

Internet piracy of software and content products can take many forms:

- Auction Site Piracy
- Classified Ad Sites
- Newsgroups Piracy
- FTP (File Transfer Protocol) Sites
- P2P (Peer-to-Peer)
- Torrent Sites
- Sharehosting Sites
- IRC (Internet Relay Chat)
- Cracks/Serials Sites

### **Auction Site Piracy**

Auction site piracy occurs when the seller offers software and/or content on physical media for sale in an online auction. Some examples would be a counterfeit copy of a software program or an electronic archive of several years' worth of magazines or school textbooks in PDF format on DVD. The seller will often attempt to sell multiple copies simultaneously and as quickly as possible to avoid detection by SIIA and other enforcement agencies. Such sellers may also attempt to collect the names and e-mails of losing bidders and contact those bidders in an attempt to sell additional copies. SIIA has a good working relationship with many major auction sites (such as eBay, iOffer and Amazon) and is able to remove these pirate auctions shortly after they have been posted. For more information on how to distinguish legal software from illegal software being offered on an auction site, see SIIA's Buying Guides.

### **Classified Ads Sites**

Classified ads, which began in newspapers, allow private individuals to solicit sales for products and services. The concept has found its way onto the Internet, and there now exist hundreds of sites dedicated to it (an example would be Craigslist). Due to the perceived anonymity of the Internet, many pirates use these sites to post listings advertising the sale of pirated copies of software and/or content, typically providing an email address or website address where they can be contacted to facilitate a sale.

### **Newsgroups Piracy**

A newsgroup is a location within the Usenet system for messages posted from users via the Internet in different locations. Newsgroups are similar to discussion forums on websites. Newsreader software is commonly used to read newsgroups. The technology used to run such network services allows for files to be attached to messages, or "posts," on the newsgroup. There are thousands of newsgroups dedicated to distributing pirated copies of software and/or content.

### **FTP (File Transfer Protocol) Sites**

FTP is a network protocol used to transfer data from one computer to another over the Internet. An FTP program allows a user to upload files to and download files from a site. Pirates who transfer illegal copies of software and/or content to one another commonly use FTP sites because it is efficient for transferring large files and most FTP servers support some form of anonymous login to allow any user to access the site freely and download illegal copies of software and/or content.

### **P2P (Peer-to-Peer)**

Peer-to-Peer (P2P) technologies allow users to transfer files to each other. There have been and continue to be a variety of applications created to take advantage of this technological concept, each with their own network of users. Napster, KaZaA, Morpheus, Gnutella, LimeWire and Grokster are just a few of the dozens of applications that have been or continue to be used to transfer files over the Internet.

Because of the distributed and often anonymous nature of P2P applications, they have been widely used for the distribution of pirated copies of software and/or content. P2P applications have also been popular because they are basically "one stop shopping"-- a user can find just about anything they are looking for, including music, software, books, movies, games, etc.

### **Torrent Sites**

A unique variant of P2P technology, BitTorrent is commonly used for distributing very large amounts of data (whereas previously P2P applications were primarily used to distribute files of smaller sizes). BitTorrent has grown in popularity to become one of the most common protocols for transferring large files; by some estimates it accounts for almost 35% of all traffic on the entire Internet.

To distribute a file, a user must first create a small file called a "torrent." This file contains information about the files to be distributed and about the "tracker," the computer that will be assigned to coordinate the file distribution. Other users that want to download the file must first obtain the "torrent" file for it, and connect to the specified "tracker," which tells their computer from where to download the pieces of the file.

Torrent Sites are websites that allow users to search or browse through a library of torrent files for nearly anything-- music, software, books, movies, games, etc. The user downloads the torrent file and runs it through a BitTorrent application, which connects to the tracker(s)

specified in the torrent file, from which it receives a list of other users currently transferring pieces of the file to each other. The client connects to those users to obtain the various pieces. The more users that are connected to a particular torrent and tracker, the exponentially faster the download of that file becomes. Therefore, it is easy to see how quickly extremely large files can be downloaded in this manner.

### **Sharehosting Sites**

Sharehosting sites are websites which allow internet users to easily upload one or more files from their computers onto the sharehosting site free of charge. Some examples are RapidShare, SendSpace and MegaUpload. Most of these sites simply provide a website address (URL) which can be given out freely to other users who can then access the file at a later point in time. An even greater number of websites and internet forums exist solely to archive and share such links-these sites are often referred to as "link sites" or "indexing sites." This type of file distribution has grown to such a large volume that it has eclipsed the remaining P2P filesharing services.

### **IRC (Internet Relay Chat)**

Internet Relay Chat (IRC) is a program designed to facilitate real-time Internet text messaging (chat) as well as file-transfers. It is mainly designed for group communication in various discussion forums known as "channels", but it also allows one-to-one communication between computers and file transfers via Direct Client-to-Client (DCC) connections. Pirates operate their own channels which they use to distribute pirated copies of software and/or content through their computers or computers which they have control over, often referred to as "bots." A bot is a term for a computer whose sole function is to maintain large volumes of file storage and respond to users' commands to distribute files via DCC file transfer.

### Cracks/Serials Sites

Another form of piracy that is prevalent on the Internet is the use of circumvention technologies to provide access to software. These technologies are commonly referred to as "cracks" and key-generators. "Cracks" are small files that alter the source code of a software program, circumventing the digital rights management (DRM) which is designed to limit the installation of software to a specific number of machines, as established in every software programs' end-user license agreement (EULA). A key generator or "keygen" is a program that uses a mathematical algorithm to create fake, yet still valid, serial numbers and CD keys for use with legitimate copies of software, providing another method for bypassing DRM.