



## ReadMe 03 September 2014

## Release Note

This ReadMe file describes the changes in the release of MOSES 7.10 V8i.  
 This release contains a range of new modelling tools to improve workflow.  
 This is the second release of MOSES using Bentley SELECT licensing.

### System Requirements:

- **Windows XP, 7, 8 or 8.1**
- **Note that this is the last release of MOSES that will run under Windows XP**

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## Installation

The default MOSES installation directory has changed and is now consistent with other Bentley applications. This is

C:\Program Files\Bentley\Engineering\MOSES 7.10 V8i

or for a 32bit versions of MOSES on a 64bit operating system:

C:\Program Files (x86)\Bentley\Engineering\MOSES 7.10 V8i

## Start Menu

MOSES start menu entries are now available under:

Start – All Programs – Bentley Engineering – MOSES 7.10 V8i

### **Side-by-side Installation**

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MOSES 7.10 installs side-by-side any previous installations of MOSES i.e. it does not overwrite or remove your previous version. Typically your previous installation will still be located at c:\ultra.

### **No Backup**

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Since the MOSES installer no longer overwrites the existing installation in C:\ultra, it no longer makes a backup of that directory to c:\ultra\_p. The c:\ultra directory will remain in place. You can uninstall it if you wish.

### **End User License Agreement**

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The MOSES End User License Agreement (EULA) has changed in this release, and is now the standard Bentley EULA. It can be found in the MOSES installation directory and is also reviewed and agreed to during installation.

### **Dongle Driver**

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The Sentinel driver is no longer installed by default. If you do not already have the driver installed, you can download the latest version from the SafeNet web site at:

<http://www.safenet-inc.com/support-downloads/sentinel-drivers/>

### **EPS Viewer**

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The GhostScript GSView EPS viewer is no longer included in the MOSES installer. If you wish to use it you can download from:

<http://www.ghostscript.com>

### **VIM Editor**

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The VIM editor is no longer installed with MOSES. A new editor has been developed specifically for use with MOSES, this is described in more detail below. Of course you may continue to use any text editor of your choice.

## New Products & Licensing

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This release no longer supports BAN files and requires a SELECT subscription.

If you are currently using the old Ultramarine licensing then you will need to convert over to a Bentley SELECT subscription. Under this subscription, MOSES is now licensed using 3 suites, each of which contain a range of modules. The modules included in each suite are listed in the table below.

Module	Suite		
	MOSES	MOSES Advanced	MOSES Enterprise
MOSES Basic	X	x	x
Strip Theory	X	x	x
Basic Connectors	X	x	x
3D Diffraction	X	x	x
Time Domain		x	x
Pipe & Rod Elements		x	x
Structural Solver		x	x
Jacket Launch			x
Generalized Degrees of Freedom			x
<b>New Modules for MOSES 7.10</b>			
MOSES Editor	X	x	x
MOSES Hull Modeler	X	x	x
MOSES Hull Mesher	X	x	x
MOSES Hull Stability	X	x	x
MOSES Hull Motions	X	x	x

As you run MOSES, it will automatically record license usage against a suite license appropriate for the functions required by the contents of your .cif file. If you do not own a license required, an error will be reported in the MOSES log.

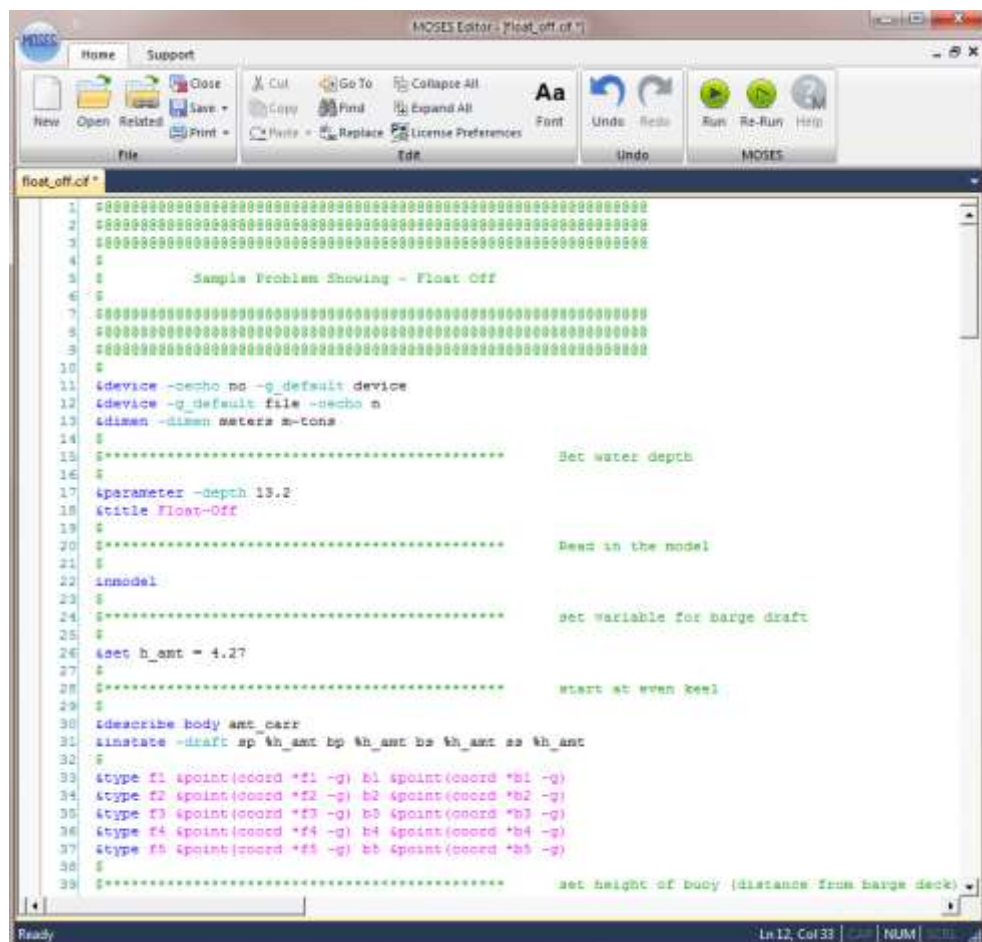
**IMPORTANT:** If you are new to Bentley SELECT licensing, you will want to review the [Appendix](#) at the end of this ReadMe file. MOSES uses trust licensing. This is the same licensing system used by all other Bentley applications. It provides a great deal of flexibility by not restricting local license usage and instead recording license use and periodically sending those usage logs to SELECTserver. For detailed information on these license changes and how you can manage license usage, see the [appendix](#) to this ReadMe file.

## New Modules for MOSES 7.10 V8i

### MOSES Editor

This is a new editor which greatly facilitates the editing of MOSES .cif and .dat files. Amongst many features it includes:

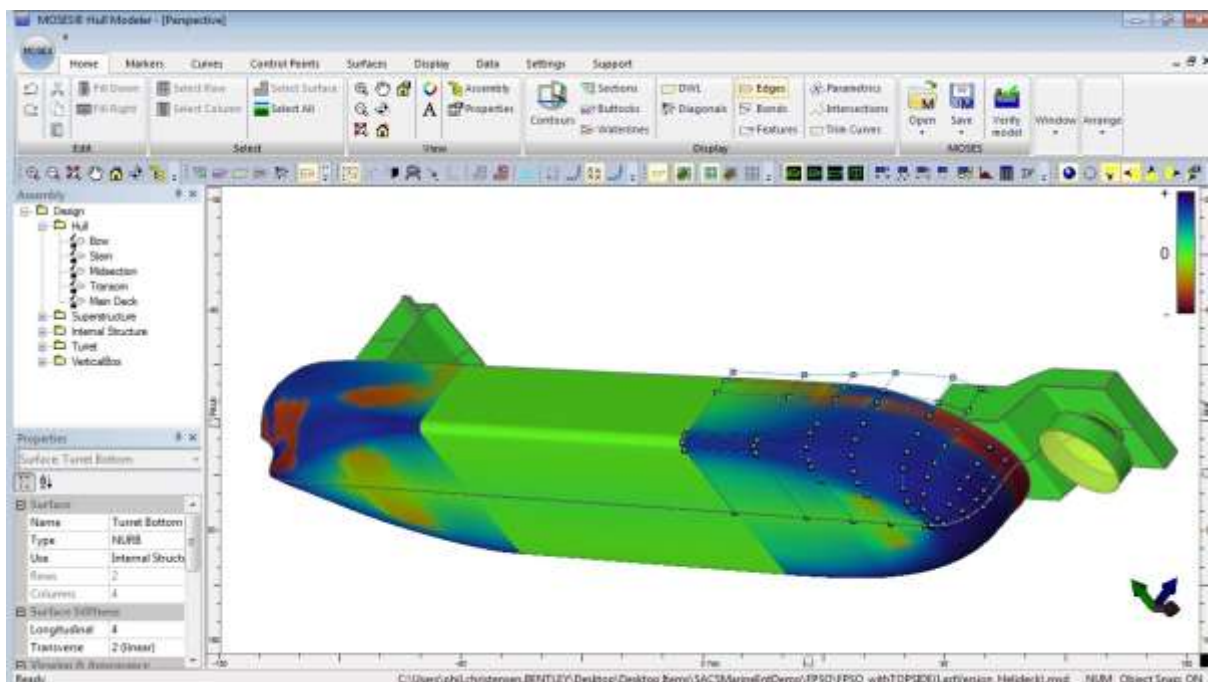
- Syntax highlighting
- The ability to automatically run and re-run MOSES with the current .cif file
- Context sensitive help
- Auto-complete when typing commands
- Open all related MOSES documents
- Set MOSES licensing level from within Editor
- Expand and collapse of blocks of text



## MOSES Hull Modeler

Hull Modeler provides an intuitive graphical user interface to define hull geometry for analysis in MOSES. NURB surfaces are used to model the vessel or structure which can then be meshed and saved in .dat format for analysis in MOSES. Because of the smooth surface definition provided by NURBS, the same model may be used to define analysis meshes of different densities. Models can either be generated from scratch or can be derived from any one of over 100 sample vessels which may be easily resized to the required vessel dimensions. Features include:

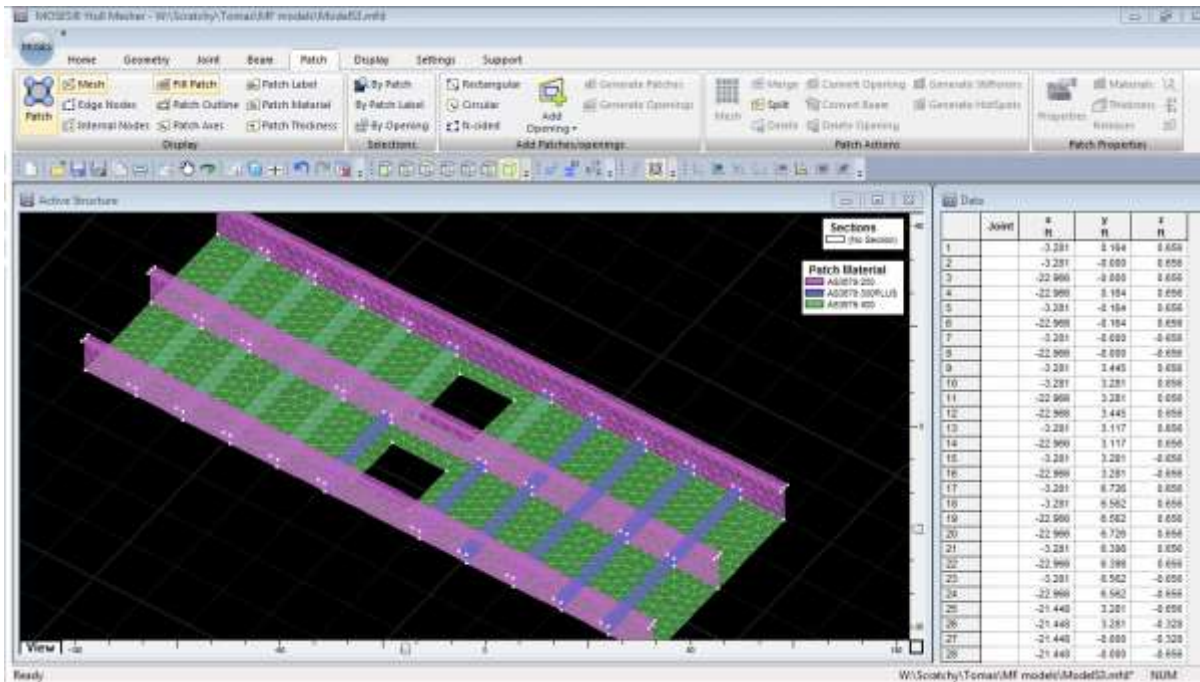
- GUI interface for the definition of NURB-surface-based vessel models.
- Over 100 sample vessels included.
- Export of MOSES analysis mesh at any desired mesh density.
- Direct saving of MOSES .dat files from NURB-surface-based mesh geometry for analysis in MOSES.



## MOSES Hull Mesher

Hull Mesher is used to generate structural models for analysis in MOSES. It provides a graphical interface for defining structural models comprising beam and plate elements. Features include:

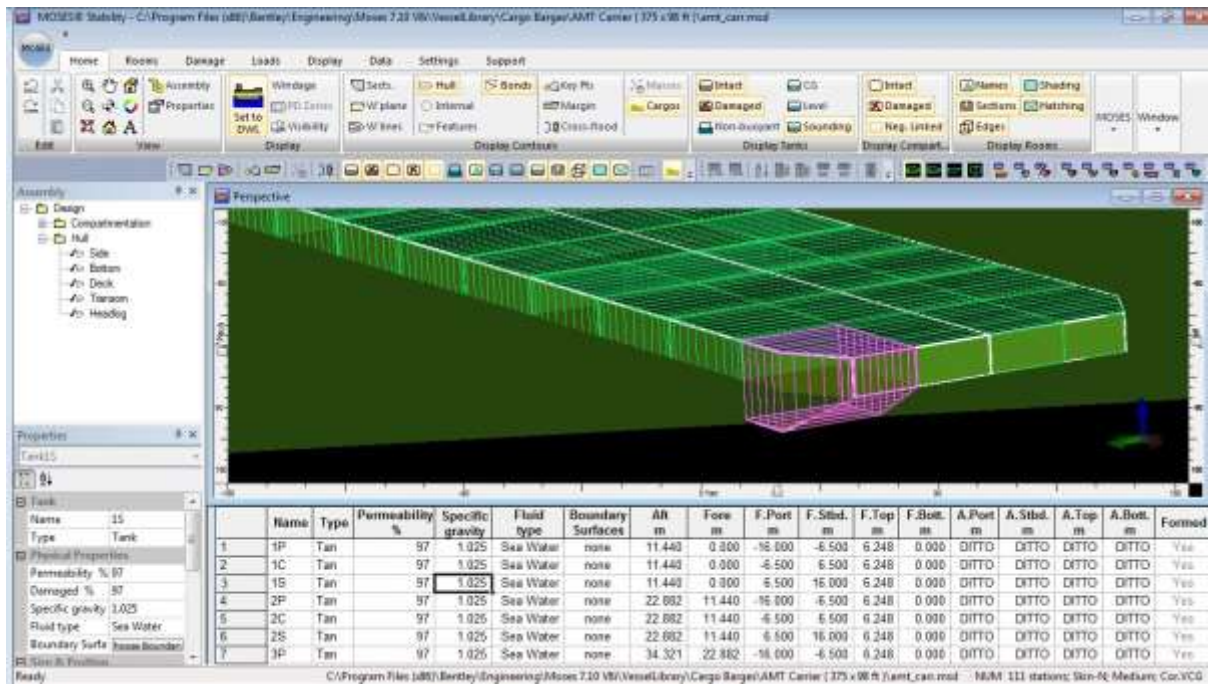
- GUI interface for the definition of beam and element structural models for analysis in MOSES.
- Comprehensive catalogue of structural beam shapes.
- Direct saving of MOSES .dat files for analysis in MOSES.
- Import of MOSES structural models for display and modification in the graphical environment.



## MOSES Stability

Stability extends the capabilities of Hull Modeler by providing a graphical interface for defining remaining details of the vessel. These include:

- **Compartments (tanks containing liquid cargo or water ballast, permanently flooded areas such as moon-pools, etc.) definition. Automatic calculation of compartment sections conforming to the exact NUR-surface hull geometry as defined in Hull Modeler.**
- **Definition of loadcase containing static weights as well as compartment loadings.**
- **Damage condition specification**
- **Export of MOSES .dat files defining compartment geometry, loadcases and damage cases which may then be used in MOSES.**

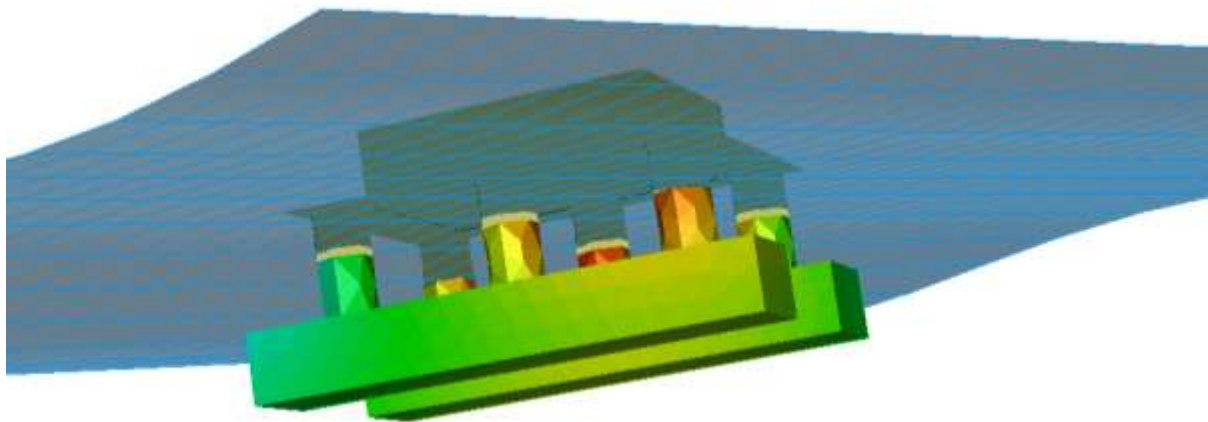


## **MOSES Motions**

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Motions facilitates vessel motions analysis and post processing using the MOSES solvers (radiation diffraction boundary element method). Features include:

- **Automatic calculation of vessel strips at any draught and trim using the precise NURBS surface vessel geometry for strip theory analysis in MOSES.**
- **Automatic mesh generation at any draught and trim using the precise NURBS surface vessel geometry for strip theory analysis in MOSES.**
- **Integrated analysis of vessel motions using the MOSES solvers.**
- **Post processing of vessel motions response (e.g. calculation of significant motions in specified idealized wave spectra).**
- **Graphical representation of results: RAOs; polar plots etc.**
- **Animation of the vessel in selected idealized wave spectrum.**





## **MOSES Solver**

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### **Major Changes**

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No major changes were made to the MOSES solver for this release.

### **Minor Changes**

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- **WI 8780: Fix a problem for diffraction analysis with a "large" matrix**
- **WI 8781: Fix report heading alignment for joint crushing and joint code check reports.**

### **Problem Reports**

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We greatly appreciate any bug reports or suggestions you may have. Please report any bugs or anomalies you find through [www.bentley.com/serviceticketmanager](http://www.bentley.com/serviceticketmanager) .

## Appendix – Trust Licensing

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This release of MOSES uses Bentley SELECT Trust Licensing – the same licensing used by all other Bentley products. Trust licensing ensures uninterrupted access to run your Bentley software, regardless of the availability of licenses. In some software products from other vendors, a licensing service was used to check out a license when the application starts up and check it back in when the program exits. This restricts the use of software once all the current licenses are in use. MOSES now uses the trust licensing approach that is a benefit of your Bentley SELECT subscription.

Trust licensing allows any member of your engineering team to run MOSES at any time and eliminates the need to have an uninterrupted connection to SELECTserver and consequently this provides greater flexibility and greater reliability in operation. Instead of requiring the connection to SELECTserver, MOSES simply records usage of the application and allows you to access reports to see how licenses are being used in your team. License usage is aggregated and reported back to SELECTserver on a regular basis, at least once every thirty days.

You can review your team's usage of MOSES via a web-based interface through a wide range of reports. These reports are available at <http://selectserver.bentley.com> and let you see who used what software and when. This information will be valuable to you in ensuring that you are getting best value from your software. The designated account contact for your organization will have permission to login to this server and to review these reports. This SELECTserver web portal also includes tools for managing licenses including managing check-outs, forcing check-ins of licenses, if required, and controlling access to applications.

If your recorded usage shows a peak usage that is greater than the number of licenses that you own, your Bentley account manager will contact you to discuss the usage. They will review with you whether your current license portfolio matches your license needs and can recommend a range of options to true-up to ensure you have the licenses you need. Peak usage is the maximum number of licenses that are used within any 1-hour period.

If you would like more information on SELECTserver , you can visit:

<http://www.bentley.com/en-US/Products/SELECT+Server/>

For more information on the benefits of trust licensing and the true-up process, you can visit:

<http://www.bentley.com/trust>

For full technical details on SELECTserver licensing, start with the Introduction section of the following user manual:

<https://selectserver.bentley.com/BSS/Admin/Help/en/index.html>

## Trust Licensing Best Practices

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- Use the License Management Tool installed with your applications to view what licenses you have available on a particular machine.
- Ensure that your designated contact person and/or system administrator is able to sign in to [selectserver.bentley.com](http://selectserver.bentley.com) and view reports on usage
- Configure SELECTserver to send overusage messages to a designated administrator weekly
- Use the Scheduled Reports function in SELECTserver to send usage reports to a designated administrator weekly
- Use these email and web reports to better understand how your team uses MOSES licenses. In particular, the Peak Usage reports will indicate if your license usage matches your ownership.
- If you wish to control which licenses can be used on which machines, use the Client Access Restrictions command in the Site Configuration menu of [selectserver.bentley.com](http://selectserver.bentley.com) to apply these controls.
- Communicate with your Bentley Account Manager about your license usage, particularly if you expect your peak usage to increase above the number of licenses you own.
- Use license check-out only when you need to work off site without an internet connection for more than 30 days. There is no need to check out licenses when working in a connected environment and doing so will record that license as being continuously in use. This may add to your peak usage level.

## SELECT Licensing FAQ

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### **Which versions of MOSES use SELECT licensing?**

All MOSES products with a version number of v07.07.0.0 or later use SELECT trust licensing. You will also need a valid SELECT subscription. If you are using a dongle licensed version of MOSES, and wish to use SELECT licensing, contact your Bentley account manager regarding the conversion.

### **Can I use trust licensed and dongle Licensed versions of MOSES on the same network?**

No. You need to renew your subscription to a new SELECT subscription and from that point, all licenses will run under SELECT licensing.

### **If I use more licenses than I own, will I automatically get a bill from Bentley?**

If your license usage reports show that your peak usage is higher than the number of licenses that you own, your Bentley Account Manager will contact you and discuss options with you. These options may include adding more licenses, changing the mix of licenses that you own, quarterly term licenses or changing how you use licenses.

### **Do I need an internet connection to use Trust Licensing?**

For day to day use, a continuous internet connection is not required. You need an internet connection only when initially activating your license and at least once every month in order to record usage on the SELECTserver. It is also possible to manually submit usage logs if your security requirements mean that an internet connection is not possible.

### **Do multiple sessions of MOSES on one machine record multiple uses?**

No, usage is recorded per machine. Multiple instances of an application running on the same machine records 1 use, it does not record multiple uses.

**Our SELECT licensing agreement mentions peak usage within an interval. What is that interval and how is peak usage calculated?**

An interval for a SELECT subscription is 1 hour on the clock e.g. from 11am to 12 noon. SELECTserver counts the number of licenses used from the license pool during each interval. The daily peak usage is the highest number of licenses used during any 1 hour interval of that day. See

[http://communities.bentley.com/products/licensing/b/licensing\\_blog/archive/2010/05/27/what-is-usage-and-how-is-it-calculated.aspx](http://communities.bentley.com/products/licensing/b/licensing_blog/archive/2010/05/27/what-is-usage-and-how-is-it-calculated.aspx)

**Do I need to check out licenses to use MOSES?**

There is no need to check out a license to your machine unless you are going to be working offline for 30 days or more. In fact, checking out a license will record the license as being in continuous use so this could potentially increase the calculation of your firm's peak license usage.

**Is the license usage logging secure and private?**

Trust licensing uses the same usage logging mechanism you are using now with non-trust licensing. It transmits usage data using standard internet protocols and obscures user and machine names using a SHA-1 hash so that they cannot be read outside your company.

**Where can I get training on how to understand and monitor license usage?**

SELECT subscribers are able to access SELECT server training via the Bentley LEARN server.