

# Hydro GeoBuilder 2009.1

**GETTING STARTED GUIDE**

# Hydro GeoBuilder

## GETTING STARTED GUIDE

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## Software Maintenance and Support

Schlumberger Water Services' Annual Maintenance Contracts are designed to reduce the amount of time and effort required to keep your modeling software up-to-date. With automatic reminders of updates and upgrades, users will never have to wonder if their software is out-dated. Additionally, with unlimited technical support available during the term of the Maintenance Contract, you can obtain rapid resolution to all of your software issues.

Annual Maintenance Benefits Include:

- Major Software upgrades, and version updates
- Unlimited Telephone Support
- Unlimited Email Support
- Priority Response to Error Reports
- Direct Bug Fix Updates
- Documentation Updates
- On-Demand FTP Downloads
- Showcase Your Projects in SWS E-News
- Option to Beta Test New Products
- Annual Reminder for Contract Renewal

For more information about Maintenance Contracts, please contact our Sales department via phone at +1 (519) 746 1798, or via email at [sws-sales@slb.com](mailto:sws-sales@slb.com)

## How to Contact SWS

If, after reading this guide and using your software, you would like to contact Schlumberger Water Services. with comments or suggestions, or if you need technical assistance with your software, you can reach us at:

### **Schlumberger Water Services**

460 Phillip Street - Suite 101  
Waterloo, Ontario, CANADA, N2L 5J2  
Phone: +1 (519) 746-1798  
Fax: +1 (519) 885-5262

General Inquiries: [sws-info@slb.com](mailto:sws-info@slb.com)

Sales Inquiries: [sws-sales@slb.com](mailto:sws-sales@slb.com)

Technical Support: [sws-support@slb.com](mailto:sws-support@slb.com)

Web: [www.swstechnology.com](http://www.swstechnology.com), [www.water.slb.com](http://www.water.slb.com)

Technical Support is available from 7:00 am to 6:00 pm EST, Monday through Friday, except Canadian holidays. When contacting the Technical Support department, please have the following information available:

- your Name, Company Name, and Address
- your Product Serial Number, Version, and Build number
- the full pathname to your software installation, and to your program files

## Hydro GeoBuilder Features

From raw data, to the conceptual model, to the FEFLOW model, Hydro GeoBuilder will dramatically improve the way you build your groundwater models. Working with mesh-independent data, you will quickly capture the essence of the groundwater flow system without being constrained by a particular mesh size or type. With Hydro GeoBuilder, the tedious tasks of populating the 3D finite element mesh are done for you automatically, allowing you to focus more effort on conceptualization and interpretation.

- Interpret your native file formats to conceptualize your site: Spreadsheets, XYZ points, Shapefiles, ASCII/Binary Grid Files, and Cross-sections
- View and edit raw data in 2D or 3D, before generating the mesh
- Convert between coordinate systems: UTM, Geographic, Gaus Kruger, and more.
- Work with flexible units for length, conductivity, and flow rates
- Unit conversions to be compatible with FEFLOW .FEM file format
- Easily assign tens or hundreds of multi-layered wells to the finite element mesh
- Automatically generate the finite element mesh from multi-layered pinchout and discontinuous layers based on your raw data
- Automatically assign appropriate flow properties in regions of pinchouts.
- Generate slice elevations that deform to the geology or are layer-independent - ideal for complex geologic structures
- Refine superelement mesh around wells, lines (rivers, drains, etc.) and the model boundary
- Execute advanced translation routines for managing conductivities based on geometry and properties
- Automatically generate the ASCII FEFLOW .FEM file from the conceptual model, and
- Generate Finite Difference Grids for translation to MODFLOW file format

# System Requirements

## Hardware Requirements

Hydro GeoBuilder requires the following **minimum** hardware configuration:

- **Supported Operating Systems:** Windows XP Pro (SP2 or later) 32-Bit; Windows XP Pro (SP2) 64-Bit; Windows Vista Business, Ultimate or Enterprise, 32-Bit (SP1) and 64-bit.  
**Note:** Windows XP Home, Windows Vista Home Premium, Home Basic or Starter Versions, are not supported.
- **Processor:** Pentium 4-compatible processor or higher, 600MHz (1 GHz recommended)
- **CD or DVD Drive:** CD-ROM Drive
- **Hard Disk:** 100MB
- **RAM:** 512 RAM (1GB or more recommended)
- **Networking Hardware:** Network Card (required for licensing)

If you intend to build larger models, it is recommended that you upgrade to the recommended specifications in the above list.

If you have any problems with your particular system configuration, please make sure that you followed the installation instructions precisely. If the problem is not resolved, contact your system administrator. Finally, if you continue to experience difficulties, see the section on **How to Contact SWS**.

## Software Requirements

The Hydro GeoBuilder installation package requires the following software configuration:

- Windows Installer 3.1 (required for .NET 3.5 Service Pack 1 component)

The Hydro GeoBuilder installation package also installs the following software, if not detected on your computer:

- Microsoft .NET Framework 3.0

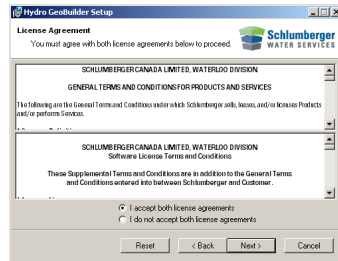
## Installing Hydro GeoBuilder

Follow the steps below to install Hydro GeoBuilder:

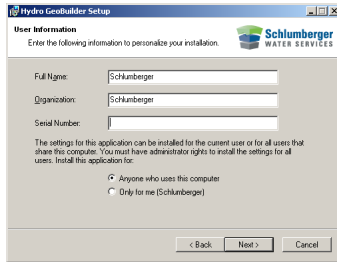
1. Log in as the Local Administrator of your computer.
2. Close all other application running on your desktop.
3. Insert the installation CD into your CD-ROM drive to initiate the CD Navigator. If the navigator does not automatically open the Product Installation screen, explore the CD-ROM (using Windows Explorer) and double click on the **Hydro\_GeoBuilder\_Setup.exe** file.
4. To begin installing your software, click on the “**Install Software**” screen.
5. The “Welcome to Hydro GeoBuilder Installation Wizard” window will appear. Click the **[Next>]** button to continue.



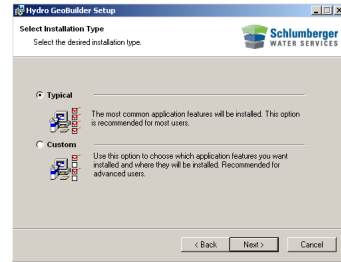
6. The License Agreements will appear on your screen. If you agree with both license agreements, select “I accept both license agreements”, and then select the **[Next>]** button.



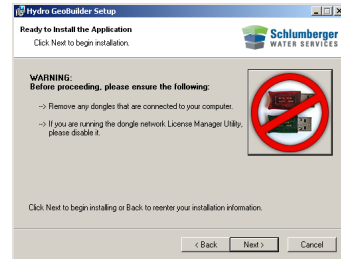
7. The User Information dialog will appear. Type in your Hydro GeoBuilder **Serial Number**, along with your Full Name and Organization. Select the *Anyone who uses this computer* option if you want other user accounts on the computer to be able to run Hydro GeoBuilder. Select the *Only for me (User Account)* option if you only want the current user account to be able to run Hydro GeoBuilder. With this option, other user accounts will not have access to the program.



8. Choose the desired installation type: If you choose **Typical**, Hydro GeoBuilder will be installed to the default directory (**C:\Program Files\Hydro GeoBuilder**), and all features will be included. If you choose **Custom**, you can modify the installation directory, and choose to exclude various optional features from the installation, such as the demo projects, and the HASP drivers (required for dongle licensing). Make a selection and then click the **[Next]** button.



9. The **Ready to Install the Application** dialog will appear. If you are using the dongle licensing system, please ensure that no dongles are connected to your computer. If you are running the dongle network License Manager Utility, please disable it. Click the **[Next >]** button to start the installation.



10. Once Hydro-GeoBuilder is installed on your computer, the dialog below will appear on your screen. Click the **[Finish]** button to exit the installation wizard.



# Software Licensing

## Types of Licenses

### Standalone

A **Standalone** license provides one computer with one license to run one SWS program for a limited time. Standalone licenses are “node-locked” meaning that they are only valid for the computer from which the license is requested.

### Network

A **Network** license provides your organization with the flexibility to manage and administer multiple time-limited licenses from a central license server in a network environment (LAN or WAN). Using the **License Manager** tool, workstations on the network equipped with SWS software, can access and use the available licenses on the license server.

**Roaming** network licenses provide flexibility by allowing workstations to temporarily “checkout” available licenses from the license server, for use when disconnected from the network. When a license is “checked out” from the license server, it is unavailable to other workstations on the network until it is “checked in”. This method of licensing is useful if your SWS software is installed on a laptop computer that is occasionally disconnected from the network, *i.e.*, on travel, in the field, etc.

### Trial

A Trial license is a time-limited standalone node-locked license used for evaluating fully-functional SWS software free-of-charge. Once a trial license is expired, the SWS software will become inoperable until a commercial license is purchased.

For more information on SWS software licensing, please contact SWS Sales ([sws-sales@slb.com](mailto:sws-sales@slb.com)) .

## Requesting a License

Software licenses **must** be requested electronically by the user from the computer on which the license will be used. Network licenses **must** be requested from the computer that will host the license server.

### Requesting from Hydro GeoBuilder

The SWS software must already be installed before you can request licenses using this method.

When starting SWS software for the first time, you will be prompted with a **“No License Found”** dialog box.

1. Select the **“Request License”** option and click the **[OK]** button.
2. Fill out the **“License Request”** form, specifying customer information, the license type, and if applicable, the number of licenses and if roaming is required.
3. If the computer is setup to send e-mail, click the **[Email Request]** button to email the request information to SWS Support ([sws-license@slb.com](mailto:sws-license@slb.com)). If the computer is not setup for e-mail, click the **[Create Request File]** button to save the request file to a location on your computer. Make a copy of the file, and transfer it to a computer that is configured for e-mail. Attach the file to a new e-mail message, and send it to [sws-license@slb.com](mailto:sws-license@slb.com).

4. Once SWS has received your license request, the appropriate license file will be sent back as soon as possible.

Once you have received the license file, you can proceed to install the license (see following section).

### Requesting from a License Server

If the computer acting as the license server does not have an installation of the SWS software, you can request a license using the **License Request** tool. This tool is automatically installed to your computer when you install the **License Manager**. If you haven't done so already, please install the **License Manager** (see *Installing Network Licenses* in the following section). Once the license manager is installed, follow the steps below.

1. Select **Start > SWS Software > License Manager > Generate License Request**
2. Fill out the **“License Request”** form, specifying customer information, the license type, and if applicable, the number of licenses and if roaming is required.
3. If the computer is setup to send e-mail, click the **[Email Request]** button to email the request information to SWS Support ([sws-license@slb.com](mailto:sws-license@slb.com)). If the computer is not configured for e-mail, click the **[Create Request File]** button to save the license file to a location on your computer. Make a copy of the file, and transfer it to a computer that is configured for e-mail. Attach the file to a new e-mail message, and send to [sws-license@slb.com](mailto:sws-license@slb.com).

4. Once SWS has received your license request, the appropriate license file will be returned via e-mail.

## Installing a License

Once you have received a license file from SWS, you can install the license. Please note, that the license can only be installed on the computer that was used to generate the license request. For standalone licenses, the SWS software must already be installed before you can install a license. For network licenses, the License Manager tool must already be installed before you can install a license. The license installation is different depending on the license type, *e.g.*, network or standalone.

### Standalone Licenses

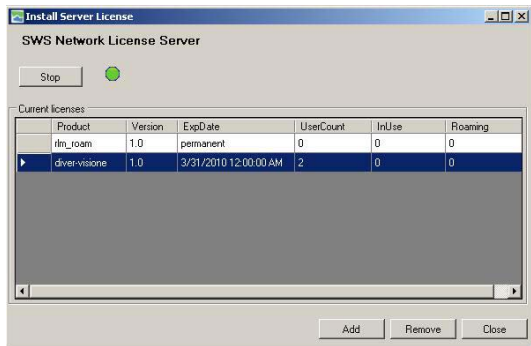
Follow the steps below to install a stand-alone license.

1. Run the SWS software by double-clicking the desktop icon or by selecting the shortcut from the Windows start menu.
2. The software will automatically detect that a license does not exist and will prompt you with the **No License Found** dialog box. Select the **Install License** option button and click the **[OK]** button.
3. The **Install License** dialog will appear on your screen. Select the **Open** button (folder with a green arrow), and navigate to the location on your computer where the license file is saved. Select the license file and then click the **[Open]** button.
4. Click the **[OK]** button.

### Network Licenses

For network licensing, the license file must be installed on the license server **and** on each client machine that requires access to the network licenses. Before a license can be installed on the license server, you must install the **License Manager** tool on the computer acting as the license server:

1. On the license server, insert the installation CD in your CD-ROM drive to initiate the CD navigator.
2. Once the **Product Installation** screen appears, click the **Install License Manager** button.
3. Follow the on-screen instructions to complete the installation.
4. Once the installation is finished, select **Start > Programs > SWS Software > License Manager > Install License**
5. Click the **Add** button, and navigate to the location on the computer where the license file is saved. Select the license file and then click the **[Open]** button.
6. The license server service should start automatically, once the license is installed. The "Red" indicator will switch to "Green" when the license service has been successfully started, and information pertaining to the installed license will be displayed in the table below.



You may also monitor the status of the license server service through the web administration page. You can access this page by selecting **Start > Programs > SWS Software > License Manager > Web Administration Page**. For more information on navigating the web administration page, please see the End-User Guide available along the side menu of the web administration page.

- The network license file must also be installed on each client computer, using the method described under "Standalone Licenses".

## Roaming

The License Manager allows you to check-out licenses from the license server for use when disconnected from the license server, e.g., in the field, when traveling etc. To check-out a license from the license server,

- Make sure **Hydro GeoBuilder** is opened.
- Select **Help > Licensing... > Check-out License**, from the main-menu.
- Enter the duration of the check-out period (number of days), and then click the **[OK]** button.
- Hydro GeoBuilder** must be restarted before the license is actually checked out from the license server.

Once the license is checked out, the license will not be available to other users connected to the license server until the license is checked-in. Once the specified number of days has expired, the license will be automatically checked back into the license server. To check in a roaming license manually (before the expiration date),

- Make sure **Hydro GeoBuilder** is opened.
- Select **Help > Licensing... > Check-In License**, from the main menu.
- Hydro GeoBuilder must be restarted before the license is actually checked back into the server.

## Frequency Asked Questions

The following is a list of Frequently Asked questions concerning software licensing. If your question is not addressed here, please feel free to contact your sales representative to send message to [sws-license@slb.com](mailto:sws-license@slb.com)

### How do I request a license?

For information on how to request a software license, please refer to *Requesting a License* on page 11.

### How do I install a license?

For information on how to install a software license, please refer to *Installing a License* on page 13

### When does my software license expire?

Once your license is installed, it is valid for an 18 month period. As you approach the expiry date, the SWS software will automatically remind you to renew your license.

### What happens when my license expires?

When your software license expires, the SWS software will become inoperable. However, your data will remain intact. You will be able to resume normal operation of the software once you have renewed your software license.

### How do I renew my software license?

Once your software license has expired, you must request a new license by following the steps described in section "*Requesting a License* on page 11", and then forward it to your sales representative or [sws-license@slb.com](mailto:sws-license@slb.com) for a renewal. If you wish to renew your license prior to the expiry date, please contact your sales representative or [sws-license@slb.com](mailto:sws-license@slb.com).

### What happens if I lose my license file?

If you lose your license file, please contact your sales representative or [sws-license@slb.com](mailto:sws-license@slb.com). SWS will e-mail you copy of the original license file free-of-charge. However, the license will only be valid for the computer for which the license was originally installed.

### Can I transfer a license to another computer?

Yes. To request a license transfer, please contact your SWS sales representative or [sws-license@slb.com](mailto:sws-license@slb.com).

### What happens if my network card is damaged and needs to be replaced?

SWS software licenses are linked you your computer's network card. If your network card is removed and replaced with a new one, your software license will become invalid. In the event that you need to replace your network card, please contact your SWS Sales representative or email [sws-license@slb.com](mailto:sws-license@slb.com) .

## Demonstration Exercise

A comprehensive demonstration exercise is available electronically in PDF format on the Hydro GeoBuilder installation CD.

To access this document, insert the installation CD into your CD-ROM. The CD installation interface should appear on your screen.

From this screen, select the **Tutorials** folder, located under the Documentation heading.

If the CD installation interface does not appear on your screen, browse to the **Tutorials** folder on the installation CD, using

**Window's Explorer.**

## Software solutions for environmental professionals

### Our Customer Service Commitment

Schlumberger Water Services (SWS) software consists of a complete suite of innovative groundwater and environmental software programs that will take your projects from inception to completion. Functionally rich, technically advanced, yet simple and easy to use, SWS software will dramatically improve your ability to effectively manage, analyze, and report your data.

### SWS Solutions include:

Visual MODFLOW Premium*	AquaChem*
Visual MODFLOW 3D-Builder*	Visual HELP*
Hydro GeoAnalyst*	UnSat Suite Plus*
AquiferTest Pro*	GW Contour*

### Software support for our valued clients

SWS packages are supported by qualified groundwater professionals via phone, fax, email, or through the web. With annual maintenance, receive continuous technical support, software updates, access to special programs and more! For high-level project support, choose our Extended Support Services and receive project support directly from our team of groundwater consultants.

### Intermediate and Advanced Software Training

Maximize your knowledge with a series of comprehensive training courses offered around the world. Our courses are designed to provide end-users with a complete understanding of the SWS software and its applications, and maximize productivity when delivering projects.



sws-support@slb.com  
www.swstechnology.com