

PACK'N DEPLOY USER'S GUIDE



12 January 2022

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1. Impero Connect Pack'n Deploy

Impero Connect Pack'n Deploy enables you to create a customized **Impero Connect** or **Impero Connect School** module setup ([Pack](#)) and install the module in this customized setup on multiple remote computers ([Deploy](#)) or silently on a local computer ([Silent](#)).

It is a complementary **Impero Connect** product that is available for free to **Impero Connect** and **Impero Connect School** users.

This section includes these sections:

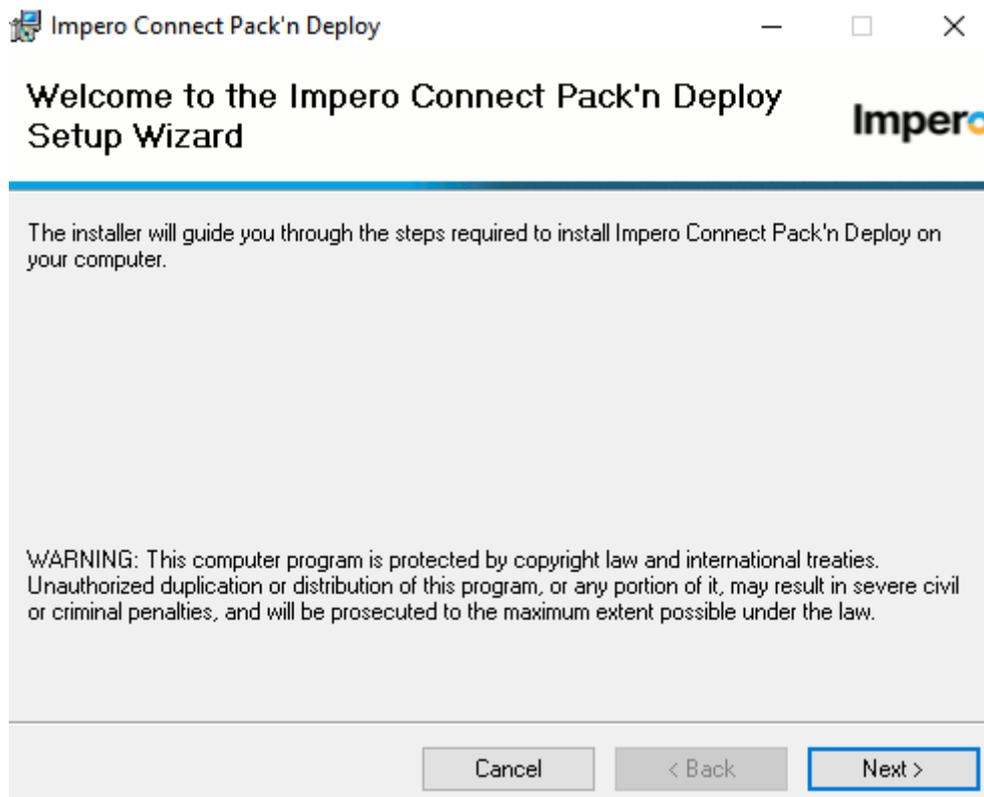
- [Install](#)
- [Load](#)
- [Pack](#)
- [Deploy](#)
- [Silent Install](#)

1.1 Install

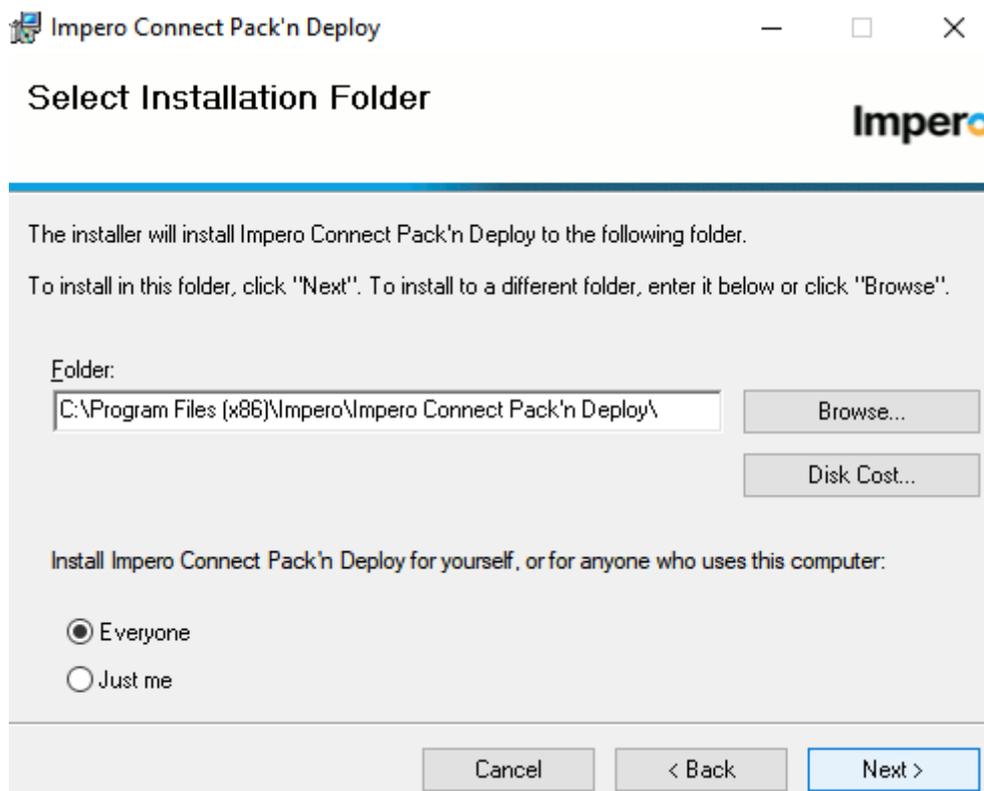
You can download the **Impero Connect Pack'n Deploy** installation file `PacknDeploy.msi` from the **Impero Connect [Knowledge Base](#)**, select **Download Products > Impero Connect Pack'n Deploy**. We recommend that you save `PacknDeploy.msi` on your computer desktop to install from it.

To install **Impero Connect Pack'n Deploy**, proceed as follows:

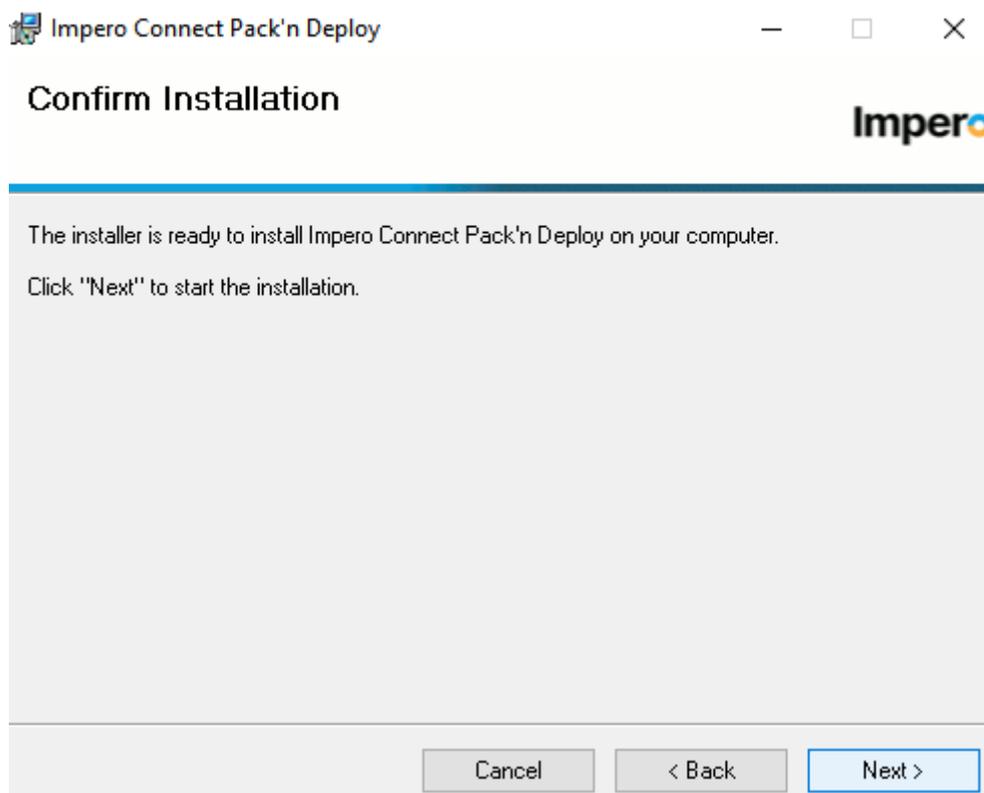
1. Run (double-click) `PacknDeploy.msi`. The **Impero Connect Pack'n Deploy** wizard is displayed:



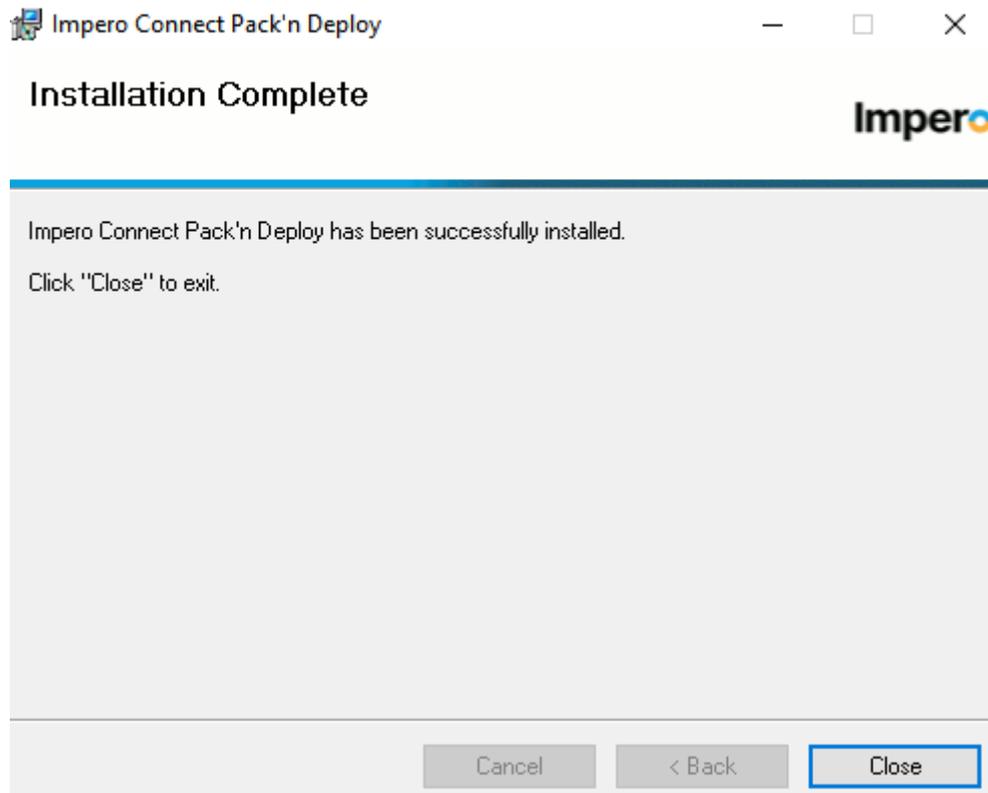
2. Click on **Next**.



- **Folder:** : Displays the destination directory path (default: C:\Program Files\Impero Connect\Impero Connect Pack'n Deploy\) that you can edit.
 - **Browse:** Click to display the Windows **Browse for Folder** window to select a destination directory, the path of which is displayed in the **Folder** field.
 - **Disk Cost:** Click to display the **Impero Connect Pack'n Deploy Disk Space** window that displays available and required disk space on your computer disk drives.
 - Select one of these options:
 - **Everyone:** Make **Impero Connect Pack'n Deploy** available to any user logged on to Windows on the computer.
 - **Just Me:** Make **Impero Connect Pack'n Deploy** available only to the user logged on to Windows on the computer during installation (default selection).
3. Click on **Next**.
 4. Click on **Next** to start installation.

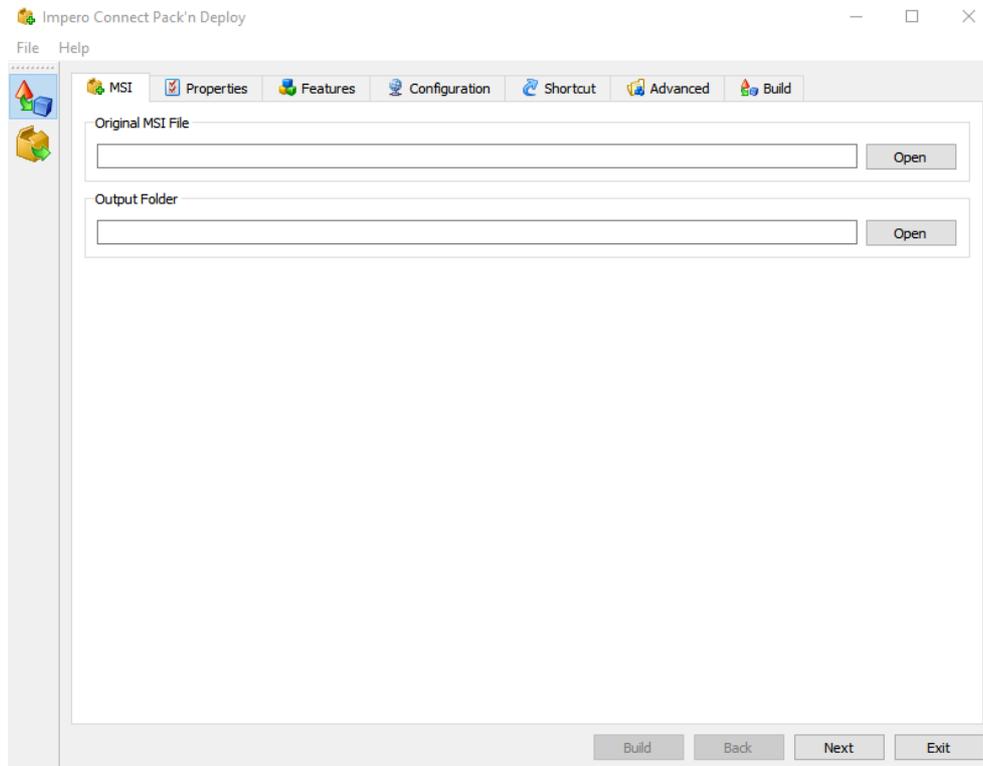


5. Click on **Close** to close the window.



1.2 Load

If you installed [Impero Connect Pack'n Deploy](#) in the suggested destination directory, click on [Start](#) > [All Programs](#) > [Impero Connect](#) > [Pack'n Deploy](#):



Alternatively, in the selected destination directory, run (double-click) `packndeploy.exe`.

It contains below a [Menu Bar](#) a left selection bar and a right work panel.

The selection bar contains these buttons:



Pack: Click to display [Pack](#) elements in the right work panel to enable creating a customized [Impero Connect](#) module setup.



Deploy: Click to display [Deploy](#) elements in the right work panel to enable deploying a customized setup [Impero Connect](#) module.

1.2.1 Menu Bar

This is the [Impero Connect Pack'n Deploy](#) menu bar:



It contains the following menus:



Exit Alt+F4: Select or press ALT+F4 to close the window and unload [Impero Connect Pack'n Deploy](#).

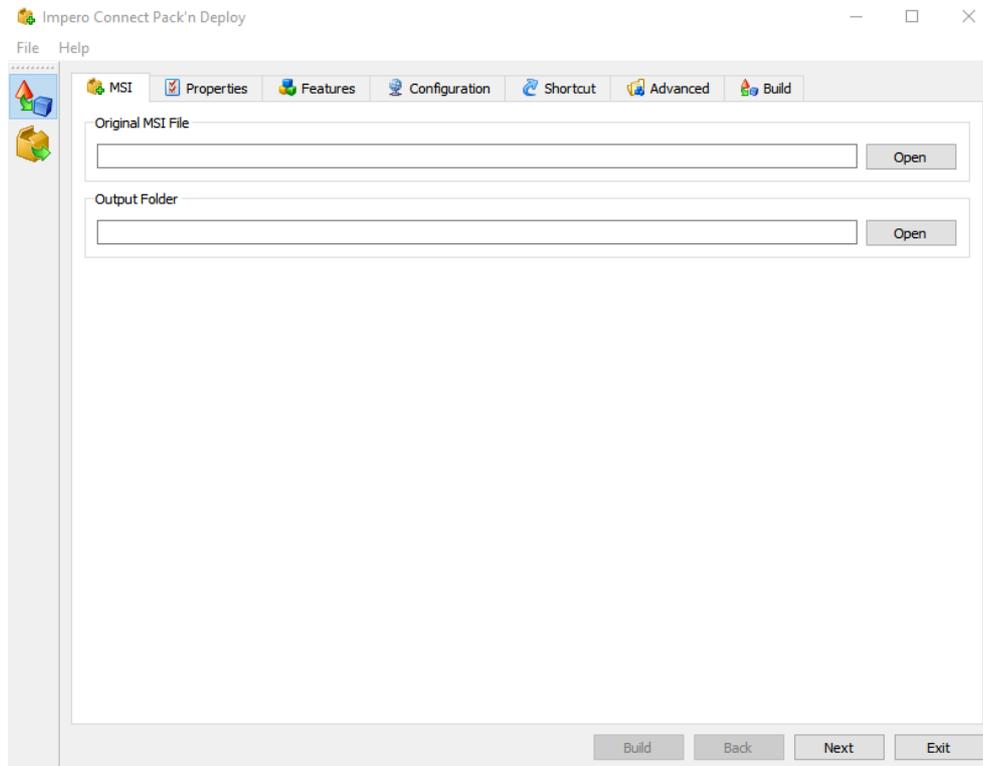


Help F1: Select or press F1 to open the [Impero Connect Pack'n Deploy Help](#) system.

About: Select this command to see [Impero Connect Pack'n Deploy](#) version and build number that you are asked for if you request [Impero Connect support](#).

1.3 Pack

Click on the [Impero Connect Pack'n Deploy](#) window left selection bar **Pack** button to display these window contents:



The right work panel contains these customized [Impero Connect](#) module setup tabs:

- [MSI](#)
- [Properties](#)
- [Features](#)
- [Configuration](#)
- [Shortcut](#)
- [Advanced](#)
- [Build](#)

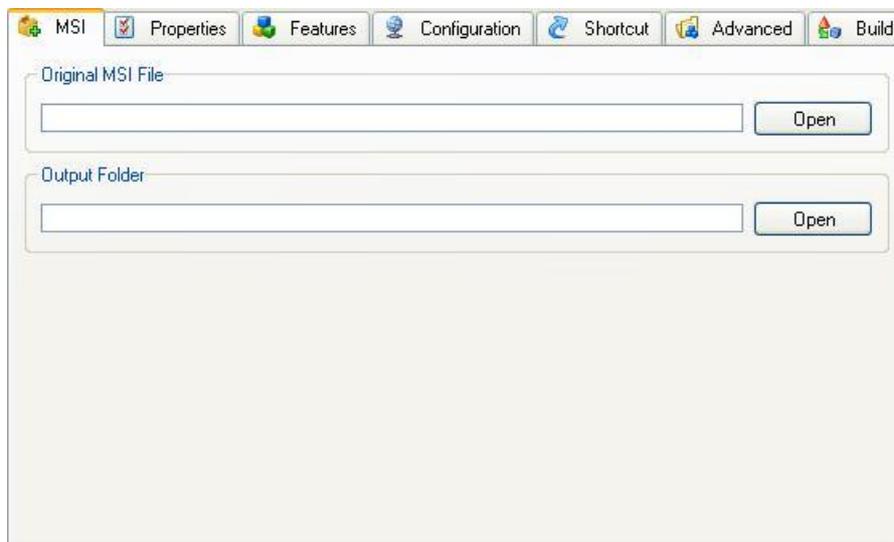
and these buttons:

- **Build:** Becomes enabled when a customized module setup has been specified on the tabs. Click on it to create customized setup installation files.

- **Back:** Click to display the tab to the left of the displayed tab.
- **Next:** Click to display the tab to the right of the displayed tab.
- **Exit:** Click to close the window to unload [Impero Connect Pack'n Deploy](#).

1.3.1 MSI Tab

This is the [Impero Connect Pack'n Deploy](#) window [Pack](#) selection work panel **MSI** tab:



To create a customized [Impero Connect](#) module setup, it must specify the [Impero Connect](#) module `msi` file and the directory in which customized setup installation files shall be saved.

- **Original MSI file [] [Open]:** Click on **Open** to display an **Open MSI File** window to open a [Impero Connect](#) module `msi` file to show its path in the field. You can also drag from Windows Explorer and drop in the field.
- **Output folder [] [Open]:** Click on **Open** to display a **Browse for Folder** window to select the folder in which customized setup installation files shall be saved, e.g., a **Pack Output** folder on the desktop, to show its path in the field. You can also drag from Windows Explorer or the desktop and drop in the field.

NOTE: Until you have specified a valid **Pack** work panel tab.

pre.cmd/post.cmd

You can specify command files to be executed before and after the installation file.

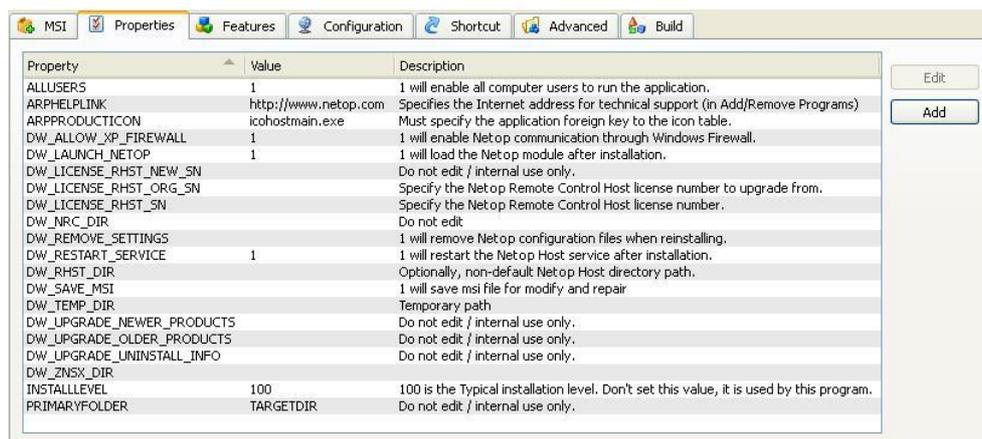
1. setup.exe (the actual installation process) is called.
2. OutDir as the output folder. Or If you are running Pack'n Deploy from a command line, specify `-i OutDir` as a parameter for Pack'n Deploy. All files in this folder are copied to the machine you deploy to.

When the installation is complete, all files in the **AltFiles** directory are cleaned up on the machine you have deployed to.

If you want to keep any of these files on the machine you deploy to after installation, you should add them to the `msi` file.

1.3.2 Properties Tab

This is the **Impero Connect Pack'n Deploy** window **Pack** selection work panel **Properties** tab:



Property	Value	Description
ALLUSERS	1	1 will enable all computer users to run the application.
ARPHIELPLINK	http://www.netop.com	Specifies the Internet address for technical support (in Add/Remove Programs)
ARPPRODUCTICON	icohostmain.exe	Must specify the application foreign key to the icon table.
DW_ALLOW_XP_FIREWALL	1	1 will enable Netop communication through Windows Firewall.
DW_LAUNCH_NETOP	1	1 will load the Netop module after installation.
DW_LICENSE_RHST_NEW_SN		Do not edit / internal use only.
DW_LICENSE_RHST_ORG_SN		Specify the Netop Remote Control Host license number to upgrade from.
DW_LICENSE_RHST_SN		Specify the Netop Remote Control Host license number.
DW_NRC_DIR		Do not edit
DW_REMOVE_SETTINGS		1 will remove Netop configuration files when reinstalling.
DW_RESTART_SERVICE	1	1 will restart the Netop Host service after installation.
DW_RHST_DIR		Optionally, non-default Netop Host directory path.
DW_SAVE_MSI		1 will save msi file for modify and repair
DW_TEMP_DIR		Temporary path
DW_UPGRADE_NEWER_PRODUCTS		Do not edit / internal use only.
DW_UPGRADE_OLDER_PRODUCTS		Do not edit / internal use only.
DW_UPGRADE_UNINSTALL_INFO		Do not edit / internal use only.
DW_ZNSX_DIR		Do not edit / internal use only.
INSTALLLEVEL	100	100 is the Typical installation level. Don't set this value, it is used by this program.
PRIMARYFOLDER	TARGETDIR	Do not edit / internal use only.

It specifies the public properties of customized setup installation files in property table records with these column contents:

- **Property:** Property name.
- **Value:** Property value.
- **Description:** Optionally, a property description.

The table can display public Windows Installer properties whose names do not start with `DW_` and public **Impero Connect** properties whose names start with `DW_`. Private properties that you cannot edit are not displayed. Value options are explained in the table below. Default values are marked with an asterisk.

Property	Value Options
ALLUSERS	<p><None>: No value removes the ALLUSERS property from the table. Only the installing user can run the application.</p> <p>1*: A user with administrator privileges can install the application. All computer users can run the application.</p> <p>2: If installed by a user without administrator privileges, only the installing user can run the application. If installed by a user with administrator privileges, all computer users can run the application.</p>
ARPHHELPLINK	<p>Internet address for technical support. http://support.imperosoftware.com* is the support for Impero Connect Internet address.</p>
ARPPRODUCTICON	<p>Must specify the foreign key to the Windows Installer icon table, which is the primary icon for the Windows Installer package.</p> <ul style="list-style-type: none"> • <code>icohostmain.exe</code>* is the Impero Connect Host and extended Host foreign key. • <code>icoguest32.exe</code> is the Impero Connect Guest foreign key. • <code>icostudents.exe</code> is the Impero Connect Student foreign key. • <code>icoteacher.exe</code> is the Impero Connect Teacher foreign key.
DW_ALLOW_XP_FIREWALL	<p><None>: Disables Impero Connect communication through the computer Windows Firewall.</p> <p>1*: Enables Impero Connect communication through the computer Windows Firewall.</p>
DW_LAUNCH_IMPEROCONNECT	<p><None>: Does not load the Impero Connect module after installation.</p> <p>1*: Loads the Impero Connect module after installation.</p>
DW_LICENSE_RHST_NEW_SN	<p>Do not edit this property. If you are upgrading installations, it specifies the new Impero Connect module license number generated from</p>
DW_LICENSE_RHST_ORIGINAL_SN	<p>If you are upgrading installations, specify the original Impero Connect module license number from which a new license number is generated.</p>
DW_LICENSE_RHST_NEW	<p>Specify the Impero Connect module license number (none*).</p>
DW_NRC_DIR	<p>Do not edit this property that is for internal use only.</p>
DW_REMOVE_SETTINGS	<p><None>: Does not remove installed Impero Connect configuration files when reinstalling.</p>

	1*: Removes installed Impero Connect configuration files when reinstalling.
DW_RESTART_SERVICE	<None>: Does not restart the Impero Connect Host service after installation. 1*: Restarts the Impero Connect Host service after installation to enable any installed or updated Impero Connect Host .
DW_RHST_DIR	You can specify an alternative installed module directory path.
DW_SAVE_MSI	<None>: Does not save the installed module <code>msi</code> file. 1*: Saves the installed module <code>msi</code> file to make it available for modify and repair.
DW_TEMP_DIR	You can specify an alternative temporary directory path.
DW_UPGRADE_NEWER_PRODUCTS	Do not edit this property that is for internal use only.
DW_UPGRADE_OLDER_PRODUCTS	Do not edit this property that is for internal use only.
DW_UPGRADE_UNINSTALL_ALL_INFO	Do not edit this property that is for internal use only.
INSTALLLEVEL	Installable features can be assigned a level from 0 to 32767. A number in the range 1 to 32767 makes features with a lower number except 0 available for installation. 100* is the normal level for a Typical installation.
PRIMARYFOLDER	Must be the key name of a directory that exists in the Windows Installer directory table. <code>TARGETDIR*</code> will typically specify the directory recommended by the manufacturer.

NOTE: The letter combination RHST stands for **Impero Connect Host**. Other letter combinations are displayed for other **Impero Connect** modules.

Edit: Select a record and click to display this window:



- **Property:** Displays the property name.
- **Value []:** You can edit the property value.
- **Description []:** You can edit the property description.

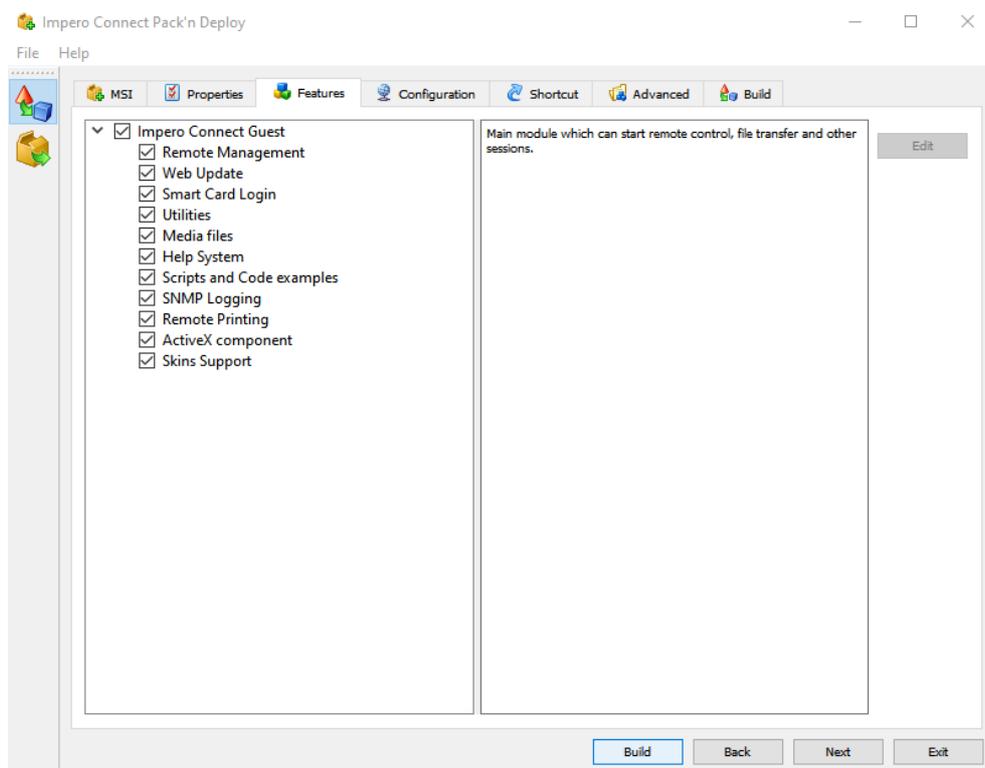
- **Add:** Click to display this window:



- **Property:** Property name.
- **Value:** Property value.
- **Description:** Optionally, a property description.

1.3.3 Features Tab

This is the **Impero Connect Pack'n Deploy** window **Pack** selection work panel **Features** tab:



It specifies the features that are installed from the customized setup installation files.

The left pane contains a check boxed tree structure of available features. Select a feature to highlight it to show its description in the right pane.

Initially, feature boxes are checked according to the [Properties Tab](#) `INSTALLEVEL` property value.

Check/uncheck boxes to install/not install features.

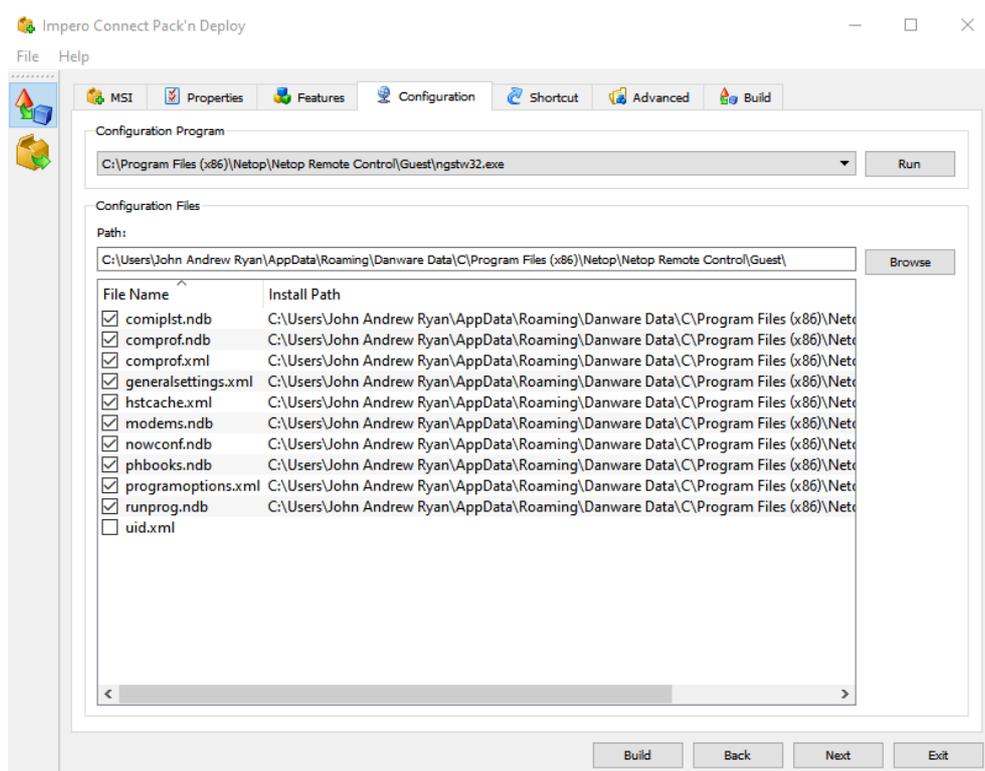
Edit: Click to display this window:



- **Title []:** You can edit the feature title.
- **Description []:** You can edit the feature description.

1.3.4 Configuration Tab

This is the [Impero Connect Pack'n Deploy](#) window [Pack](#) selection work panel [Configuration](#) tab:



It enables replacing selected original MSI file configuration files by the user configuration files of a selected matching **Impero Connect** module to set up installed modules like the selected module.

- **Configuration program** **[Run]**: To replace configuration files, this field must display the program file path of the **Impero Connect** module whose setup you want to copy. Click on **Run** to run the application to set it up like you want installed modules to be set up.

NOTE: **Impero Connect** module setup is written to user configuration files at unload. Remember to unload the configuration program to write its setup to its user configuration files.

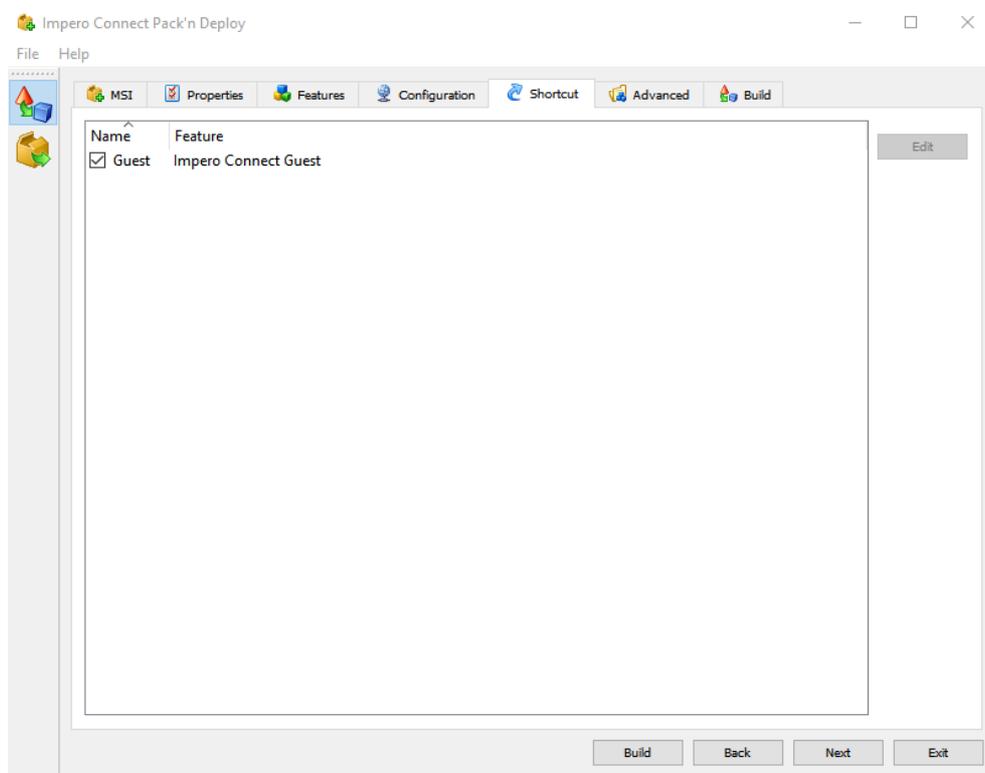
- **Configuration files** **[Browse]** : This field initially displays the **Configuration program** default user configuration files directory path. If the **Configuration Program** user configuration files do not reside in their default directory path, click on the **Browse** button to display the **Browse for Folder** window to select the actual **Configuration Program** user configuration files directory to display its path in the field.

The table below contains check boxed configuration file records with these column contents:

- **File name**: Check/uncheck the box to replace/not replace the file.
- **Install path**: If the File name column box is checked, the replacement configuration file path is displayed.

1.3.5 Shortcut Tab

This is the **Impero Connect Pack'n Deploy** window **Pack** selection work panel **Shortcut** tab:



It enables you to edit the installed Impero Connect module program folder shortcuts.

Initially, it displays records of [Original MSI file](#) shortcuts in a table with these column contents:

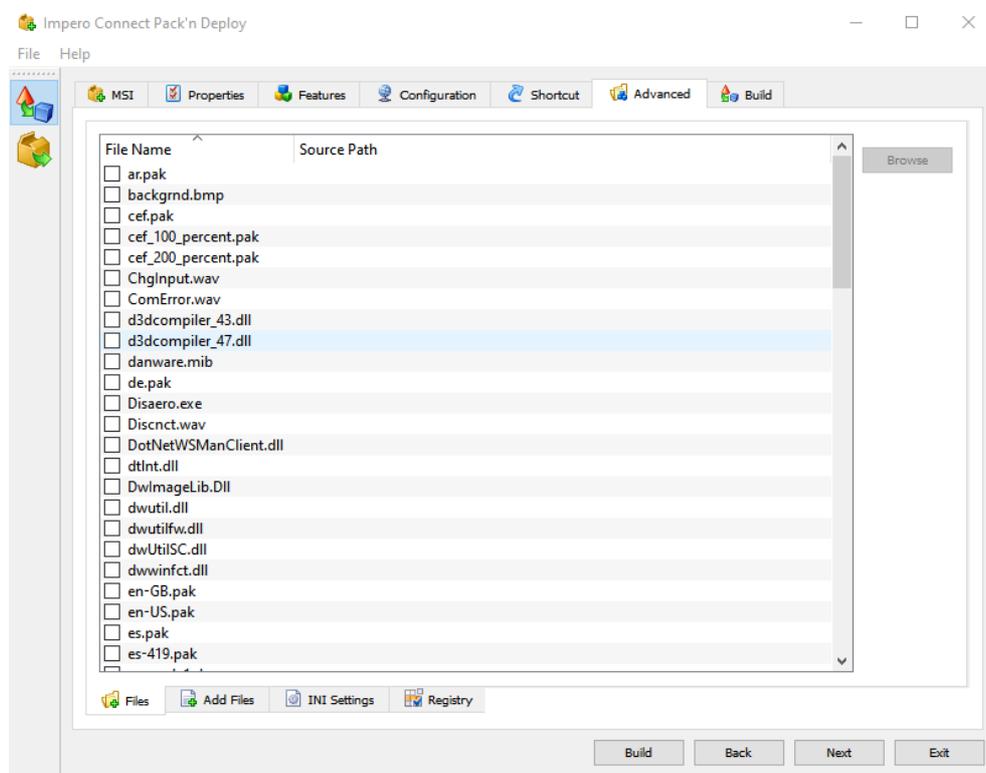
- **Name:** Checkbox (default checked) and shortcut name. Uncheck/check the box to not create/ create the program folder shortcut.
- **Feature:** Name of the [Feature](#) that is loaded by the shortcut.
- **Edit:** Select a record and click on this button to display this window:



- **Name []:** You can edit the shortcut [Name](#).

1.3.6 Advanced Tab

This is the **Impero Connect Pack'n Deploy** window **Pack** selection work panel **Advanced** tab:

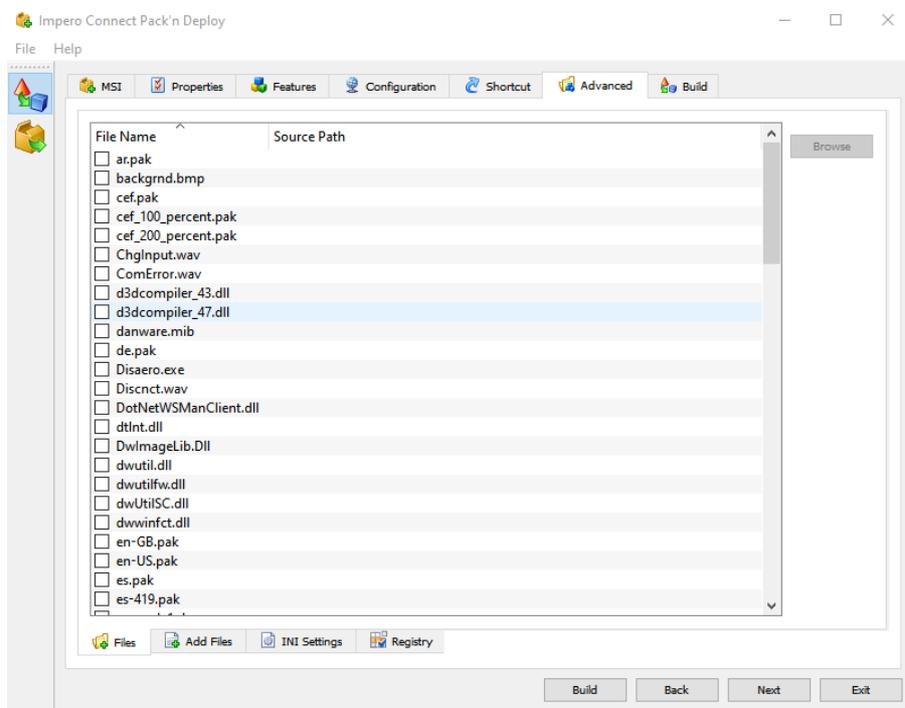


It contains along the lower border of the tab these sub-tabs:

- [Files](#)
- [Add Files](#)
- [INI Settings](#)
- [Registry](#)

1.3.6.1 Advanced Files Tab

This is the [Impero Connect Pack'n Deploy](#) window [Pack](#) selection work panel [Advanced](#) tab [Files](#) sub-tab:



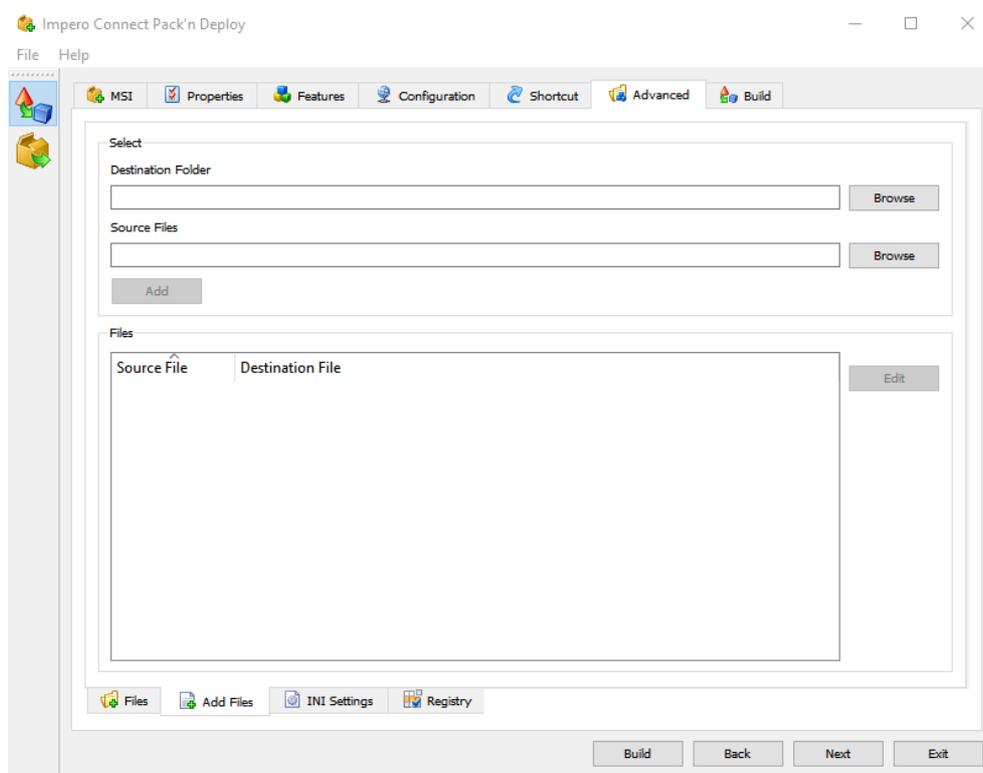
It enables you to replace selected [Original MSI file](#) installed files by specified files.

Its table contains check boxed records of installed files other than [Feature tab](#) program files and [Configuration tab](#) configuration files with these column contents:

- **File name:** Check/uncheck the box to replace/not replace the file by the [Source Path](#) column file.
- **Source path:** Must display a replacement file source path if the [File name](#) column box is checked, see [Browse](#).
- **Browse:** Select a record and click on this button to show a [New Source Path for](#) <File name> window to open a replacement file to display its path in the [Source Path](#) column cell.

1.3.6.2 Advanced Add Files Tab

This is the [Impero Connect Pack'n Deploy](#) window [Pack](#) selection work panel [Advanced](#) tab [Add Files](#) sub-tab:



It enables you to add specified files to a customized Impero Connect module setup in these elements:

Select

- **Destination folder [] [Browse]:** Leave empty to copy specified [Source Path](#) to the folder in which the [Original MSI file](#) program files are installed. Click on **Browse** to show the **Browse for Folder** window to select a local computer folder to show its path in the field. You can also drag from Windows Explorer and drop in the field. You can edit the destination folder path.
- **Source files [] [Browse]:** Click on **Browse** to display a **Source Files** window to open local computer files to show their paths in the field. You can also drag from Windows Explorer and drop in the field. You can edit the field contents to change the file paths.

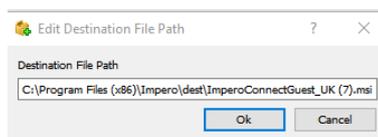
- **Add:** Click on this button to add the [Destination folder](#) and [Source Files](#) field specifications to the [Files](#) section table to empty the [Source Files](#) field.

Files

The table contains the add file records with the following column contents:

- **Source file:** Contains a check boxed source file path. Check/uncheck the box to add/not add the source file.
- **Destination file:** Displays the destination file path.

Select a record and click on [Edit](#) to show this window:

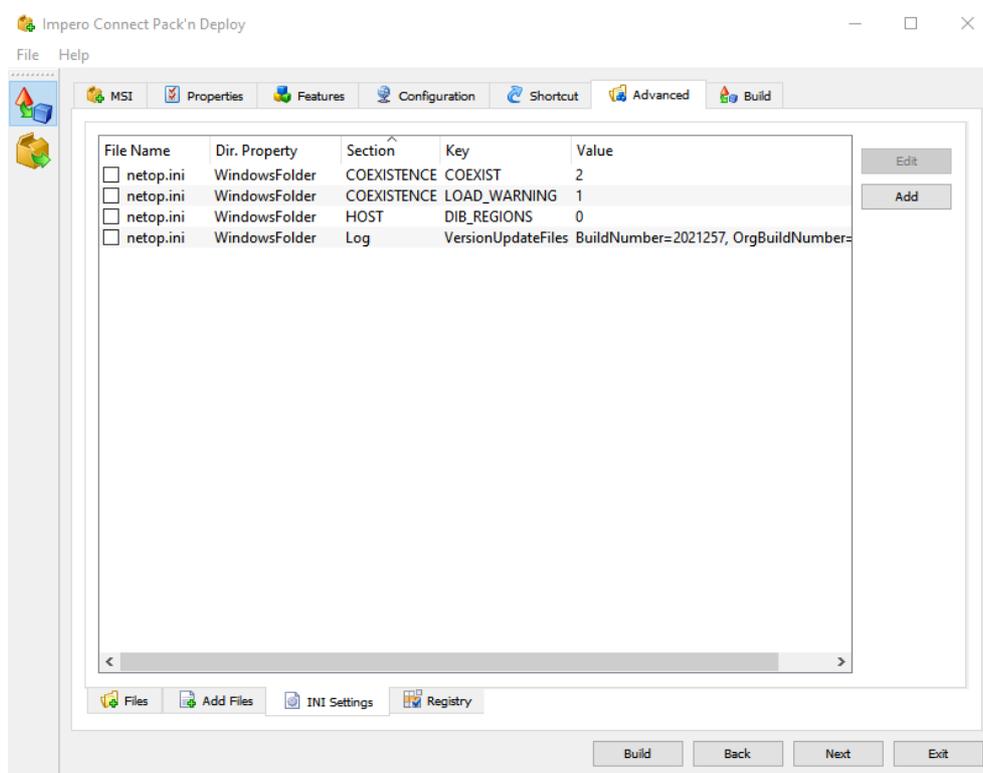


- **Destination file path: []:** You can edit the path to change the destination folder and file name.

NOTE: If a drive with the [Destination file path](#) drive designation does not exist on the destination computer, the file is not added. If other elements of the [Destination file path](#) do not exist on the destination computer, they are created. An added file overwrites an existing file in the same destination computer path.

1.3.6.3 Advanced INI Settings Tab

This is the Impero Connect Pack'n Deploy window [Pack](#) selection work panel [Advanced](#) tab [INI Settings](#) sub-tab:



It enables you to add ini file settings to a customized Impero Connect module setup.

Its table contains check boxed records of local computer netop.ini file settings with these column contents:

- **File name:** Displays the ini file name. Check/uncheck to add/not add the ini file setting.
- **Dir. Property:** Displays the MSI property of the directory in which the ini file resides.
- **Section:** Displays the ini file section name.
- **Key:** Displays the ini file key name.
- **Value:** Displays the ini file key value.

- **Edit:** Select a record and click to show this window to edit the `ini` file setting:



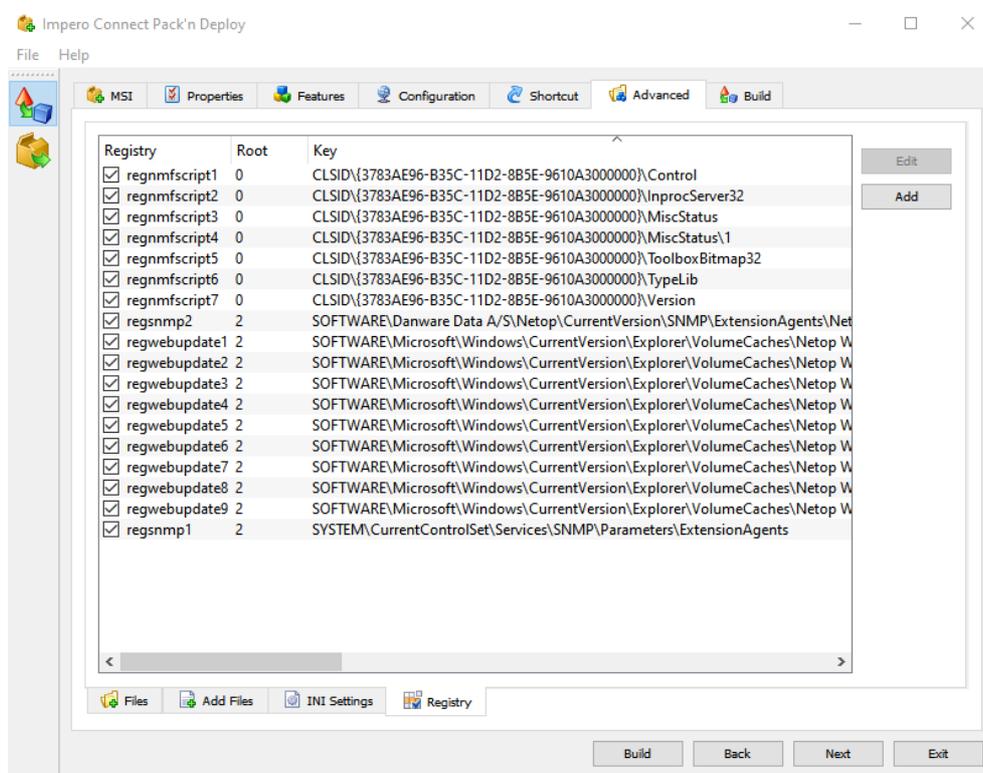
- **Section []:** You can edit the [Section](#) name.
- **Key []:** You can edit the [Key](#) name.
- **Value []:** You can edit the key [Value](#).
- **Add:** Click to display this window to add an `ini` file setting:



- **File name []:** Specify the `ini` [File name](#).
- **Directory property []:** Specify the `ini` file [Dir. Property](#).
- **Section []:** Specify the [Section](#) name.
- **Key []:** Specify the [Key](#) name.
- **Value []:** Specify the key [Value](#).

1.3.6.4 Advanced Registry Tab

This is the Impero Connect Pack'n Deploy window [Pack](#) selection work panel [Advanced](#) tab [Registry](#) sub-tab:



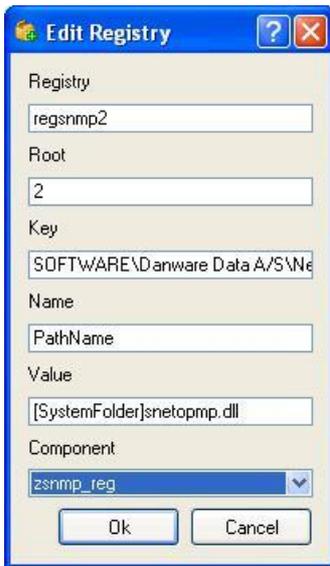
It enables you to change customized setup installation files registry settings.

Warning! Do not change registry settings unless you know exactly what you are doing. Manipulating registry settings can corrupt the computer registry to make the computer non-operational.

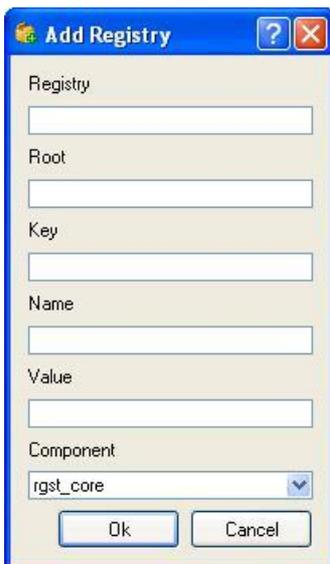
Its table contains check boxed records of the registry settings the [Original MSI file](#) creates when installing with these column contents:

- **Registry:** Displays the registry setting name. Uncheck/check to not create/create the setting.
- **Root:** Displays the [Key](#) path specification number of levels from the registry root level.
- **Key:** Key path.
- **Name:** Key property name unless **(Default)**.
- **Value:** Key property value, if any.
- **Component:** Application component that uses this registry setting.

- **Edit:** Select a record and click to show this window to edit the registry setting:



- **Registry []:** You can edit the [Registry](#) name.
- **Root []:** You can edit the [Root](#) number.
- **Key []:** You can edit the [Key](#) path.
- **Name []:** You can edit the [Name](#) name.
- **Value []:** You can edit the [Value](#) value.
- **Component []:** You can edit the [Component](#) name.
- **Add:** Click on this button to display this window to add a registry setting:

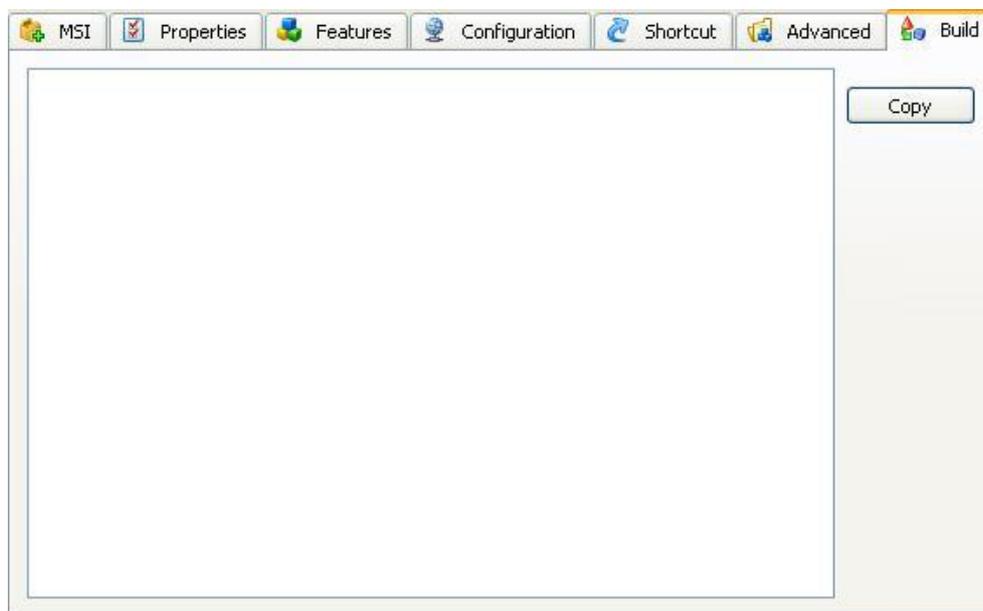


- **Registry []:** You can edit the [Registry](#) name.
- **Root []:** You can edit the [Root](#) number.

- **Key []:** You can edit the [Key](#) path.
- **Name []:** You can edit the [Name](#) name.
- **Value []:** You can edit the [Value](#) value.
- **Component []:** You can edit the [Component](#) name.

1.3.7 Build Tab

This is the [Impero Connect Pack'n Deploy](#) window [Pack](#) selection work panel **Build** tab:



It displays a textual account of a build process.

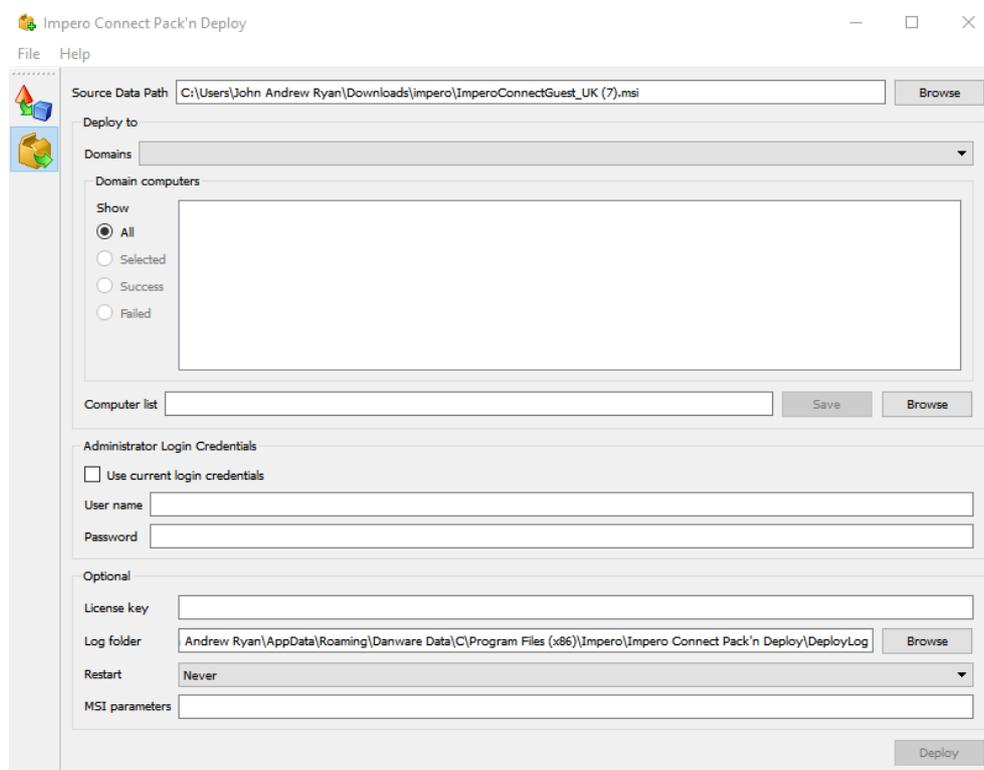
Initially, the pane is empty. Click on the **Build** button to create customized setup installation files in the **Output Folder** according to your tab specifications to show the textual account in the pane.

NOTE: After building, the [Output Folder](#) contains the [Original MSI file](#) and if retrieved from a directory that contains a setup.exe file also this file and an mst transform file. Any __temp... files are removed when [Impero Connect Pack'n Deploy](#) is unloaded.

Copy: Click to copy the textual account to the clipboard.

1.4 Deploy

Click on the [Impero Connect Pack'n Deploy](#) window left selection bar [Deploy](#) button to display these window contents:



The right work panel contains the following elements:

- **Source folder path [][Browse]:** Click on the **Browse** button to display a **Browse for Folder** window to select the deployment source folder to show its path in the field. To deploy a [Impero Connect Pack'n Deploy Pack](#) customized setup [Impero Connect](#) module, select its output folder. Otherwise, select a folder that contains the [Impero Connect](#) module `msi` file. The first found `msi` file in the folder is used. Therefore, we recommend that you verify that the folder contains only one `msi` file.

Deploy to

- **Domain []:** Select in the drop-down box list an available domain to display its name in the field and after browsing the names of its accessible computers in the **Domain computers** pane below. Unavailable computer names display the following 🚫 icon. Available computer names display the

following  icon. To select computers to deploy to click on the available computer names to display the following  icon.

Select **All** or **Selected** to display all or only selected computer names in the pane. The two remaining options (**Success** and **Failed**) are available after deployment.

- **Computer list [] [Save] [Browse]:** To save a computer selection, click on **[Save]** to save the selection in a text file. To apply a saved computer selection, click on **[Browse]** to select a text file to display its path in the field and mark available computer names in the pane that belong to the selection with an  icon.

Credentials

- **User name:** Installing **Impero Connect** modules on remote computers require administrator rights.
Specify the name by which the user that installs on remote computers shall be identified.
- **Password:** Specify the password by which the user that installs on remote computers shall be identified.

Optional

- **License key []:** You can specify the license key by which the **Impero Connect** module shall be installed here or on the [Properties tab](#).
- **Log path []:** Deployment to each remote computer creates a local log file named `<Remote computer name>.log` and if successfully connected to the remote computer a remote log file named `<Remote computer name>.rlg`. These plain text log files tell what went wrong in a failed deployment. You can specify the directory in which these log files shall be saved. `.\log` means a log directory under the **Impero Connect Pack'n Deploy** directory.

- **Restart []**: Select one of the options **Never**, **If needed** or **Always** to make the remote computer do that after installation.
- **MSI parameters []**: To apply selected Windows Installer parameters to installations on remote computers, specify them in this field. To view available Windows Installer parameters, from a command prompt specify `msiexec`.

Deploy

To execute deployment, click on the **Deploy** button.

Progress is indicated by these icons replacing pane  icons:

: Deployment in progress.

: Deployment ended successfully.

: Deployment failed. Read logs to identify what went wrong.

1.5 Silent Install

To run Silent Install (Windows Installer) from a directory that contains **Impero Connect Pack'n Deploy** output files, from a command prompt or in the Run window execute this command:

```
<Directory path>:\msiexec /i <Application.msi>
TRANSFORMS=<Application.mst>
```

NOTE: Application represents the original *.msi file name.

This command installs and sets up the Impero Connect module as specified in **Impero Connect Pack'n Deploy** showing normal installation windows.

You can add these optional parameters to the command in any order:

<code>/quiet</code>	Quiet mode, no user interaction.
<code>/l* <Log file name></code>	Creates an installation log in <Log file name>.

NOTE: To display the full range of msiexec parameters, from a command prompt execute the command `msiexec`.

Example:

```
<Directory path>:\msiexec /i Impero  
ConnectRemoteControlHost_UK.msi /quiet /l* setup.log  
TRANSFORMS=Impero ConnectHost_UK.mst
```

This command installs and sets up [Impero Connect Host](#) from [Impero Connect Pack'n Deploy](#) output files in quiet mode logging the installation in a `setup.log` file.