

Software Installation & Licensing Guide

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1 Application Installation

1.1 System requirements

Before installing the software, please make sure that your computer meets the minimum system requirements as shown in the table below:

| Component | Requirement |
|------------------|---|
| Processor | Intel, AMD or compatible processor (i5 or better recommended) |
| Operating System | Windows: 8 or newer |
| Hard Drive Space | Minimum 200 MB |
| System RAM | Minimum 4 GB |
| Other Software | Software for viewing PDF documentation |

Note that the use of emulated platforms (Virtual Machines) is not supported by default. Licenses enabled for use with Virtual Machines can be arranged upon request. Please contact licensing@limitstate.com or call +44 (0) 114 224 2240 for more information.

As with most engineering software applications, the software will benefit from running on a PC with the fastest possible processor and as much RAM as possible. You will also benefit from using a large display with a high resolution. It is recommended to have the monitor display at a resolution of at least 1920 x 1080 pixels.

While you can run the software with the requirements listed in the table above, we recommend that you run the software on a PC with a better specification.

1.2 Windows installation from a downloaded file

Locate the downloaded the software installation file, double-click the icon and follow the on-screen instructions. By default, the software* will install itself to:

```
C:\Program Files\LimitState\<PROG_NAME>
```

Where **<PROG_NAME>** is the name of the application. You may specify a different path if you wish.

*64 bit version assumed. A 32 bit installation will be located in "Program Files (x86)".



Throughout this document the software name will be referred to as **<PROG_NAME>** and the path to the installation folder as **[PROG_DIR]**

i.e. by default, **[PROG_DIR] = C:\Program Files\LimitState\<PROG_NAME>**

If you specify a different path during installation, **[PROG_DIR]** will change accordingly.

1.3 Licensing the software

After you have installed the software you will need a license to run the software (whether you are using the software in 'trial', 'full' or 'beta' modes). Further details are given in the following sections of this guide.

1.4 Starting the software

You can start the software by navigating to **Start > All Programs > <PROG_NAME>** and clicking on the program icon. Alternatively, you can double click on a data file (e.g. .geo, slab, or .ring).

1.5 Uninstalling the software

To remove the software from a computer running Windows, use the method described below:

1. From the desktop, click on **Start** (or press the Windows button on the keyboard)
2. Type **Add**
3. Choose **Add or remove programs**
4. In the **Apps & features** list, scroll and select **<PROG_NAME>**
5. Click on the **Uninstall** button
6. Follow the on-screen prompts to remove the software from your computer

1.6 Support

Should you encounter any difficulties when attempting to install or license your software, a number of solutions to potential problems are provided on our support portal:

<https://support.limitstate.com>, Alternatively please contact our support team on support@limitstate.com or call +44 (0) 114 224 2240 during UK business hours.

2 Licensing

2.1 License types

Three license types are available:

2.1.1 Node locked

A node locked license allows the software to run on one specified PC and cannot be transferred to a different machine.

2.1.2 USB (dongle) locked

A USB dongle allows the software to run on any PC where as long as the dongle and associated license are present.

2.1.3 Network

Network licenses use a software program (license server) to allocate and retrieve one or more licenses to PCs on a named network.

2.2 Activation keys

Except in the case of USB dongle licenses, users will generally be issued with a 19 digit number (or 'activation key') that is used by a LimitState internet activation server to generate a bespoke license file for your PC, which then allows the software to run.

Typically an activation key can be used to generate only one license file (i.e. so that an activation key cannot be used to activate the software on a second PC). Both Node Locked and Network licenses are generally distributed in this way.

An activation key looks like this (note that this is not a valid key):

1234-5678-9012-3456/000

If the PC you wish to run the software on does not have access to the internet, or if your network administrator prevents programs from accessing the internet, you can alternatively activate your software via a webpage (see Section 5).

Users can also obtain a USB dongle. This allows any PC to run the software as long as the dongle device is attached and the corresponding license file is present. For instructions on installing a USB dongle on your PC, please see Section 3.

2.3 Getting started

When the software is run for the first time it will automatically display a startup licensing dialog. This dialog will also be displayed:

- If you request to change license from within the software
- If your license has expired
- If there is some other problem with the license that means it is not valid

The startup dialog differs between software.

2.3.1 The LimitState:GEO / LimitState:SLAB startup dialog

There are three options to choose from, as shown in Figure 1:

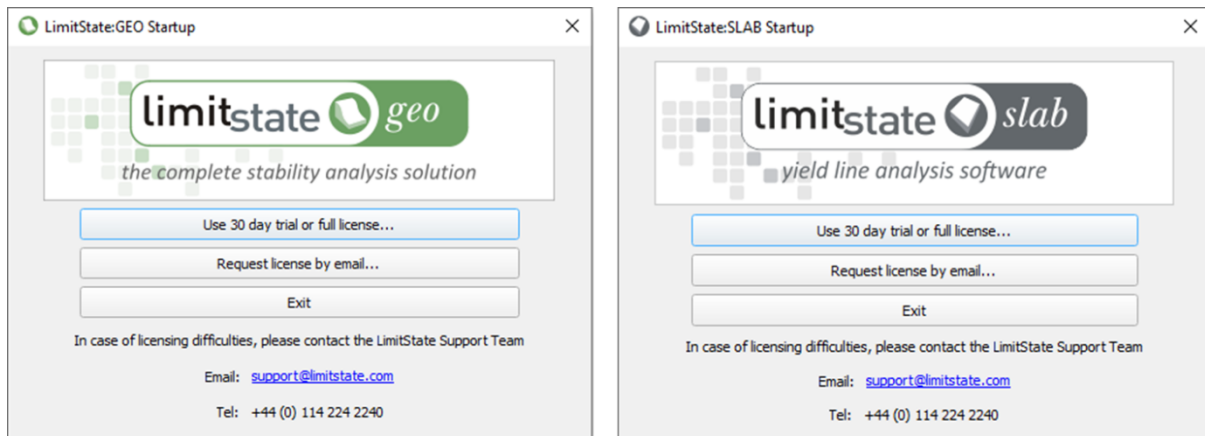


Figure 1 - LimitState:GEO and LimitState:SLAB Startup dialogs

2.3.1.1 Use 30 day trial or full license

Select this option if you wish to use in 30 day trial mode, or if you already have an activation key, license file or server for the software and wish to use it.

2.3.1.2 Request license by email

Selecting this option displays the types of license available, gives a link to an up-to-date pricing schedule and provides a link to send an enquiry e-mail to our sales team. This dialog also displays the 'hostid' of the machine, which may be required in order to generate a license.

Clicking on the e-mail link will automatically generate an e-mail to request a license. Instructions on what to do once you have received a license activation key are provided in the following sections.

2 - Licensing

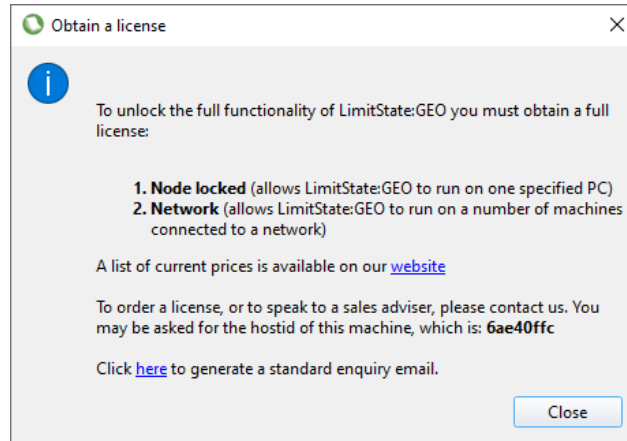


Figure 2 – The Obtain a license dialog

2.3.1.3 Exit

Select this option to exit the program.

2.3.1.4 Changing license

If you wish to change license at any time, you can return to the Startup dialog by starting the software and selecting **Help > License Information > Use Different License...** (For more information, see Section 2.4).

2.3.2 The LimitState:RING mode selector dialog

When LimitState:RING is run for the first time it will automatically display the **LimitState:RING Mode Selector** dialog. This dialog will also display if your license has expired, or if there is some other problem with your license. There are four options to choose from, as shown in Figure 3:

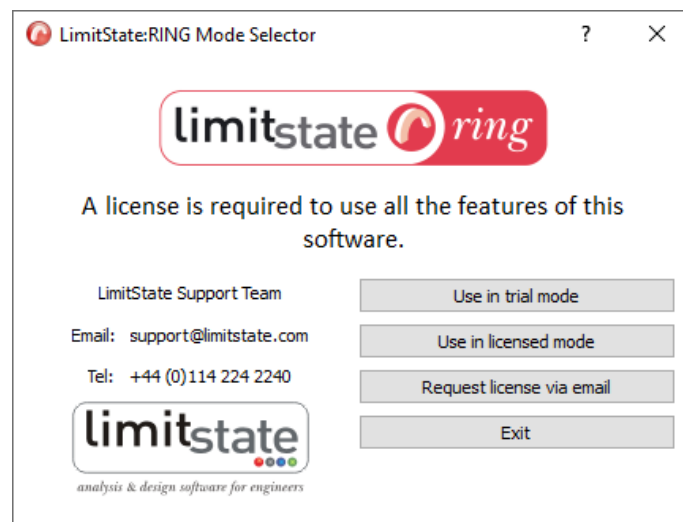


Figure 3 - The LimitState:RING Mode Selector dialog

2 - Licensing

2.3.2.1 *Use in trial mode*

Select this option if you wish to use LimitState:RING in free trial mode (where some functionality is disabled).

2.3.2.2 *Use in licensed mode*

Select this option if you already have an activation key or access to a license file or server for LimitState:RING and wish to use it.

2.3.2.3 *Request license by email*

Selecting this option displays the types of license available, gives a link to an up-to-date pricing schedule and provides a link to send an enquiry e-mail to our sales team.

Clicking on the e-mail link will automatically generate an e-mail to request a license. Instructions on what to do once you have received a license activation key are provided in the following sections.

2.3.2.4 *Exit*

Select this option to exit the program.

2.3.2.5 *Changing license*

If you wish to change license at any time, you can return to the Startup dialog by starting the software and selecting **Help > License Information > Use Different License...** (For more information, see Section 2.4).

2.3.3 The License Details dialog

On selecting to use the software in a licensed mode, a License Details dialog will appear (e.g. Figure 5) with three options:

1. Use an **Activation key**
2. Specify a **License file location**
3. Specify a **Network license server name**

2 - Licensing

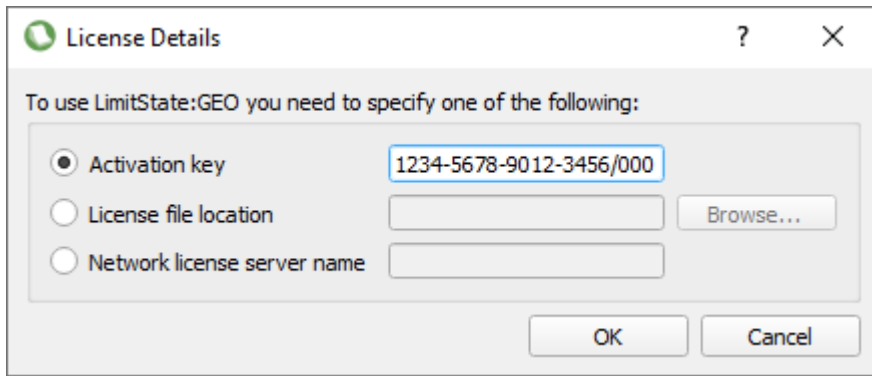


Figure 4 - The License Details dialog

These options are discussed in more detail in the following sections.

2.4 Activation keys



If you are activating a **Node Locked** license you *must* activate your license using the PC that you intend to use to run the software.

If you are using a **USB Dongle**, a license file will have been emailed to you and you do not need to activate it to use it (see Section 3).

If you are activating a **Network license** you *must* activate your license using the PC that you intend to use as the license server (you can also run the software on the license server PC).

Start the software in the normal way and wait for the **Startup** dialog to appear. To activate your software you must be connected to the internet.

1. Click on the **Use in licensed mode** button
2. Enter the 19 digit key into the **Activation key** field (Figure 4).
3. Click **OK**. If everything has worked correctly, a message will appear giving details of the type and expiry date of the license (the type can be 'trial', 'full' or 'beta', and governs which program features you will be able to access).
4. Finally, if you have activated a **Network license** you will be asked whether you wish to install and run the **RLM license server** software. As this software is necessary in order for the software to run, most users should simply select **Yes** (for detailed information on network licensing issues please refer to Section 4).

2.5 License file location

Licenses for LimitState software have the suffix “.lic”, but can be read using a standard text editor, such as MS Notepad. If you have a pre-existing license file that you wish to use, or if you wish to use the software with a USB dongle, you can enter the location of the license file by selecting the License file location option, clicking **Browse...** then navigating to the appropriate file. By default, activated license files are saved in the following location:

```
C:\Documents and Settings\\Application Data\LimitState\\license
```

A sample LimitState:RING license file is shown in Figure 5. In this case for a ‘demo’ license:

```
# License created by internet activation on Mon November 12 2016 at 10:59:15
LICENSE limitstate ring 3.99 31-dec-2020 uncounted hostid=a1b2c3d4
issued=17-dec-2020 type="demo" sig="60PG4580MJXTV9EH3V9R8V2URHXV
WA519MYDN1UP08A0UUKJT7V6QPX85RHBX6Y2YNNUS8WEC52G"
```

Figure 5 – An example of a license (.lic) file

Specifying a license file location is useful if for example you are not connected to the internet and you wish to switch the type license being used.

In this case:

1. Start the software as normal.
2. Go to **Help > License Information** and click **Use Different License...**
3. A dialog will appear that asks you to restart the application. Click **OK** to begin the shutdown process (saving your work if necessary).
4. Restart the software (ensuring that the USB dongle, if you are using one, is seated correctly).
5. When the **Startup** dialog reappears, click on the button to **Use in licensed mode**.
6. In the **License Details** dialog, click the **License file location** radio button and either enter the path to the file or click **Browse** to bring up an explorer dialog and locate the file this way.
7. Click **OK** to set the path to the license file.

Note that, if you are using a USB dongle:

- You will have been sent a license by email. If you do not have the file, please contact licensing@limitstate.com

3 - USB Dongles

- You should ensure that the dongle drivers have been installed and that the dongle is properly seated in your PC before specifying the license file location.
- If you attempt to specify the license location when the dongle is not present, you will obtain an error message that reads: “*Error checking out ring license. Wrong host for license (-4)*”. In this situation, click **OK**, replace the dongle and follow the steps above once more.

3 USB Dongles

A **Flexible** license requires a USB dongle (Figure 6) and an associated license file. A user in possession of both of these can use the software on any PC of their choice, provided the drivers for the USB dongle are present on the system. The USB dongle is a hardware key manufactured by Gemalto. A link to the most up-to-date drivers can be found at www.limitstate.com/dongles.



Figure 6 – A Gemalto Sentinel USB Dongle



Administrator rights are required on the target PC in order to install the USB dongle drivers.

These instructions should be followed on all PCs where you wish to use the USB dongle.

3.1 Step 1 - Request a license file

On receipt of your USB dongle, send an email to licensing@limitstate.com requesting a license.

3.2 Step 2 - Install the USB dongle drivers

1. Download and install the dongle drivers from the LimitState website: www.limitstate.com/dongles

4 - Network Licensing

If drivers for the dongle already exist on the system, but are out of date, a prompt to uninstall the previous ones will be displayed. Select **Yes** to uninstall the old drivers and continue with installation).

2. Insert the USB dongle into a spare USB port on your PC. After a few seconds the device should be recognized by the system and a light will illuminate on the device. You are now ready to use the USB dongle.

3.3 Step 3 - Locate the license file

1. With the USB dongle inserted, start the LimitState software. The Startup should appear. If it does not, and you are able to use the software normally, it is likely that the software is already using a different license. If this is the case, go to **Help > License Information > Use Different License...** (the software should now restart with the **Startup** dialog showing).
2. On the **Startup** dialog, select **Use in licensed mode**. You will then be presented with the **License Details** dialog.
3. Select **License file location** and click on the **Browse** button. Navigate to the location on your PC where the license file is saved, select the file and click **OK**. Clicking **OK** once more, in the **License Details** dialog, will cause the software to start in licensed mode.

4 Network Licensing

4.1 Installing the network license server



The network license server software is configured by default to **NOT run on virtual machines**. If you require a license to run in a virtual environment, please contact licensing@limitstate.com to discuss the available options.

When the **Network License Server** is installed, a troubleshooting document is also installed. To access it, go to **Start > All Programs > LimitState License Server > Network License Guide**.

The recommended way to install the network license server software on the server machine is to download and run the installation files from the LimitState website. This automatically installs and starts the software without the need to also install other end-user software on the server, thus keeping the footprint to a minimum.

The installation files can be obtained from www.limitstate.com/network-licensing

4 - Network Licensing

Alternatively, when you specify an activation key for a network license within a LimitState product, the software will provide you with the option of automatically installing and running the RLM network license server. In this case the license server is installed as a Windows Service, which means that the license server will automatically start whenever the PC is rebooted.

License server tasks can also be performed manually, and the license server can be started by running the rlm.exe file distributed with the software. Refer to Section 6 for details.

4.2 Administering the network license server

Once installed, the RLM license server can be controlled via an embedded web server that starts when the license server is started. To access the web server point your browser to:

Once installed, the RLM license server can be controlled via an embedded web server that starts when the license server is started. To access the web server point your browser to:

```
http://<SERVER_NAME>:5054
```

Where <SERVER_NAME> is the name of your license server. The intro screen of the RLM web server (shown in Figure 7) will then appear (if the screen does not appear, please use Task Manager or query the Services to check that the license server, rlm.exe, is running).

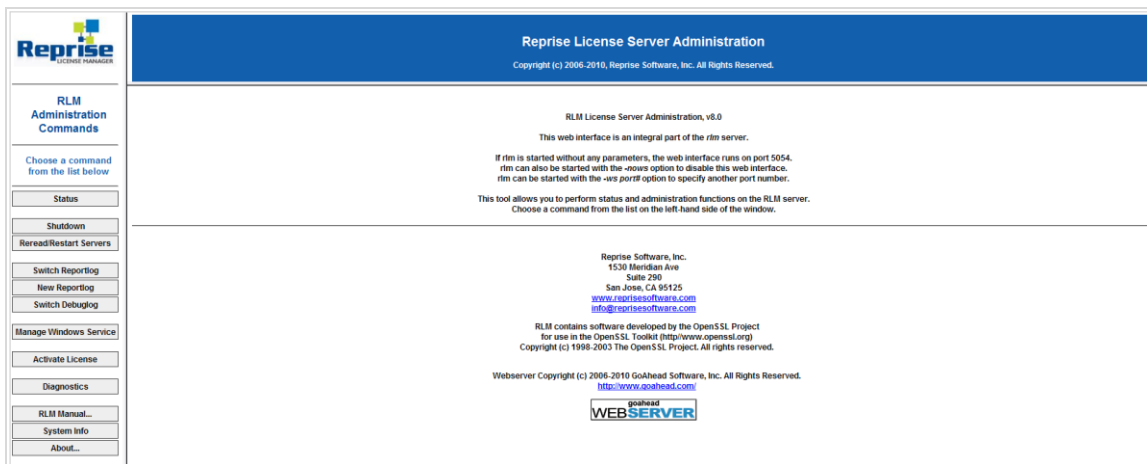


Figure 7 - The RLM Web Server Screen

The links on the left-hand side of the web interface can be used to administer the license(s) and investigate the potential causes of issues affecting their use. The most common features (license usage, debug log etc.) can be accessed from the **Status** link.

Detailed information regarding the use of the web server can be found in the RLM end user manual: www.reprisesoftware.com/RLM_License_Administration.pdf

4.3 Updating to a new license

From time to time you may need to update the license file being used by the network server, for example when your previous license file has expired or you have purchased additional licenses.

Presuming that you have been sent a license by email, you should:

1. Open the RLM web server in an internet browser (on the server, <http://localhost:5054>).
2. Click the **Shutdown** link in the left panel then click the **SHUT DOWN SERVER** button that appears.
3. Locate the license folder, generally this is:

```
C:\Program Files (x86)\LimitState\NetworkLicenseServer
```

4. **Move** the existing (old) license to a different location (optional).
5. **Save** the replacement (new) license file to the same location.
6. In the RLM web server, click the **Reread/Restart Servers** link in the left panel then click the **REREAD LICENSES** button.
7. Click the **Status** link in the left panel and ensure that **limitstate** ISV server is running.
8. Finally, you should **run the software** on a client PC and ensure that the new license has been picked up.

4.4 Checking the status of a server

To check that a server is functioning correctly, in the RLM web server select the **Status** link in the left hand panel - the status of all the installed license server services will be displayed along with the port numbers used.

To view more information about the LimitState server, click the **limitstate** button in the **Server Status** field for the **limitstate ISV**. The summary window will display information about the status of each license and whether it is in use.

Further information can be found by clicking the 'usage...' button in the **Show License Usage** field. This allows the systems administrator to monitor license usage.

4.5 Client configuration

The first step is to install the software on the client PC. For further instructions on this, please refer to Sections 1 and 2.

4.6 Advanced network license server functionality

For further information on the additional features available, please refer to the RLM End User Manual: www.reprisesoftware.com/RLM_License_Administration.pdf

5 Manually Activating a License via the Internet

Licenses can be activated manually by visiting www.limitstate.com/activate

Follow the instructions given on the webpage to activate your license. Then copy the license generated to a text file, saving this with a .lic extension to the appropriate directory, e.g.

```
%AppData%\LimitState\<<PROG_NAME>\license
```

6 Manual Administration of the Network License Server

As outlined, LimitState software network licensing uses components of the Reprise License Manager (RLM). Installation of the RLM software allows any PC to be set up as a local network license server.

In `[PROG_DIR]\license\tools`, you will find the following files:

- **rlm.exe** – the RLM license server (administers all RLM-based license servers on the local machine).
- **limitstate.exe** – the LimitState RLM-based license server (handles licenses for LimitState products).
- **VERSION.txt** – a text file containing version information for the RLM license server.

This simplest way of running the license server is as follows:

1. Copy the network licence file (.lic) generated by internet activation to `[PROG_DIR]\license\tools`.
(N.B. by default activated license files are saved to the path specified in Section 5)
2. Start the RLM license server by running **rlm.exe**

Alternatively, on Microsoft Windows servers, you may want to install and run the RLM server as a Windows Service. A Service can start automatically at boot time and remain running as long as the system is up, regardless of user logins and logouts.

Installing RLM as a service is carried out in a command window. Once installed as a service, RLM remains installed until it is explicitly deleted as a service. Installing RLM as a service does not start RLM; services are started via the Windows Services control panel, and at boot time. RLM is installed using the rlm program itself, with special arguments:

```
rlm -install_service -dlog [+]logfile [-service_name sname] <rlm runtime args>
```

Where:

- **logfile** is the pathname for the server debug log. This parameter is required. If preceded by the '+' character, the logfile will be added to, rather than created.
- **sname** is an optional name for the installed service. If not specified, **sname** defaults to "rlm". If **sname** contains embedded whitespace, it must be enclosed in double quotes.
- **<rlm runtime args>** are any other command line arguments to be passed to rlm when it is started.

Example:

```
rlm -install_service -service_name rlm -dlog
c:\licenses\xyz.lic.log -c c:\licenses\xyz.lic
```

This installs RLM as a Windows Service under the name `rlm`. When started via the Services control panel or at boot time, RLM will be passed the "`-c c:\licenses\xyz.lic`" args, and it will write the debuglog information to the file `c:\licenses\xyz.lic.log`

Installed RLM services are also deleted with the RLM program. Windows Services must be stopped via the service control panel before they can be deleted. Note that deleting a service deletes it from the Windows service database; it does not delete the RLM executable or associated license file(s):

```
rlm -delete_service [-service_name sname]
```

Where:

- **sname** is an optional name for the installed service. If not specified, **service_name** defaults to "rlm". If **service_name** contains embedded whitespace, it must be enclosed in double quotes ("").

Notes:

- It is desirable to use the "`-c <license file>`" command line argument with RLM when installed as a service. Use of environment variables with Windows services is undesirable, as the environment passed to started services is the one in effect at boot time.
- Because the Service Controller on Windows invokes services under a special user account in a special default directory, it is advisable to specify full file paths for the following:
 - The "`-c <license file>`" argument on the rlm command line

7 - Troubleshooting

- the path to the limitstate daemon in the license file
- in options file paths in the license file
- in debug log paths in the limitstate options file (if present)
- in report log paths in the limitstate options file (if present)
- for the “**-dlog debug_log**” argument on the command line

7 Troubleshooting

Should you experience any difficulties when setting up the server please refer initially to the RLM End User Manual:

www.reprisesoftware.com/RLM_License_Administration.pdf



You can also find the solutions to many commonly encountered problems on our support portal: <https://support.limitstate.com>

If you still have problems, or if you have special requirements, please contact our support team by email at support@limitstate.com or telephone +44 (0) 114 224 2240 during UK office hours.



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