
Installation

This section describes the steps needed to begin using Intersection Magic.

Intersection Magic may be installed on a stand-alone PC, a network server, and several combinations of the two. Note that sharing a database on a server does not require a network install. Multiple users may access a shared database without performing a shared network install. In order to do this, perform a regular installation at the machine. Once installed create the database up on the network server.

There are no requirements as to where the program is installed. You may select any drive letter and directory. However, there are two restrictions:

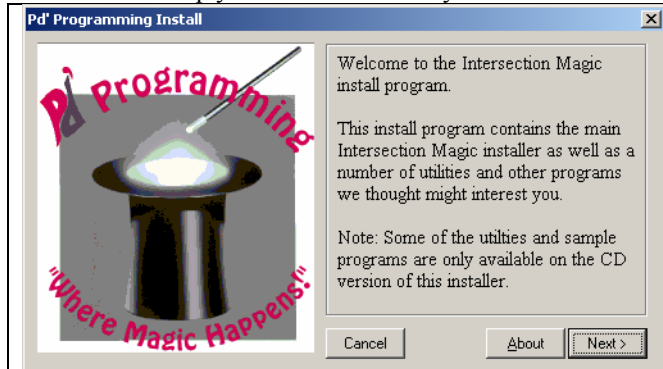
1. Intersection Magic does not support UNC path names. This means that you must have a drive letter assigned to the directory you will be using. For example, you cannot use `\\machine\share\directory`. You must instead use `m:\directory`.
2. Intersection Magic does not support long file (or directory) names. As with most software that falls into this category, Intersection Magic will make use of the shorter name provided by Windows when a long name exists. For example, `c:\program files\my directory` will be referred to as `c:\program~1\mydire~1`. While Intersection Magic will work properly in this type of a configuration, we suggest that the output and prompts from the program will be more understandable if all file names and directory names are limited to 8 characters long.

Notes for a network install

- In order to install IMW on a network, you must have read/write access to the network drive to which you will be installing. This access is not required to install the local files. If you do not have this access, or are not sure about what that means, please contact your network administrator.
- Intersection Magic has been written to be able to share both its program files and its database files on a network server. The shareable files include all of the executable files, the Windows dynamic link libraries, the help system and the database. A number of files must also be kept on a local machine. The files that must remain local are all of the configuration files including the charts, schematics, scripts, and the tutorial files. These files will be installed locally using the CSETUP.EXE install program after the initial installation is completed.
- Intersection Magic does not use any network-specific low-level functions, so it should function properly under most networks. It has been tested and currently works under Windows NT 2000, 4.0, Windows 95 and 98.
- You can install to a network server from any machine, including the server. It is important that all workstations (and the server) see the shared directory as the same drive letter. (i.e. G:\MAGIC\DATA) It is more complex if each machine maps a different drive letter to the shared directory.

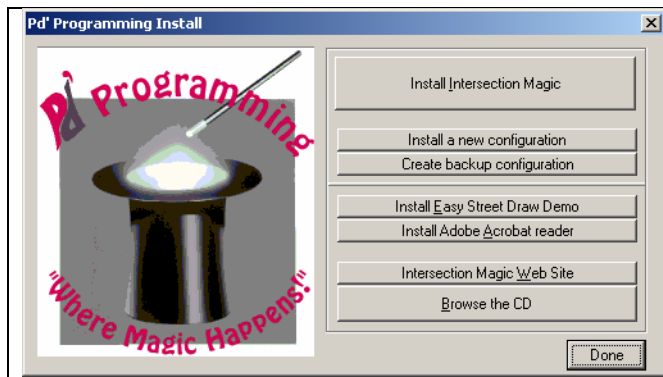
Step by Step Installation

Insert the first install disk or CD into your computer. If the install program doesn't start running after a few moments, select Start / Run and select setup from the install diskette or CD. If this is an upgrade, be sure to backup your \DATA directory first.



The screenshot shows the 'Pd' Programming Install' window. On the left is a graphic of a lit magic hat with the text 'Pd programming' and '"Where Magic Happens!"'. The main text area contains a welcome message: 'Welcome to the Intersection Magic install program. This install program contains the main Intersection Magic installer as well as a number of utilities and other programs we thought might interest you. Note: Some of the utilities and sample programs are only available on the CD version of this installer.' At the bottom are 'Cancel', 'About', and 'Next >' buttons.

Once the install program starts up, you will be prompted with this screen. If you wish to continue the installation process click on the 'Next >' button.



The screenshot shows the 'Pd' Programming Install' window with several options listed in a list box: 'Install Intersection Magic', 'Install a new configuration', 'Create backup configuration', 'Install Easy Street Draw Demo', 'Install Adobe Acrobat reader', 'Intersection Magic Web Site', and 'Browse the CD'. A 'Done' button is at the bottom right.

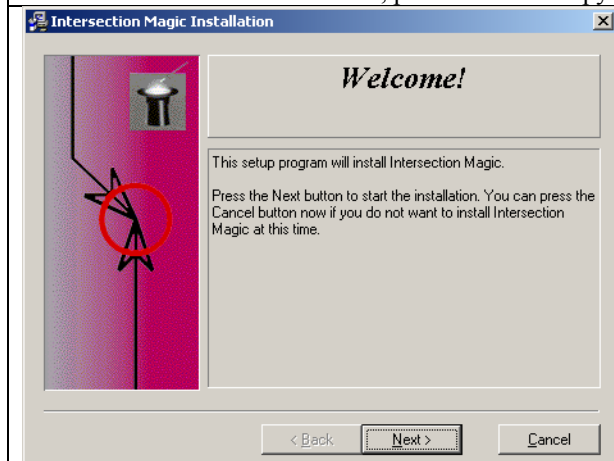
The next screen gives you several choices of programs / utilities to install. If you only wish to install Intersection Magic at

this time, choose the first button.

The other Intersection Magic options are:

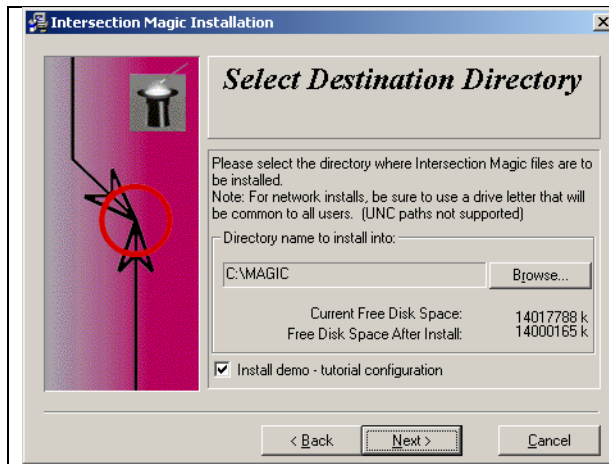
Install a new configuration: This is a quick utility to copy configuration files from their source location to a new directory on the user's local hard disk. For more information, please refer to Csetup.exe.

Create backup configuration: This is a program used to make copies of critical configuration files. It will prompt the user for a location to place these files. For more information, please refer to CopyCfg.exe.



The screenshot shows the 'Intersection Magic Installation' window. It features a graphic of a magic wand on the left. The main text area says 'Welcome!' and 'This setup program will install Intersection Magic. Press the Next button to start the installation. You can press the Cancel button now if you do not want to install Intersection Magic at this time.' At the bottom are '< Back', 'Next >', and 'Cancel' buttons.

This is the welcome screen to begin the installation of Intersection Magic. If you wish to continue, click on the 'Next >' button, otherwise you have the option to cancel.

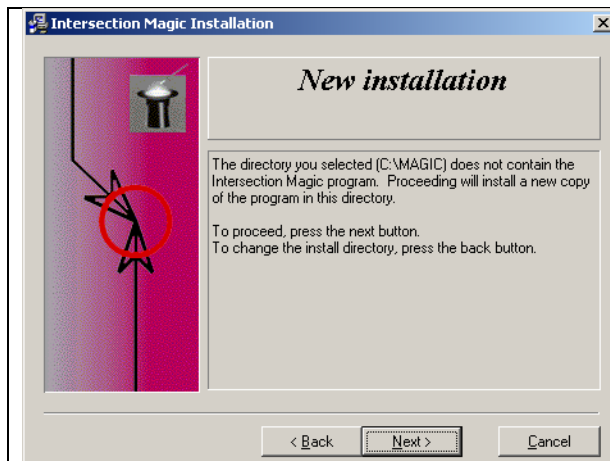


This screen will prompt the user to choose a directory to install to. The default will be C:\MAGIC. If you are installing the program on a network, you will need to pick that

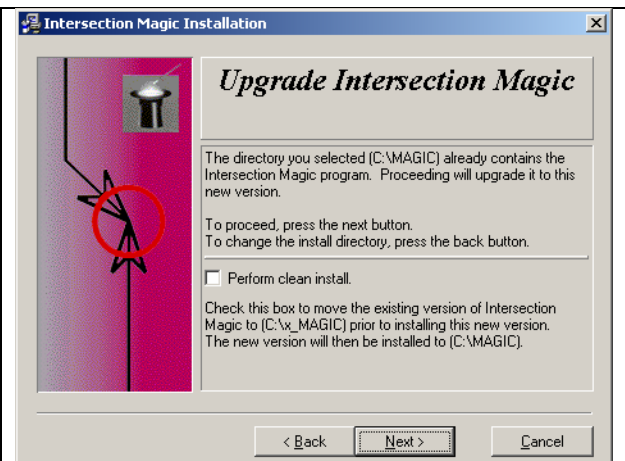
network drive letter.

To enable users to have the demo/tutorial, be sure the “install demo/tutorial files” box is checked.

Click the ‘Next >’ button.



If this is a new installation, and the install program doesn't detect an old copy of the program, you will be prompted with this screen. Click the ‘Next >’ button.

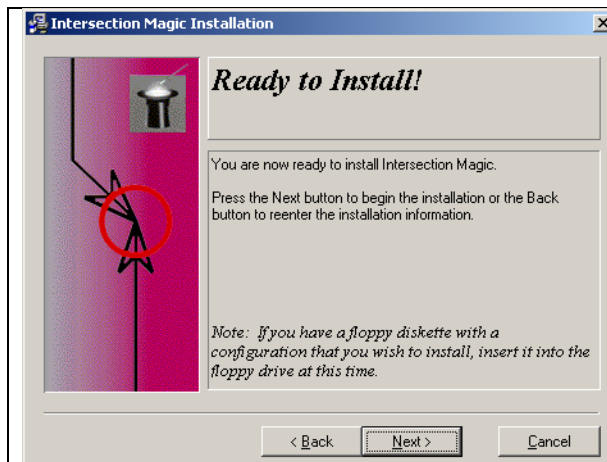


If this is an upgrade, you will be prompted with this screen. If you wish to overwrite and delete all existing information from previous versions of the program, click on the option to ‘perform clean install.’ Please read the notes on the screen regarding this. Click the ‘Next >’ button.



If this is a new install, you will be prompted for your registration information. The CD sleeve provided with the program will have your jurisdiction name and your password. (Each version will have a new password corresponding to your jurisdiction name). Type in the jurisdiction name shown on the CD sleeve, and then the key below it. These must be typed in EXACTLY as

specified. If you have been provided with a trial version of the program, you will need to enter the expiration date as well. Registered users may obtain passwords anytime from our website www.pdmagic.com.

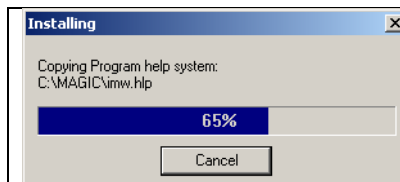


Now the program is ready to install and copy the Intersection Magic files to your machine. You may go back to reenter any information.

If this is an

upgrade, and you have a floppy diskette with your configuration on it, insert that disk into the floppy drive now.

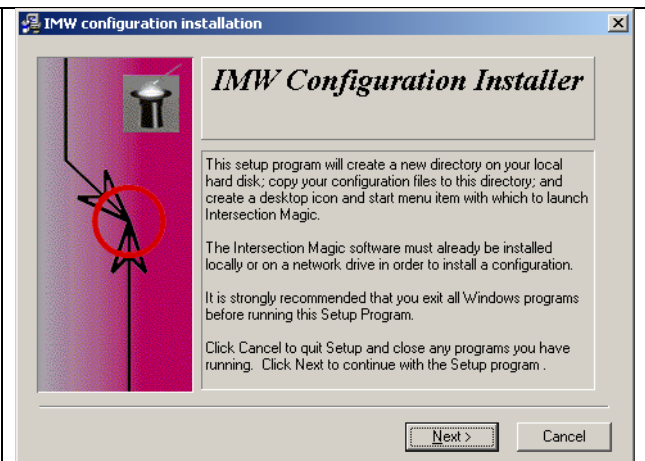
Click the 'Next >' button.



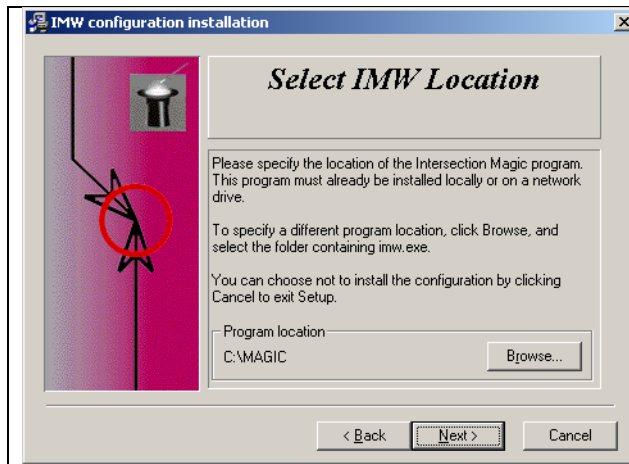
Once started, you will see a percentage bar letting you know how far along the install is.



Once Intersection Magic has been installed, you will see this screen letting you know it has finished. If this is an upgrade, or demo you are now ready to run. If this is a new install and a configuration has been done by Pd' Programming, the configuration files will still need to be copied to the local machine. This can be done by running CSETUP.EXE found on the CD.



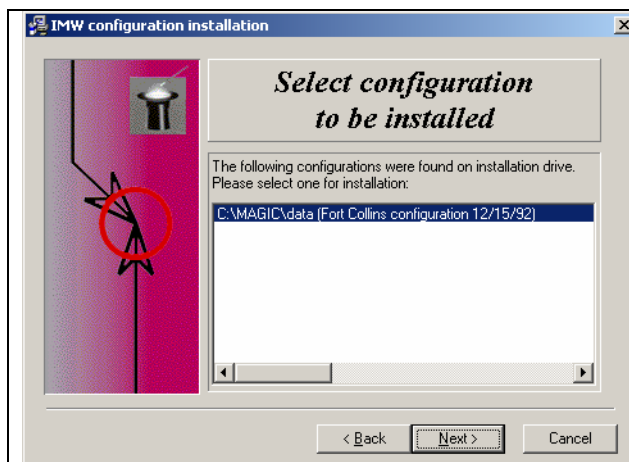
If configuration files are found on your install CD, you will be prompted with the IMW Configuration Installer in order to copy them to the machine. Click the 'Next >' button. If you have installed the program on a network, the configuration files will need to be copied onto each individual local machine. This can be done by running CSETUP.EXE (found on the CD) at the local machines.



This screen prompts the users to choose where the Intersection Magic program has been installed. Click the Browse button to

select the folder containing the IMW.EXE file.

Click the 'Next >' button to continue.



Next you will be prompted with a list of configurations the program is going to install. Most likely you will only see

one listed here, but multiple configurations might be listed.

Click the 'Next >' button.



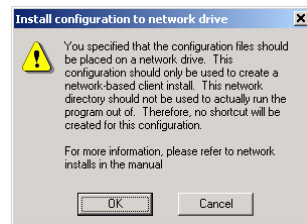
Now you will be prompted for the name of the start menu that will hold the shortcuts to Intersection Magic. By default shortcuts will also be

placed on the desktop.

If you wish to create additional shortcuts for IMW, be sure to set the target directory to `\MAGIC\IMW.EXE`, and the start in directory to `\MAGIC\DATA` where "data" is the directory holding the configuration files.

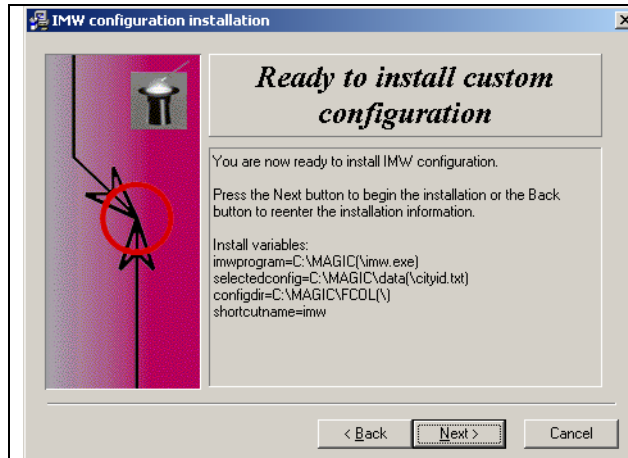
If installing the configuration on a network, change the configuration folder to a network subdirectory `\DATA`. You will see the following

warning window:



Click o.k. then,

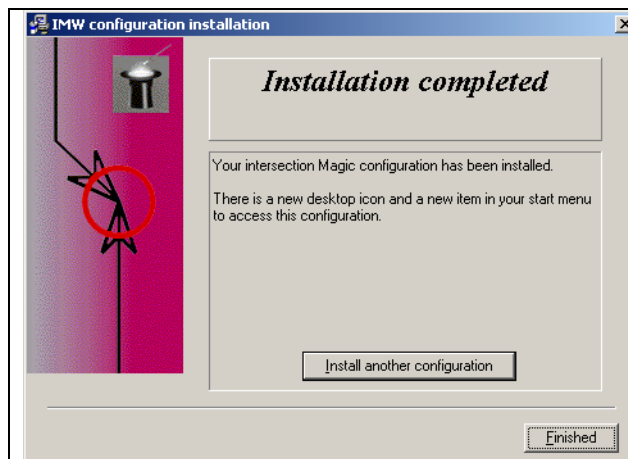
Click the 'Next >' button.



This screen will let you view the details regarding the installation of the configuration files. You may choose the '< Back'

button to change any information.

Or select 'Next >' to continue the installation.



Now the installation is complete. At this point, you may wish to install a second configuration if necessary, otherwise

the installation is complete.

You may use either the new shortcuts or menu items to start the program. The IMW icon will start the program ready to run with your configuration.

Setting the configuration files

In most cases the configuration will be set during the install process. However, if the configuration is installed separately, or if you create your own configuration, you will need to tell the program where to find certain files. This process is done under the Utilities / Configuration / Defaults File Names menu. In the lower left corner of the box is an option to Clear Cfg, go ahead and select button. The first file that needs to be set is lookups. Click this button and choose the CITY.LUC file (where CITY is your configuration name). After you select this

file, the rest will be filled in for you. Once you close this box, you should be ready to create a database, and import data. For more information on the File names box.

Network administration

Auto update

A new auto update feature allows network administrators to have new charts, filters, configuration files, reports, schematics, GIS enhancements, etc. distributed automatically without interacting with any client computers. These features are only needed, and therefore only work when the network installation type 2 is chosen. That is, when the program is shared on the server, along with the database.

When the software is installed, it creates a "MASTER" directory under the main MAGIC directory. This MASTER directory contains all the files and sub-directories that the program expects to find in each DATA directory. (client system). This includes, but is not limited to, charts, schematics, scripts, maps, etc. Whenever a new version of the software is shipped, these files may need changing.

A new software install also includes a "GIS" directory. This directory contains any files needed by the GIS system (currently ArcView). Again, since an upgrade may require an updated ArcView extension, these files reflect the latest GIS extension files.

The final important directory on the server is the DATA directory. Which, although not what its name describes, contains the configuration files for the system. All users should have exact copies of these files on their system at all times. These are the files that are unique to each installation. They are the "custom configuration" files that you paid us to create.

So, how to update each of these directories including the ArcView directory? Each of these directories contains a file with the extension ".upd" They are named _Master.upd, _Config.upd and _GIS.upd. Each of these files contains a line that indicates the last time that "source" directory was updated. That line is in a section that looks like this:

```
[general]
lastupdate=07/01/2000
```

Whenever Intersection Magic starts up, it checks the dates on the files in these directories (if they exist) and if the file exists, and the date is new than a matching entry in the current imw.ini, the entire directory tree is scanned for newer, updated files. The imw.ini will then update its date and look like this:

```
[Updates]
Master=07/01/2000
GIS=07/01/2000
Config=07/01/2000
```

The GIS section is especially interesting, because it updates into the arcview directory containing a BIN32 / LIB32 / and EXT32 sub directory structure.

Using this system can assure that everyone on the network using Intersection Magic stays current. If problems arise from autoproccessing, there are command line parameters that can turn off all the options individually. See command line options in the index.

Sharing the database

In order to share an IMW database, the directory containing it must first be made public to all those in need of access. In IMW, choose Utilities / Database / Create and create a database in this directory. That database is now created, (empty) and selected as the default. It can be treated as any other database. The first step is to import data into it using the Utilities / Database / Import option.

Any other workstations with access to that network data directory may use that database by simply selecting Utilities / Default / File names from the menu and selecting the appropriate database from the network drive. As each user creates reports and diagrams using this database, a record is kept of their access to the file.

Some simple rules apply to database sharing.

- When a user is creating a report or viewing a diagram, they are said to be 'reading' the database.
- When a user is importing, changing streets, editing a record, or otherwise changing data in the database, they are said to be 'writing' to the database.
- Many users may be reading at the same time.
- The program will not allow a user to begin writing while another user is reading or writing to the database.
- The program will not allow a user to begin reading while another user is writing to the database.

During some operations the user may be notified that an action can not be performed because the database is being used by another workstation. The user must wait until that other workstation is done using the database.

Occasionally the program will incorrectly report that another workstation is using the database. This will generally occur if the program has crashed while accessing the database, or if the system was rebooted without exiting the program. In these situations, the user must reset the user list.

Reset users list

The user list is maintained in a file with the extension SEM for semaphore. If the file doesn't exist, it is created automatically when the first user opens the database for reading or writing. After it is created, it always contains a list of the users currently accessing the database. This list may be viewed by selecting Utilities / Network / Current users, and choosing the correct SEM file. The file name will match your crash database name, except for the SEM extension.

In the event that this list reports erroneous users of the database, it must be reset. Resetting the SEM file is the same as erasing it. Resetting (or erasing) this file while a user is accessing the database will eventually cause a crash in the program. Once all other users have closed IM, (this means DOS and Windows version users) and all diagrams in the current session have been closed, the SEM file may be reset. This is done by selecting Utilities / Network / Reset user list. Since this is a potentially dangerous thing to do, the user will be prompted for confirmation several times prior to the actual reset.

Setup Program Details

Setup.exe ("Install Intersection Magic")

This is the main install program. It requires copycfg.exe and csetup.exe to be available in the same directory. This install program copies all of the program and support files. By default, it will not create icons or install configurations. Optionally, it can do the following:

- Automatically call CSetup.exe to install the demo / tutorial - It does this if the demo checkbox is checked and a demo directory exists as a subdirectory under the install directory. When selected, it does this with only a brief progress box, no other user interaction is available. The command line it uses is:
**/SILENT IMWEXE=%MAINDIR%
CONFIGSOURCE=%INST%\DEMO
CONFIGDEST=%DEMODIR%
SHORTCUT=IMW_Demo-Tutorial"**
- Call Csetup.exe in interactive mode to install additional custom configurations. It does this only if a cityid.txt (configuration) exists in one of several directories:
- InstallDrive\data – This is the preferred location for configuration files shipped with the program on CD.
- A:\data – This is used when doing a clean install, or re-installing using a "program only" CD.
- InstallDrive\configs – When this directory exists, the install program will scan all of its subdirectories for cityid.txt and make all of them available for installation. It will generally only be used for in-house, trade show, or consultants.
- InstallDir\data – this option should only be used for Internet posted full installs. This should generally be avoided.
- Call CopyCfg.exe to allow the user to copy their existing configuration to a floppy or other directory. It provides this as an option when a user chooses to perform a "clean" upgrade. This means that a new directory and files are copied rather than simply adding to files in the existing installation. Once these files are copied to a floppy, the install proceeds and the user may choose this floppy as the source for the configuration "to be installed".

Available options and specifics:

- This program must be run from a drive letter, not a UNC. (a UNC starts with [\\machinename](#) followed by a share name)
- Passing /nc on the command line prevents the search for imw.exe on the local drive. This is a rarely needed feature that was in response to a single complaint that the program stalled while this search took place. If used, the default directory will simply be c:\magic.
- When the program searches for imw.exe, it ignores instances where the following are in the found path: "recycle"; "c:\units"; "c:\temp"; "imwdist". This is to avoid in-house problems when testing the installer.

- The demo is placed in a subdirectory of the selected program directory called "demo", unless the program is installed to a network drive. In the latter case, the demo directory is placed in a sub-directory of "c:\imlocal".
- When a "clean" install is performed, the existing directory is renamed with an identical name, except it is prefixed with "x_". (I.e. c:\x_magic). The imw.exe is also renamed to x_imw.exe so that it will not be found by future installs. Finally, a log file is maintained called "x_imw.log" that logs each "clean" install.
- The registration screen does no validation. It simply sets the appropriate variables in the win.ini file. It also creates reginfo.ini in the install directory for use by Intersection Magic.
- The program associates ".dgm"; ".dgp"; ".cid"; ".pds"; ".pdc"; ".luc" with the currently installed imw.exe.

Csetup.exe ("Install a new configuration")

This program is used to copy configuration files from their source location to a new directory on the user's local hard disk. A shortcut is then created (or updated) on the desktop for this configuration, and another is created under Start / Programs / Pd' Programming. This program may be executed from the command line (no validation) or interactively, with plenty of validation.

- Command line: When using the command line, the following parameters are required:
- /SILENT – Causes the program to run without user interaction or display
- IMWEXE – Must point to the directory containing IMW.EXE (I.e. c:\magic)
- CONFIGSOURCE – Must point to the directory containing a configuration that includes cityid.txt. (I.e. a:\data)
- CONFIGDEST – Must specify a non-existing directory that the setup program will create and copy files into.
- SHORTCUT – The name to appear under the icon and in the start menu. Since the command line is delimited with spaces, use underscores to indicate spaces when using this parameter. Note: This parameter will be overwritten if a value exists in the cityid.txt file for "name".

Interactive: The interactive version performs the following steps:

1. Checks to see if the value specified in win.ini for "program" specifies an existing imw.exe. If so, it uses that as the "install to" default directory. Otherwise, it searches the hard disk for other imw.exe files and provides the user with a list to choose from. (This list will not include files found in "recycle" folders) This will be the value that the shortcut will point to.
2. Creates a list of directories containing cityid.txt files. Presents these to the user for selection. It looks in the following locations only:
 - InstallDrive\data – This is the preferred location for configuration files shipped with the program on CD.

- A:\data – This is used when doing a clean install, or re-installing using a "program only" CD.
 - InstallDrive\configs – When this directory exists, the install program will scan all of its subdirectories for cityid.txt and make all of them available for installation. It will generally only be used for in-house, trade show, or consultants.
 - C:\configs – When this directory exists, the install program will scan all of its subdirectories for cityid.txt and make all of them available for installation. It will generally only be used for in-house, trade show, or consultants. It may also be handy when walking someone through an install without a floppy.
 - InstallDir\data – this option should only be used for Internet posted full installs. This should generally be avoided.
3. Reads the following from the selected cityid.txt: config prefix; short cut name; config directory (same as prefix).
 4. Sets the config directory to be either a subdirectory of the install directory (if imw.exe is on local hard drive) or to a subdirectory of c:\imlocal.
 5. Replaces illegal file name characters in short cut name with "-".
 6. Creates shortcuts in the common folders of the desktop and the start menu using the data gather in the prior steps.

CopyCfg.exe ("Create backup configuration")

This is a program used to make copies of critical configuration files. It searches for cityid.txt and then makes a list of other files in that directory that comprise a configuration. It then adds:

- charts*.chd – Chart definitions
- charts*.cht – Chart settings templates
- *.imf – Filters
- *.rpt – Report files
- cityid.txt – Configuration identifier

It then prompts the user for a location to place these files. That location will always have \data\ placed in front of it. The default is a:\.

These files are then copied to the specified directory.

The Csetup program can use the resulting directory for its configuration source. Note that this program does not copy database files, volume data files, existing reports, or any files not listed in the dialog box presented prior to copying. Data must be preserved through other methods.