses utilize the Sentinel* RMS License Manager to manage the INtime software development kit (SDK) and distribution licenses. The INtime Network License Server & Tools contains the tools to manage those licenses. These files are available on the [My Downloads](#) page on the TenAsys.com website.

Note: This link is only visible to customers that have purchased an INtime SDK Network License.

Download the **INtime Network License Server & Tools**

View the **INtime Network License Server Procedure**

The license server must be version 9.4 for INtime 6.3.18220.1 and later.

Use [The Server Administration Utility](#) to find the current version.

When you ship final product, you must enter into a redistribution agreement with TenAsys Corporation. The redistribution license management process is different than that used for development purposes. This is necessary to support your operations staff and manufacturing systems. Please contact TenAsys sales (sales@tenasys.com) when you are ready to begin this process.

1.1. Server System Requirements

The Sentinel RMS License Manager version 9.4 requires Microsoft* Windows* 7, Windows 8.1, Windows 10, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, or Windows Server 2016 at a minimum. It is recommended that the server has at least 256 MB system memory and at least a 550 MHz or faster processor. Servers with numeric host names are not supported. The License Manager uses port number 5093 and 5099. Make sure these ports are not blocked by a firewall. A rule will automatically be added to the Windows firewall to allow the server access to the network. One open USB port is needed on the network license server. The Network License Server does not need an INtime installation.

If a VM is used for a license server, the USB port must be assigned to that VM.

*Other trademarks and brand names are the property of their respective owners.

1.2. Installing the License Server

Run the **setup.exe** program in the **Server** directory of the INtime Network License Server & Tools download to install the Network License Server.

Setup.exe will install the license server in the default path ("C:\Program Files\Common Files\SafeNet Sentinel\Sentinel RMS License Manager\"). The driver for the USB/CID hardware key will also be installed. The "Sentinel RMS License Manager" service will be started following a successful installation.



After the installation is complete, the USB/CID hardware key must be installed in an open USB port on the network license server.



Figure 1-1 – SDK USB/CID purple key

1.3. The Server Administration Utility

Open an explorer window and browse to the INtime Network License Server & Tools download. The download includes the utilities needed to maintain and use the networked licenses.

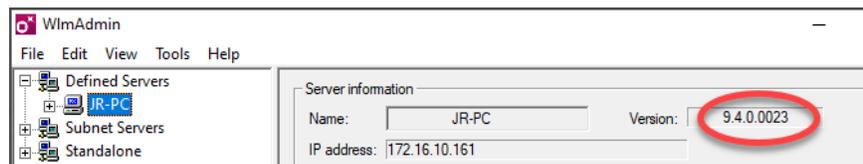
WlmAdmin.exe

Use WlmAdmin to install the network license codes. WlmAdmin can be executed on any host on the local network. It does not need to be executed on the Network License Server host. The license file is available from the My Support Agreements page on the TenAsys.com website.

In addition to installing licenses on the server, **WlmAdmin.exe** allows the viewing of all network license servers on a network segment, the licenses installed on those servers, and the users of those licenses.

Run **WlmAdmin.exe**. A list of servers is on the left containing three network icons. Expand the icon labeled "Subnet Servers" and locate the IP address or name of the network license server. If the network license server is not found on the Subnet, use the Edit menu to add the network license server to the Defined Server List.

The server version is displayed in the upper right under "Server information".





1.4. Installing the License File

The License Strings can be downloaded from the [My Account](#) page. There are two License Strings required: one for Development and one for Runtime. Both are INtime version dependent.

Use the “Download License” to save the License Strings.

Network Development Kit USB/CID	Client Type	Seats	License
9BC2-DSY21526JCB	INtime 7 Runtime	6	Download License
9BC2-DSY21526JCB	INtime 7 Development	6	Download License
9BC2-DSY21526JCB	INtime 6 Runtime	6	Download License
9BC2-DSY21526JCB	INtime 6 Development	6	Download License

Support End Date: December 31, 2023 (expires in 59 days)

Figure 1-2 – My Account

Start the WlmAdmin tool:

Right-click on the license server's name. A drop-down menu will be presented. Select the menu item, **Add Feature ->From a File ->To Server and Its File**. **NOTE: The hardware key must be installed on the network license sever to add the license.**

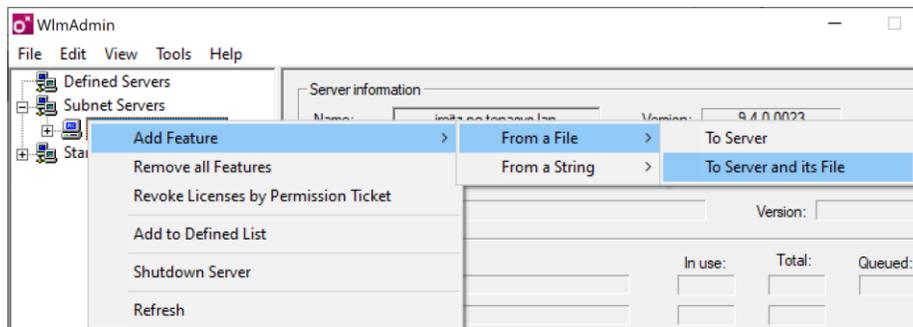


Figure 1-3 – Add Feature

Use the prompt to browse to the license file. The license file has been provided electronically and is also available on the My Support Agreements page on the TenAsys.com website. Select the file then **Open**. WlmAdmin opens a confirmation pop-up notice.

The network license server can be expanded to see the features. INtime SDKs have two features: **INtime_TRGL** with information about the target or execution licenses; and **INtime_DEVL**, with information about the development licenses used by Visual Studio debug tools.

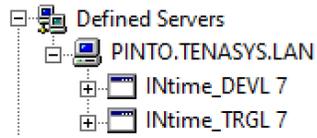


Figure 1-4 – License Server Tree

(NOTE: Version information in the images may not match your INtime version)



1.5. Configure the Server's Logfile

Logging license transactions is enabled with the LSERVOPTS environment variable. The license server does not log by default. Enable and control the logging process with this system variable. In Windows 2000/2003/XP, environment variables are set using the "Control Panel\System|Advanced|Environment Variables" dialog box. Administrator privileges are needed to change the system environment variables. Each environment variable should be added as a "System Variable." System environment variables are read when the computer boots.

The following table highlights the arguments that can be added to the LSERVOPTS system variable.

Argument	Description
-l "log-file-path-and-name"	To keep a log file of network license transactions. The full path and filename of the log file is specified by this argument. To log to the default server installation directory use "%ProgramFiles%\Common Files\SafeNet Sentinel\Sentinel LM Server\WinNT\Name.log" as the path and filename with the -l argument.
-z log-file-size	The default log file size is 1 MB. When the log reaches this limit, a backup is created, and a new log file is begun. The argument string '-z 100' sets the maximum log file size to 100 bytes. '-z 100k' will limit the log file size to 100 kilobytes. Use '-z 100m' for a maximum log file size of 100 megabytes.
-com percent	If you have purchased a commuting network license package you may want to ensure that a minimum percentage of the licenses stay on the network (i.e., are not allowed to "commute"). If you have purchased 10 commuting licenses and would like to keep at least five from leaving the network, add '-com 50' to the environment variable.

1.6. Viewing a License Log File

The license log file contains non-printable characters. To read the output convert this into a comma separated text file. In the INtime Network License Server & Tools download is a program named "**Isusage.exe**." This command-line program converts the license log file to a CSV text file. This program requires the Isapiw32.dll located in the same folder.

The command format is "Isusage -l [log-file-path-and-name] -c [output-text-file-name]."

The output file contains a list of records with the following format: name of the license, date and time of checkout, user name that checked out the license token, and the machine that checked out the license.

A license log file will only be generated if the LSERVOPTS environment variable is present.



2. INtime SDK installation

INtime SDK installation consists of installing the SDK. The instructions are performed on two platforms, which may be the same, one with an Internet connection  to the TenAsys.com web site, and the Development Host .

Step by SDK installation Example

- 2.1. On an internet connection:  **Login to [TenAsys.com](https://www.tenasys.com)** (Register for a personal account if you don't have an account.)

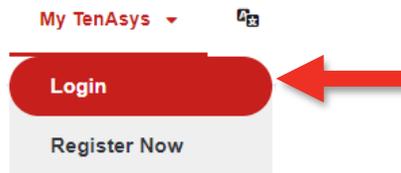


Figure 2-1 – Login or Register

- 2.2.  **Go to the [My Downloads](#) page.**

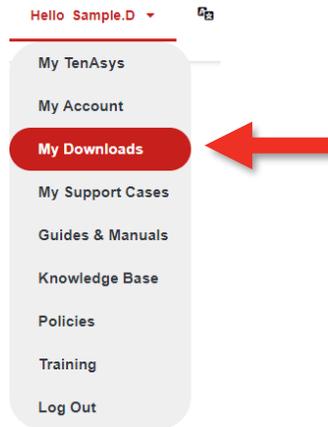


Figure 2-2 – selecting My Downloads

- 2.3.  **Download and  install INtime SDK** on the development host. (Since the INtime 6.4.20030.1 release, both the Network and USB/CID key SDKs used the same installer.)

SDK Downloads

> INtime for Windows 7.0 SDK Downloads

> Build 23310.1 - Release Date: Nov 10 2023

Release Notes

Description	Download Link
INtime 7.0 SDK - Build 23310.1	intime70-23310-1full_installer.exe

Figure 2-3 – My Downloads



- 2.4.  Enter the IP address or Fully Qualified Domain Name for the Network License server when prompted.

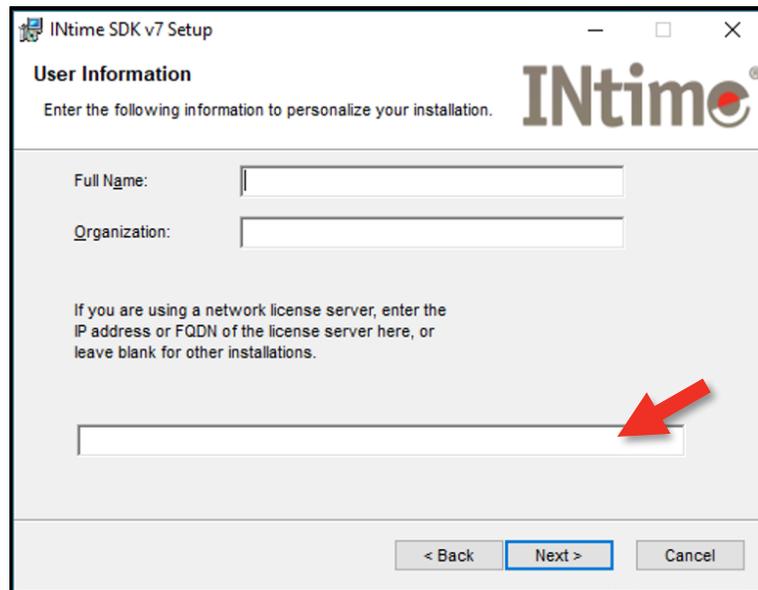


Figure 2-4 – Installation prompt for IP or FQDN

- 2.5.  If there is a change of the Network License Server, or if the IP address or FQDN is not entered during the SDK installation, the LSHOST system variable can be entered or changed. Do this in Settings > About => Advanced system settings => Environment Variables...
This change will not take effect until the Development Host is rebooted.

The LSHOST environment variable is used on the Development Host. It directs INtime to one or more Network License Servers. When LSHOST is not set then a broadcast for any Network License Manager Server is done. When the variable is set, INtime will send directed calls to the Network License Servers that are in the LSHOST list along with a broadcast to the network. INtime will traverse the list of responding Network License Servers beginning at the first Network License Server in the list and moving down the list. The wait for the Network License Server response time when LSHOST is set is the same as the broadcast interval. In the LSHOST list, you must separate the Network License Server host names with a tilde (~). For example, use the following command:

```
SET LSHOST=SERVER1~SERVER2
```

To turn off the search for a Network License Server for testing a local license, set the environment variable LSFORCEHOST to NO-NET, or unplug from the network.

Please use the [INtime SDK Licensing with USB/CID key Procedure sections on:](#)

- ***Distribution Host Trial License installation.***



3. Using the Commuting License Feature

Commuting licenses are an optional feature of the network license.

The commuting tools must be run with administrator privileges when UAC is enabled on Windows Vista or later.

3.1. Checking Out a Commuting License from a Local Location

To use a license while disconnected from the network license server (for up to 30 days) copy "wcommute.exe" and "Isapiw32.dll" from the INtime Network License Server & Tools download to the host machine that will be disconnected. These utilities are in the Commuting directory. Before disconnecting from the network, run this utility to obtain a commuter license authorization from the network license server.

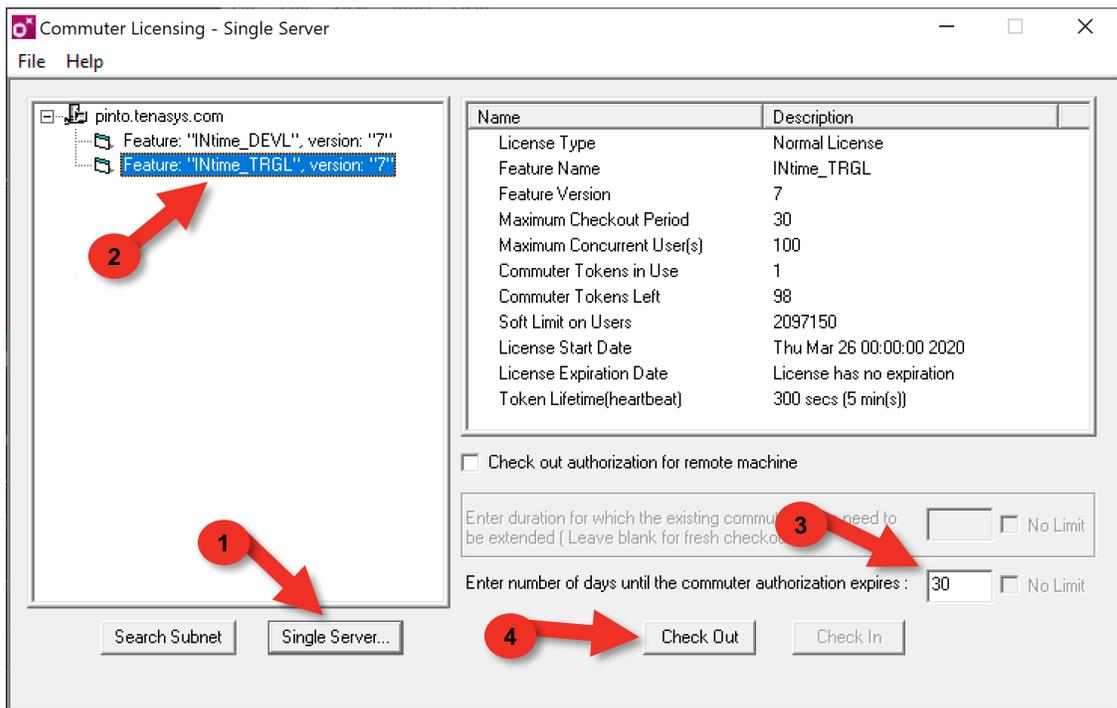


Figure 3-1 – Commuter License check out

- 1) Click **Single Server...** and type the IP address or the Fully Qualified Domain Name of the license server. A list of licenses available on that server will be presented, and details about the selected license.
- 2) Select **INtime_TRGL** feature listed underneath the server specified in the previous step to checkout an INtime target or execution license.



3) Be sure that the check box **Check out authorization for remote machine** is **NOT** checked and that **Enter number of days until the commuter authorization expires:** is set to 30 or some other appropriate number of days.

4) Click **Check Out**. Following a successful checkout, a check mark appears next to the name of the checked-out license.



Figure 3-2 – License checked out indicator

If debugging with Visual Studio is desired, select **INtime_DEVL** feature from the list and repeat the process to checkout an INtime development license. After both licenses have been checked out, disconnect from the network license server and use the licenses for up to 30 days.

Check the license back in while connected to the license server when the user no longer needs to operate disconnected from the network or check the license out again to extend the period.



3.2. Checking Out a Commuting License from a Remote Location

A network license can be checked out without being connected to the network. This process requires the help of a colleague who is connected to the licensed network (the "network-local colleague"). This is a commuting license for INtime software on a remote host machine that is disconnected from the licensed network and cannot be connected even temporarily.

Avoid using WRCommute if a temporary connection can be made to the license server over the Internet to use WCommute. See 3.1
 If WRCommute must be used, test the procedure using a single day expiration first, then extend the license later. Once a remote location license is checked out it **CANNOT** be recovered.

Install "WRcommute.exe" and "isapiw32.dll" from the Commuting directory in the INtime Network License Server & Tools download on the remote machine.

Run WRcommute.exe on the remote machine.

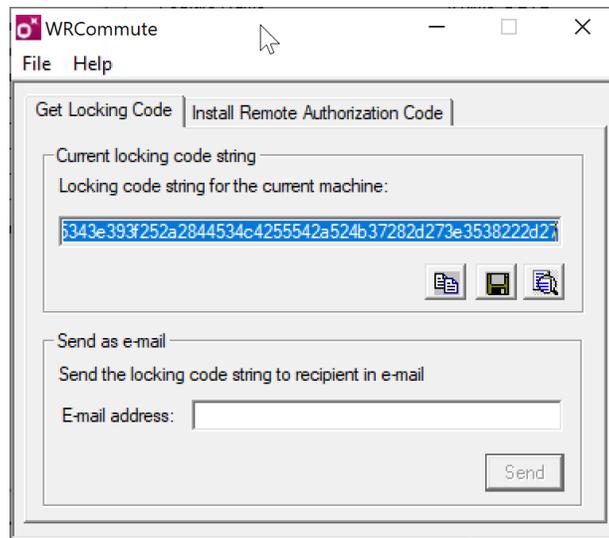


Figure 3-3 – Remote host locking code

Select the tab **Get Locking Code** on the dialog window. This tab generates a Locking Code string that the network-local colleague will supply to the license server to check out a license for the remote user's machine. Email or copy the Locking Code to the network-local colleague.

Install "Wcommute.exe" and "isapiw32.dll" from the Commuting directory in the INtime Network License Server & Tools download on the local machine. The network-local colleague must run Wcommute.exe (not WRcommute.exe) on the local network:

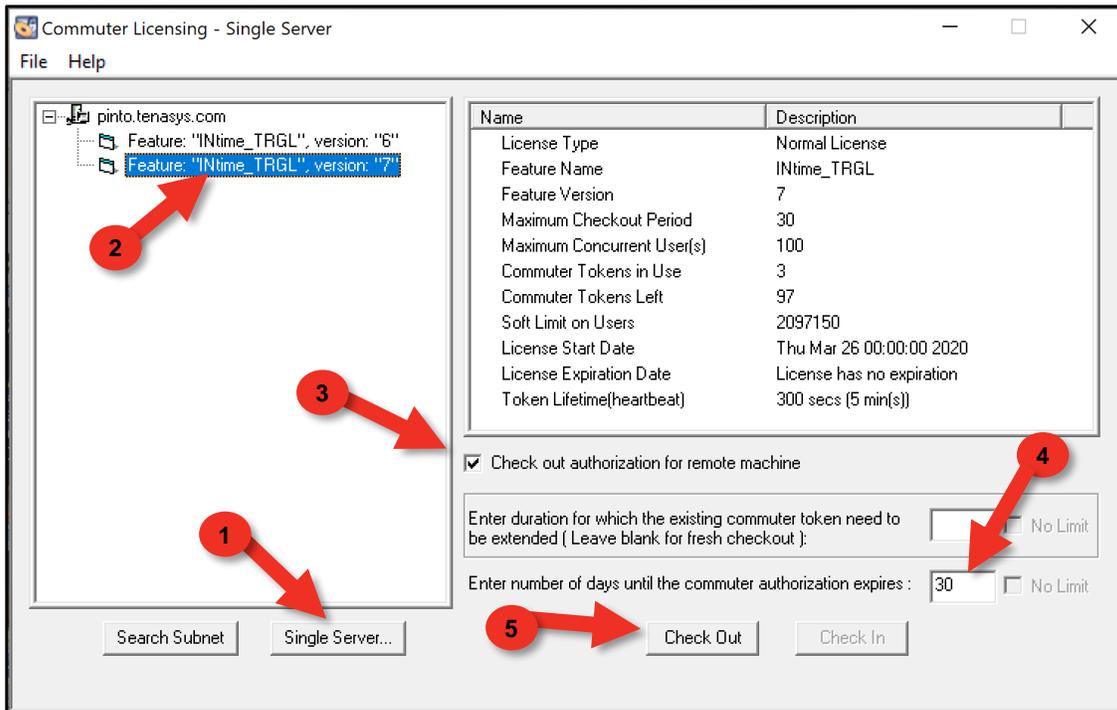


Figure 3-4 – Commuter License check out

- 1) Click **Single Server...** and type the IP address or Fully Qualified Domain Name of the license server. A list of licenses available on that server will be presented, and details about the selected license.
- 2) Select **INtime_TRGL** feature listed underneath the server specified in the previous step to checkout an INtime target or execution license.
- 3) Be sure that the box **Check out authorization for remote machine IS** checked.
- 4) Enter the number of days before expiration of the commuter license. Licenses checked out with WRcommute cannot be checked back in. The license is dedicated to the remote host until it expires.

Because licenses checked out by this process **CANNOT** be recovered, verify the process using a single day before committing and potentially losing a license for 30 days. The period can always be extended after verifying that the process works for a single day.

- 5) Click **Check Out**.

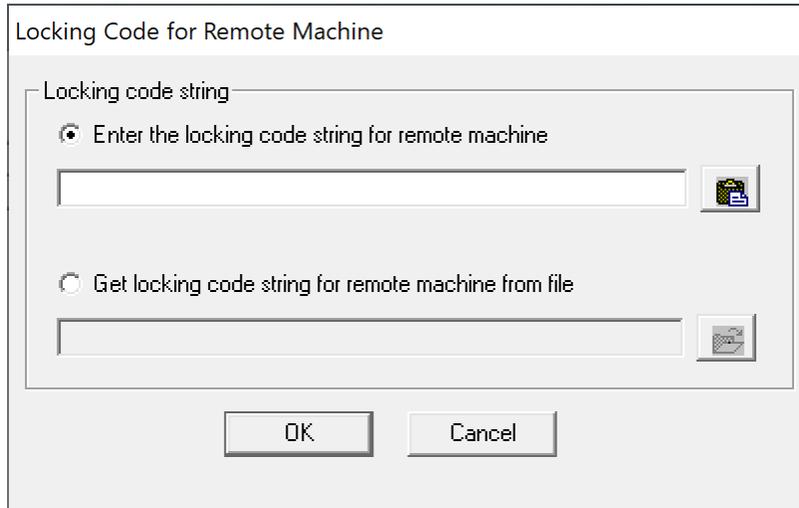


Figure 3-5 – Locking Code entry

- 🌐 Paste the Locking Code or open the file with the Locking Code and click **OK**.

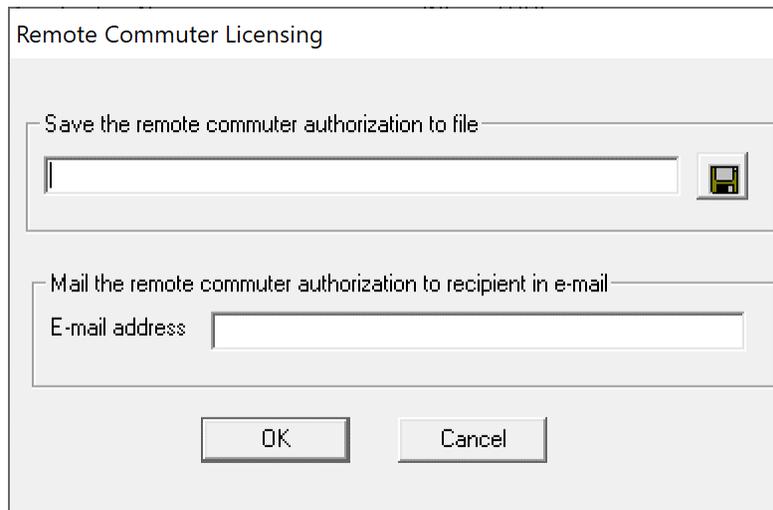


Figure 3-6 – Commuter License Authorization Code

- 🌐 Save the Authorization Code to a file or send it by email. If debugging with Visual Studio is desired, select **INtime_DEVL** feature from the list and repeat the process to checkout an INtime development license.

- 💻 On the remote machine, in WRcommute, select the Install Remote Authorization Code tab.

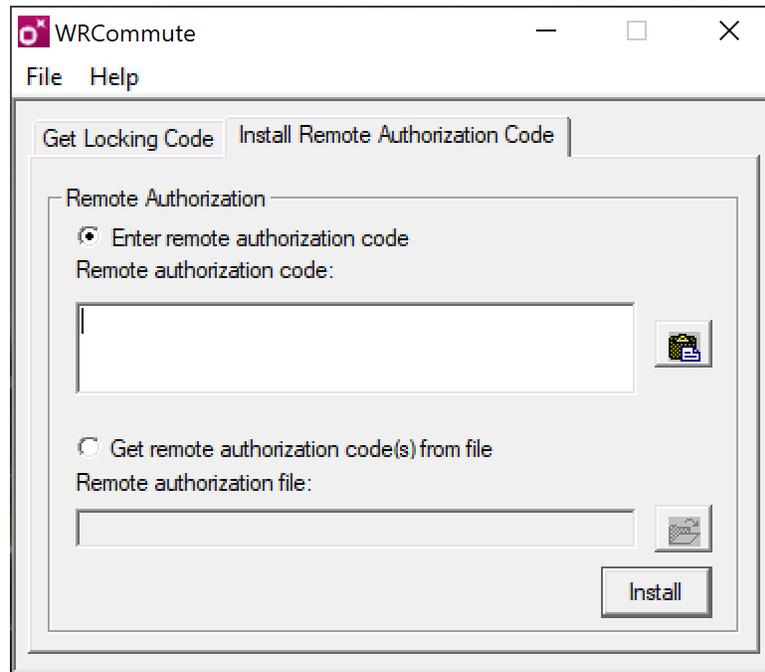


Figure 3-7 – Install Remote Authorization Code

-  If debugging with Visual Studio is desired, install the **INtime_DEVL** Authorization Code.
-  Use the WlmAdmin utility on the remote machine to verify the installation of the license. Commuter licenses are listed under Standalone and Commuter.

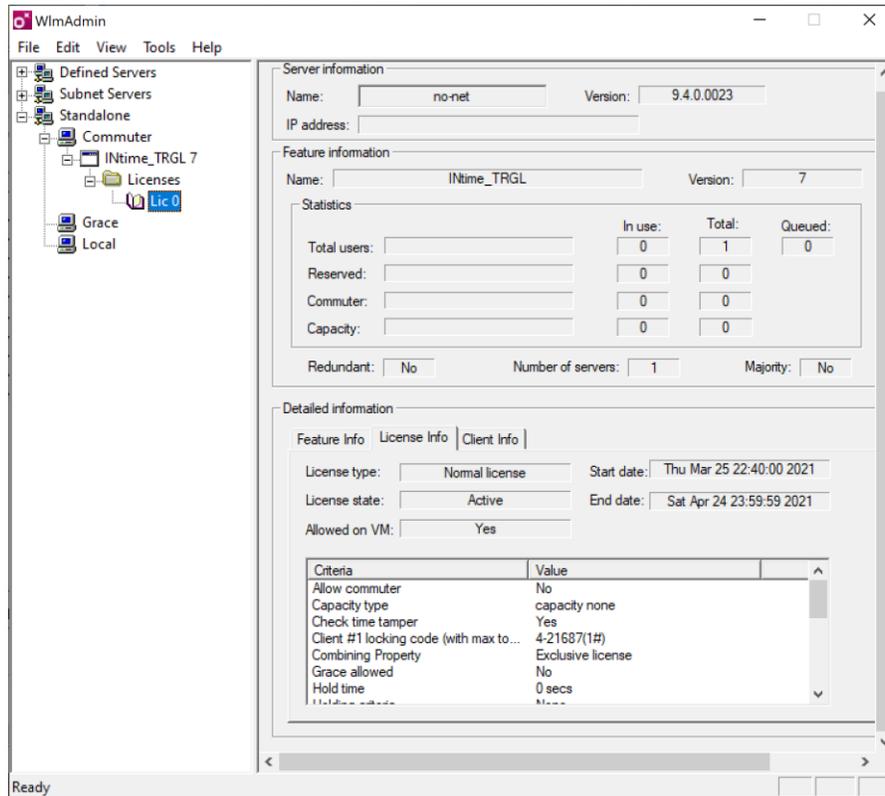


Figure 3-8 – License checked out indication

The commuting authorization is good for a maximum of 30 days (or whatever time frame was specified when the authorization file was generated by the network-local colleague). It is possible to extend an already checked out license token using WCommuter with **Enter duration for which the existing commuter token need to be extended:** field and the same Locking Code to generate a new Authorization Code. Install the new Authorization Code with WRCommuter on the remote machine.

License tokens checked out for a remote machine CANNOT be checked back in! A license that has been checked out remotely will not be available again on the network until the remote authorization code has timed out. In general, if you need to use a network license remotely you should check it out directly from the license server (while you are resident on the network) so that you can check the license back in when you have finished using it remotely.