

HYPACK®

Installation

HYPACK® MINIMUM SYSTEM REQUIREMENTS

The following are the *minimum* requirements to run these programs. Particularly if you are working with sub-bottom, multibeam or side scan data, a good gaming computer (large RAM, multiple CPU cores and fast graphics) will be much more efficient.

NOTE: To run the 64-bit modules, you must install HYPACK® on a computer with 64-bit capability.

TABLE 1. Minimum System Requirements

		HYPACK®	HYSWEEP®
Operating System		Windows® 7, Windows® 8, Windows® 10	
Processor	Windows® 7,8 or 10	1 GHz or faster	
RAM^a	Windows® 7, 8 or 10	4 Gb	
Hard Drive		20 Gb	120 Gb with backup ^b
Monitor	Resolution	1024x768	
	Colors	32-bit	
Dongles		Dongles are USB devices required by HYPACK® to activate the program modules associated with the license purchased.	

a. Increased RAM will speed the performance of many programs significantly. In this case more is better.

b. Sub-bottom, multibeam and side scan data files are very large. Depending on your project, you may need a larger hard drive.

NETWORK SYSTEM REQUIREMENTS

Users can share project data across a network. You can elect to share projects on your computer with other users on your network or you can use a designated computer as a central storage facility and all users can access projects from that location.

Unless you specify otherwise, HYPACK® still defaults to the directories in your \HYPACK 2016\Projects*ProjectName* folder so, if you prefer, you can use HYPACK® without the network capability.

NOTE: If you decide to have a computer act as your storage location, that computer does not need a HYPACK® dongle. Only computers that actually run HYPACK® require a dongle.

The network capability was originally developed to access and share your projects in the office. During SURVEY or DREDGEPACK®, it is possible to load a network project and log the data directly back to the network computer *only if you have totally reliable Ethernet (not WiFi) connections. If your hardware configuration includes serial devices, we recommend that you only log data to the same computer that is running the SURVEY or DREDGEPACK® program.*



Tip: Alternatively, you can use the SURVEY DATA TRANSFER program, which runs simultaneously with HYPACK® SURVEY, to send a *copy* of your data files to a user-defined location via a LAN or Internet connection. You can instruct the program to send the data at the end of each line or when you close HYPACK® SURVEY.

There are some system rules that must be followed for networked projects to work completely. All further references in this manual to working with projects over the network will assume that these conditions have been met.

- **All computers to which the project refers must stay on the network.** If your project refers to a computer that has been disconnected from the network, those files will be listed in the Project Items list, but they will be marked with a red 'X' to indicate that they are unavailable. Of course, if the computer with the project file is off of the network, no one can open the project at all!
- **All computers with files included in the project must share those directories with both read and write capabilities**

through the Windows® operating system. An unshared folder is as unavailable as if the computer was turned off. A read-only file can not interact with the other files in the project in order to do the work that you are trying to accomplish.

- **All files included in the project must remain in the same location.** If you move files, you must reload them to your project. Otherwise, the file will be marked with a red X indicating that it is unavailable.

INSTALLATION

HYPACK® is delivered on a DVD or via download from the HYPACK® Web site (www.hypack.com). You must be in administrative mode.

To install the package from the download, double-click on the downloaded file (HYPACK_20xx_Setup.exe) and follow the onscreen directions.

To install the package from a DVD, place the DVD in your DVD drive.

Auto-start: Many computers will “Auto Detect” the presence of the DVD and automatically begin the installation process.

Manual start: Some computers do not automatically detect the DVD.

1. **Right-click on the Start Button and select Explore.**
2. **Double-click the "HYPACK_menu.exe" file from the DVD Folder.** The installation program will begin.
3. **Follow the on-screen directions** until the screen says the installation is complete.

SYSTEM SETTINGS

There are a few system settings that affect the proper function of HYPACK®. For best results, check the following options before you begin.

- Windows® User Account Controls
- Windows® Regional Options
- Windows® 7 Data Execution Prevention setting
- Firewall

- Windows® updates: HYPACK®, like any software that runs on Windows® machines, uses the most up-to-date Windows® drivers and runtime libraries. So should you.

USER ACCOUNT CONTROLS IN WINDOWS®

User account controls (UAC) have been responsible for various erratic HYPACK® issues. Some of these occur during installation. The UAC also interferes with time synchronization capabilities. For this reason, we recommend that you turn the user account control off.

To turn off the User Account Control:

1. **In the Windows® Control Panel, go into ‘User Accounts and Family Control’.**
2. **Select ‘User Accounts’.**
3. **Click on the option to ‘Turn User Account Control on or off’.** A new dialog will appear.
4. **Clear the ‘Use UAC to help protect your computer’ checkbox.**
5. **Restart the computer** to put your change into effect.

WINDOWS® REGIONAL OPTIONS

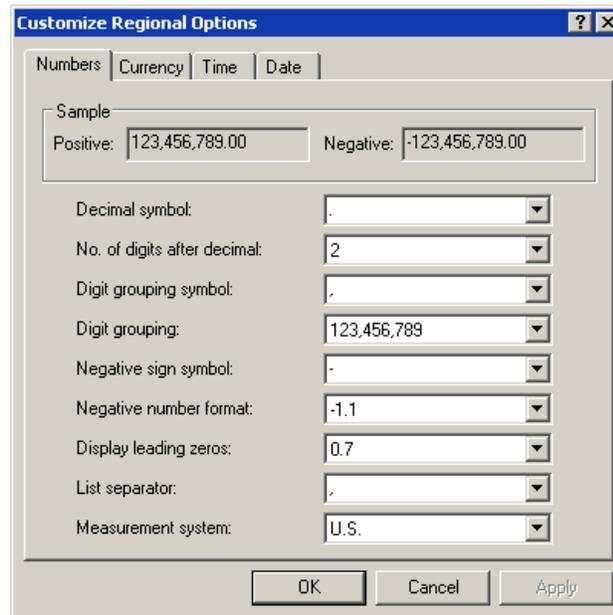
There are varying conventions for numerical notation throughout the world. In the United States, we use a comma for digit grouping (ex. 12,345) while some of our users abroad use a period. Similarly, where in the States we use a period as the decimal symbol (56.13), some of our users use a comma.

HYPACK® uses the American convention using a period for the decimal symbol and a comma for digit grouping. Problems arise if your Windows® settings for these options are not set to use the same convention.

When you install HYPACK®, you may see a small warning that your settings are not compatible.

To change your conventions for numeric notation:

1. **Click the Windows® Start button-SETTINGS-CONTROL PANEL.**
2. **Select REGIONAL AND LANGUAGE OPTIONS.**
3. **In the General tab, click [Customize].** The Customize Regional Options dialog appears.

FIGURE 1. Customizing your Numeric Notation Conventions

4. In the Numeric tab, set the Decimal Symbol to '.' and your Digital Grouping symbol to ','.
5. Click [OK].

WINDOWS® 7 DATA EXECUTION PREVENTION SETTINGS

Some of our users on Windows® 7 machines have had periodic exception errors when they tried to launch certain HYPACK® modules (GEODETIC PARAMETERS and SURVEY). The problem originated with the Windows® Data Execution Prevention (DEP) function. The solution: limit this function to Windows® programs and services.

To modify your DEP setting:

1. In the Windows® Control Panel, open 'System and Security' and click the System link.
2. Click on the Advanced system settings link in the navigation bar. The System Properties dialog will appear.
3. In the Advanced tab, click [Settings]. The Performance Options dialog will appear.
4. In the Data Execution Prevention tab, select 'Turn n DEP for essential Windows® programs and services only' and click [OK].
5. Restart your computer for these changes to take effect.

FIREWALLS

Your firewall settings can affect HYPACK® performance when you are working with network connections. As technology advances, HYPACK® uses network connections increasingly more often. These applications include such uses as:

- Network dongles
- Network connections in the hardware configuration
- Using the OPC server in dredge configurations

Any time you have network connections, the firewall can interfere with required HYPACK® function of these connections.

The solution: Take your computer off the Internet and turn off your firewall.

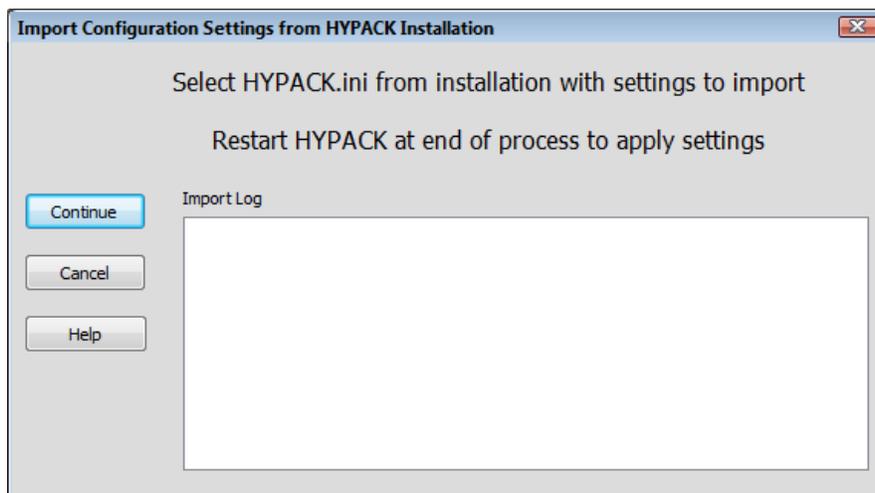
IMPORTING GLOBAL SETTINGS

If you have already been working in HYPACK® and you have installed a new release version on your HYPACK® computer, it can be a time-consuming task to configure the interface like you are used to.

To simplify your upgrade experience, a simple menu selection automates the process. The program copies the following settings and files from the previous version of HYPACK® to the install folder of the new version:

- Web Map Server Configuration
 - ARCS Permits and Licenses.
 - S-63 Permits and Licenses
 - HYPACK Group Folders
 - Info from Tools menu of SHELL.
 - Boat Shape files (*.SHP)
 - 3D Shape files (*.3OD)
 - HYPLOT Template Files
 - HYPLOT Title Blocks
 - TPU EDITOR Settings
 - HYDRO DATABASE Location
1. **Select SETTINGS-IMPORT GLOBAL SETTINGS.**

FIGURE 2. *Import Global Settings*



2. **Choose whether to copy the VDatum files.** We recommend that you always use the latest VDatum files—those included with your new install.
If you installed the VDatum with the new install, this option is unnecessary.
If you have not installed VDatum files with the new install you can use this option to quickly copy them from the previous install.

NOTE: If your VDatum file is not available in the previous release, you must download and install the VDatum files from the HYPACK® website.

3. **Click [Continue].** A File Open dialog appears.
4. **Navigate to the install folder of the previous HYPACK® version.**
5. **Select the Hypack.ini file and click [Open].** The program copies the settings from the selected file, and the files from the corresponding install to the new install.
6. **Close HYPACK®.** When you open it again, the new HYPACK® applies the copied files and settings.

DONGLES

Anyone, whether they own a HYPACK® license or not, can use the HYPACK® shell to view project data. You can change display options, and enable and disable files to view your data as you choose.

A dongle is required by HYPACK® to activate the program modules associated with the license purchased. The dongle is also encoded with permit numbers required to display S63 or ARCS electronic charts.

The **License Manager** runs the dongle test. The program reads your license information and displays your dongle status and permit numbers.

HYPACK® dongles have the following features:

- **Programmable expiration date:** The keys will be burned with the your maintenance plan expiration date. After this date, the dongle will not allow you to run further program upgrades until your license is renewed. (Leased dongles will not allow you to run HYPACK® after the lease expiration.)
- **Allows renewal over the Internet:** When your license is renewed, HYPACK will email you a license file which is used to update your dongle information.
- **Allows multiple users to use one dongle on a local network.** One dongle on a specified computer in your office can be used for 'n' users (5, 10, 12, 25, etc.). The dongle automatically limits the number of users at any one time to the number of license purchased for this key.

All of these functions will be managed through the License Manager.

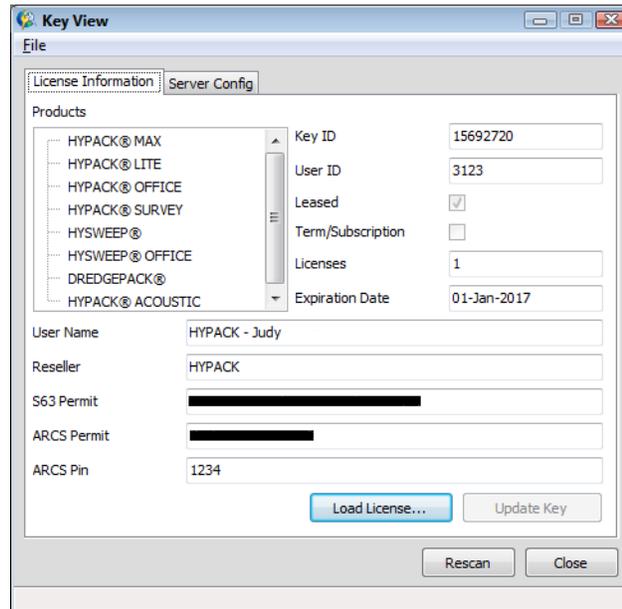
LICENSE MANAGER

The LICENSE MANAGER reads your HYPACK® license information from your dongle and displays your dongle status with the permit numbers required for S63 and ARCS charts. You can run it either from the HYPACK® interface or as a stand-alone executable.

To run the dongle test:

- **Through the HYPACK® interface,** select on SETTINGS-LICENSE MANAGER.
- **As a stand-alone program,** from the Windows® Start menu, select PROGRAMS-HYPACK-LICENSE MANAGER.

FIGURE 3. LICENSE MANAGER



The LICENSE MANAGER display includes the following:

- **All dongle types detected** will be listed under Modules. If it detects no key, it displays a dialog with direction to either attach your key and try again or define a new network location where your network key is found.
- **Key Number**
- **User Name, ID Number and Organization**
- **MP (Maintenance Plan) Ending:** HYPACK® continues to function, but *any program updates after this date* will not run. You can arrange with our Accounting department (MP@hypack.com) to renew your Maintenance Plan over the Internet.
- **Leased:** If this option is checked, the dongle will not be recognized and *HYPACK® will not run on leased keys after the expiration date.*
- **Number of licenses enabled on the dongle.** If you are using it only for your computer, this number will be '1'. Numbers larger than one allow multiple users to use the dongle on a local network.
- **ARCS Permit Number** which is used in a routine to enable you to use ARCS background charts.
- **S63 User Permit Number** which is used in a routine to enable you to use S63 background charts

[Rescan] repeats the test.

UPDATING YOUR LICENSE

When your maintenance plan or lease nears expiration, you must contact HYPACK to arrange for renewal if you want to continue to receive program updates and new releases past your expiration date. When the proper arrangements have been made with our accounting department, we will email you a license file. (You may receive these burned to CD by special request.)

1. **Copy the license file to your hard drive.** The location on the hard drive is unimportant. (If you copy it from a CD, be sure the file on your hard drive is not read only.)
2. **Select SETTINGS-CHECK HARDLOCK** to access the License Manager.
3. **Click [Load License File].** A File Select dialog will appear
4. **Select your license file and click [Open].** The new license information will display in the License Manager.
5. **Verify the new information is correct.** The MP Ending date should match your new Maintenance Plan Expiration date.

IMPORTANT! If, by chance, an error is made in generating your license file, you may not be able to run the modules for which you have purchased licenses.

6. **Click [Update Key].** This checks that the key number matches the license information, then updates the key to run HYPACK® according to your license.

NETWORK DONGLES

A network dongle is programmed to allow a pre-determined number of users to run HYPACK® on a local network.

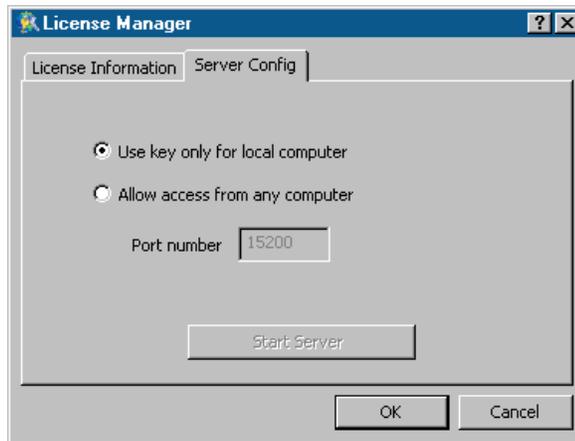
For example, you have 5 HYPACK® Office licenses. You can install HYPACK® on 20 office computers and configure them to look for the dongle in a specified network location. Up to five users can log on simultaneously and run the package without having a dongle on their individual computer. If a 6th user tries to log on, they get a message telling them that all licenses are currently in use and to try again later. (You can, of course, contact us and make arrangements remotely change your license to a 6-user one, for the cost of the additional license.)

CONFIGURING A NETWORK DONGLE

To configure a network key on your server:

1. Run the License Manager.
2. In the Server Config tab, select the 'Allow access from any computer' option, enter the port number of the computer with the dongle and click [Start Server].

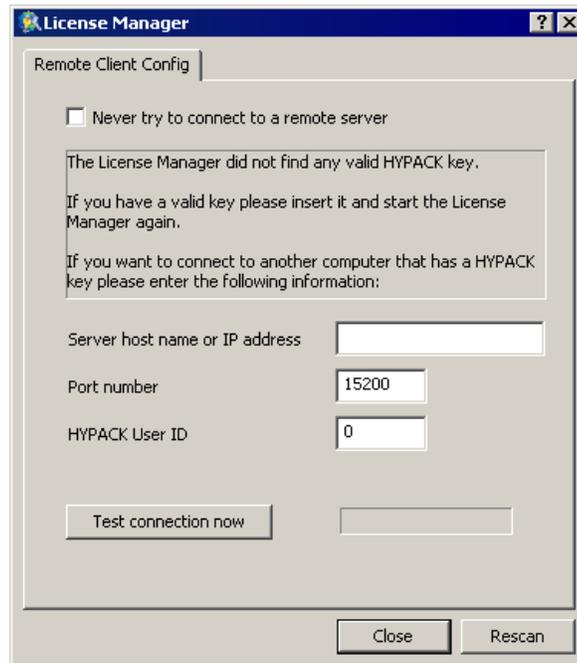
FIGURE 4. Server Configuration Tab



3. Click [OK].

ACCESSING HYPACK® ON A NETWORK KEY

1. From the Windows® Start menu, select **PROGRAMS-HYPACK 2016-LICENSE MANAGER**. The License Manager appears and, since you have no dongle on your computer, it assumes you want to work on a network connection and provides the interface for you to configure the connection.

FIGURE 5. Configuring Network Connections in the License Manager

2. **Enter the name or address and the port number for the server** where the dongle is installed.
3. **Enter the HYPACK® User ID.** This is part of the display when you scan the key itself so you can get this from your network administrator. (It is also on record with HYPACK® Technical Support.)
4. **Click [Test connection now].**

USER PERMISSIONS

User Permissions can be configured to limit which modules are available to each person or group of people who use HYPACK®. User Permissions can *not* enable modules that are not supported by the type of license (dongle) you have purchased.

When HYPACK® is launched for the first time after installation, there are no permissions set and no password is required to log on.

If you want to use the Permission feature, your designated System Administrator should:

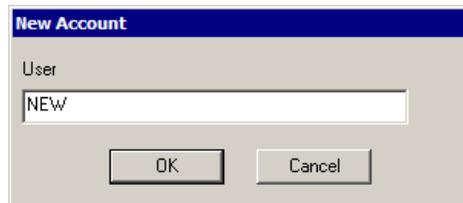
1. **Open the Control Panel and click [Security Settings]** in the General Tab.

2. **Choose a password** by entering a password and clicking [Apply].

NOTE: By definition, the Administrator has access to all areas.

3. **For each additional user**, the Administrator will do the following:
 - a. **Click [Add]**. The Create New Account dialog appears.

FIGURE 6. *Create New Account Dialog*



- b. **Enter the Permission name and click [OK]**.
- c. **Enter the password for that user.** If no password will be required, leave the field blank.
- d. **Select program areas where the user will be allowed to work.**
- e. **Click [Apply] and [OK]**.

The next time someone launches HYPACK®, the additional users will be listed in the Log On dialog. Each user can only launch HYPACK® by logging on with their user name and entering their associated password. Once in the HYPACK® interface, they can only access those areas designated for them.

The following example demonstrates how this might work:

Assume you have purchased a full HYPACK® license (all modules available). Your company surveys during the day, and office staff edits the data and create Final Products in the evening. As the System Administrator, you might create a set of User IDs and passwords that provide access only to the modules required for each group to their assigned tasks, while maintaining full access to all licensed modules for yourself. In this example, an additional 'Guest' option allows anyone to log in without a password, but they can only modify the main display. They have no access to program modules beyond the HYPACK® shell.

FIGURE 7. Administrator— Full Access

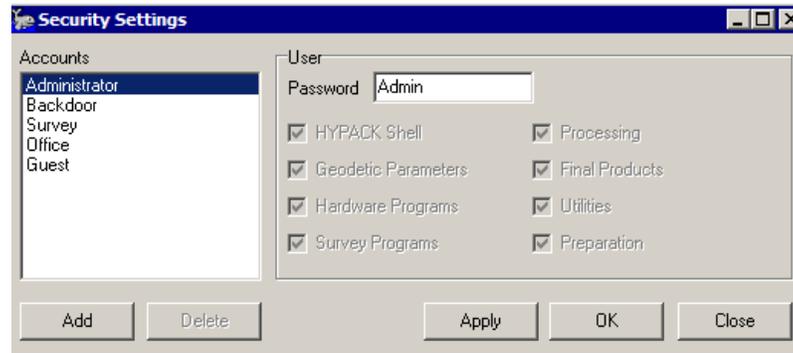


FIGURE 8. Survey—Modules used on the water. Could omit Preparation option.

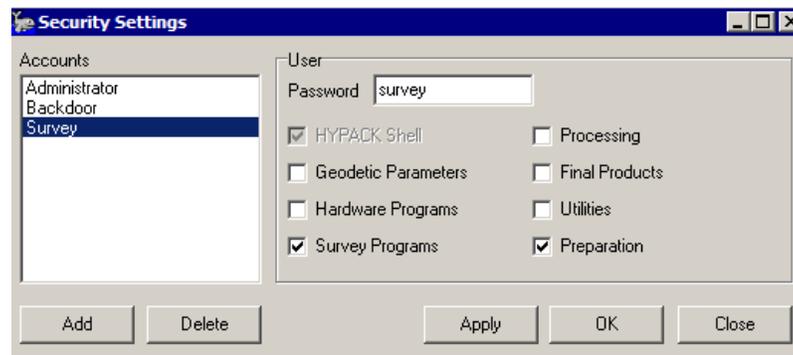


FIGURE 9. Office—Modules used in post-processing.

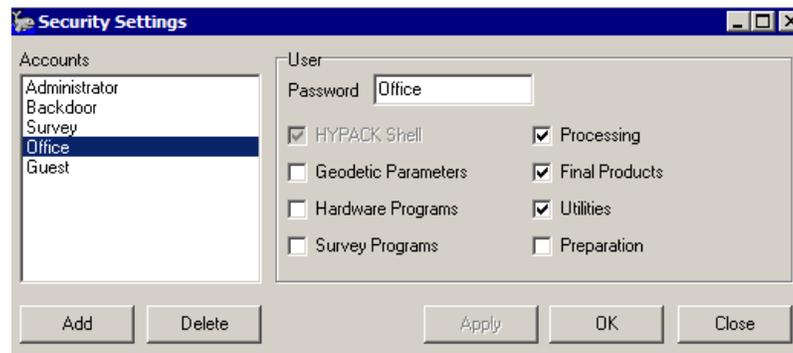


FIGURE 10. Guest—Allows display only.No password required to log on.

