

# White Paper: How To Download Content From The Internet

*Teaching you the best techniques for downloading content from the internet*



Brought to you by the authors of DownloadStudio – the award-winning, multi-featured download manager that gets everything on the web.

Conceiva Pty. Ltd. <http://www.conceiva.com>

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# Downloading Content From The Internet

*Teaching you the best techniques for downloading content from the internet*

## **1. Introduction**

Downloading content from internet has become a commonplace activity for all internet users – in the home, in business and in schools. All internet users download content from time to time – typically programs, games, pictures, music, video and documents.

Downloading content can be troublesome. Downloads can fail. Downloads can take excessive time. Downloads can be password-protected. Some content cannot be downloaded using your web browser.

A download manager is a utility designed to fix all the problems you may be having downloading content from the internet. They have quickly become a must-have utility for all internet users. Download managers can accelerate your downloads, allow you to resume broken downloads and contain numerous features that allow to you get hard-to-get files from the internet.

This white paper presents a series of tutorials that will teach you how download various types of content from the internet.

## 1.1 Key terms

It is assumed that you have a reasonable knowledge of the internet when reading this white paper. Several terms used in this white paper are explained below:

### *URL*

A URL (or Uniform Resource Locator) is the location of a resource on the internet. The format of a URL includes the protocol (e.g. `http://`, `https://`, `ftp://`, `mms://`, etc.), the domain name (or IP address), and additional path information (or folder & file name). A URL may address a web page file, a program file, an image file, a CGI file, or any other type of file, folder or program.

Download managers use URLs to find the location of files, web sites and FTP sites that you want to download. You input URLs when download content from the internet.

Examples of URLs are:

- `http://www.conceiva.com/downloads/downloadstudio2200.exe`
- `ftp://ftp.microsoft.com/pub/msoffice.zip`
- `http://www.google.com`
- `http://www.itunes.com/hiphop/newtrack.mp3`

### *Servers, Domains and Groups*

A server name represents a single web server. For example, "www.conceiva.com" and "www.google.com" are examples of server names. Even "google.com" counts as a different server name since it is not the same as "www.google.com" - even though if you visit "http://www.google.com" and "http://google.com" in your web browser you may see the same content.

A domain name is the most general part of a server name. For example, "conceiva.com", "google.com" and "zdnet.co.uk" are examples of domain names. When downloading files, if you set the download job to span across Domains, it will download files from any servers that share the same domain name. For example, "www.conceiva.com", "images.conceiva.com" and "downloads.conceiva.com" all belong to the same domain "conceiva.com".

A group name refers to any number of servers that share the same name regardless of the country-specific part of the name. For example, "www.conceiva.net", "ftp.conceiva.org.au" and "images.conceiva.co.jp" would all be part of the same group, because they all contain the word "conceiva" directly before the country-specific part of the name.

Using the URL "http://www.conceiva.com/images/logo.gif" as an example:

- "www.conceiva.com/images" is the folder name
- "www.conceiva.com" is the server name
- "conceiva.com" is the domain name
- "conceiva" is the group name

### *MIME Type*

MIME types are a standard for defining the types of files attached to standard internet mail messages and on web servers. The MIME standard is used by software applications such as download managers to communicate with web servers to determine what type of file is being transferred. The MIME type of a file can be a more accurate method of determining the type of a file rather than using the file extension of a file to guess the type of file on a web site.

Examples:

- HTML files have a MIME type of "text/html"
- JPEG files have a MIME type of "image/jpeg"

### *RSS feed*

RSS feeds have become a popular way for web sites to inform you about its latest news or its latest content. RSS stands for Really Simple Syndication and is an XML based file that contains information and links about content from a web site. Popular RSS feeds are latest headlines from news web sites, latest music titles from music sites, latest company news from business web sites, latest topics from blogs, and more.

### *Podcast*

Podcasts are RSS feeds that contain information and links to audio and video files. They have become very a popular way to get your favorite music, due mainly to the popularity of portable media players such as Apple's iPod.

### *Streaming media*

Streaming audio and video is used to view movies and listen to music from the internet. Media players such as Windows Media Player and Real One Player can connect to streaming media servers and play streaming audio and video. Streaming media servers send audio and video as small packets of data to your media player on your computer. Once played, the packets of data are discarded – so there is no way for you to save the file using your web browser or media player.

## **1.2 Important: Notice about copyright ownership**

Download managers, including DownloadStudio, are designed to assist you to download files from the internet. If you do not own the copyright to these files or do not have permission to copy these files from the copyright owner, you may be violating copyright law and be subject to payment of damages and other remedies. If you are uncertain of your rights, contact your legal advisor.

All examples of downloading that are contained in this White Paper are for illustration purposes only. These URLs (or web site addresses) may or may not exist. The use of the example URLs does not imply that you have consent to download content from them.

## 2. Various types of content to download

The internet has many different types of files and content that you may be interested in downloading. Some popular examples of content are:

- **Programs.** Programs are executable files that usually are downloaded and installed onto your computer. Programs can be large files that take significant bandwidth and time to download.
- **Images & pictures.** Images are located all over the internet on web sites and ftp sites. They are probably the most popular content downloaded by internet users. The popular image file formats are JPEG, GIF and PNG. Images are typically small files (< 100 kilobytes) so that they can be displayed quickly in web browsers. Images can be small thumbnails or larger-sized images. Typically, internet users want to download the larger-sized images.
- **Movies & video.** Video content has become very popular for internet users who have broadband connections. Video content is either streamed onto your computer from a streaming media server into your media player, or it is a file that can be downloaded and then played in your media player. Video content is typically very large in size and can take significant bandwidth and time to download. Video content that is streamed into your media player cannot be downloaded in the traditional file-based manner using your web browser or media player.
- **Music, audio & podcasts.** With the popularity of portable media players, audio has become a very popular download for internet users. Audio is either streamed onto your computer from a streaming media server into your media player, or it is a file that can be downloaded and then played in your media player. Podcasts have become a very popular way to subscribe to music and video you are interested in. Podcasts are specialized RSS feed (XML-based) files on the internet that describe and link to a collection of audio or video files. Audio content is typically medium-to-large in size. Audio that is streamed directly into your media player cannot be downloaded in the traditional file-based manner using your web browser or media player.
- **Web sites.** Some internet users often wish to download a complete web site (or certain pages of a web site) so that they can view it later at their convenience. This is called offline browsing. All files for a web site are downloaded and saved onto your computer so that you can view the web site locally on your computer in your web browser. Web site content typically contains many small files.
- **Flash.** Macromedia Flash (.SWF) content is used widely on web sites to enhance sites with a more dynamic presentation. Flash content can be diverse in nature – ads, games, movies, complete web sites and more. Flash content is displayed in your web browser using an additional component (e.g. ActiveX control). The use of these additional components can make downloading flash content onto your computer difficult. Typically, flash content is small-to-medium in size.
- **RSS feeds.** Really Simple Syndication (RSS) feeds are now being used widely on web sites to provide up-to-the-minute news and information about topics of interest on a web site. RSS feeds are XML based files that describe topics of interest and contain links for internet users to gain more information. Typically, RSS feeds are viewed in RSS readers that are capable of presenting the RSS feed in a well-formatted manner. RSS feeds are typically small files that are updated regularly.

- **Games and game files.** Games are executable files that are usually downloaded and installed onto your computer. Games files are typically extensions or additions to existing games that you have already installed onto your computer. Games are typically large files that take significant bandwidth and time to download.
- **Compressed files.** Compressed files are collections of files that have been compressed to make them smaller to download. Internet users require a program installed on their computer to de-compress the files once downloaded. Popular formats for compressing files are ZIP, TAR and RAR. Typically, compressed files are very large in size and can take significant bandwidth and time to download.
- **Documents.** Document files are often available for download on the internet. Popular document formats are Acrobat PDF files, Word DOC files, EXCEL XLS files and PowerPoint PPT files. Document files can be large in size, requiring significant bandwidth and time to download.
- **Data files.** An increasing number of businesses download data files from the internet on a daily basis – often as a regular scheduled backup of their online data or to simply get the latest up-to-date data for their business. Data files can be any type of file and can be large in size, requiring significant bandwidth and time to download.

## 2.1 Various protocols used on the internet

Along with different types of content on the internet, there are several standard protocols that are used to access files and content. The popular internet protocols are:

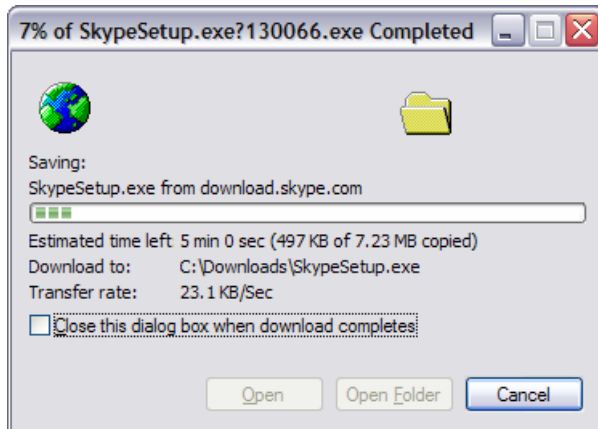
- **http://.** The hypertext transfer protocol is used to access and view web sites and is the most widely-used protocol by internet users. Any type of file may be accessed using this protocol. Example: <http://www.example.com/folder/file.zip>.
- **https://.** The secure hypertext transfer protocol is used to access and view web sites. Any type of file may be accessed using this protocol. Example: <https://www.example.com/folder/file.zip>.
- **ftp://.** The file transfer protocol is one of the oldest protocols still in use today and is used to upload and download to servers. Example: <ftp://ftp.example.com/folder/file.zip>.
- **mms://.** The multi-media server protocol is used to connect to Windows media streaming servers so that Windows media streaming audio and video can be played. Valid file types are .WMA, .WMV, .WAX, .WVX, .ASF and .ASX. Example: <mms://www.example.com/folder/file.wmv>.
- **rtsp://.** The real-time streaming protocol is used to connect to streaming servers so that streaming audio and video can be played. Valid file types include Real Audio/Video (.RA, .RM), Windows Media (.WMA, .WMV, .WAX, .WVX, .ASF, .ASX) and QuickTime (.QT, .MOV). Example: <rtsp://www.example.com/folder/file.rm>.

### 3. Tutorial: How to download a file

#### 3.1 Downloading without a download manager

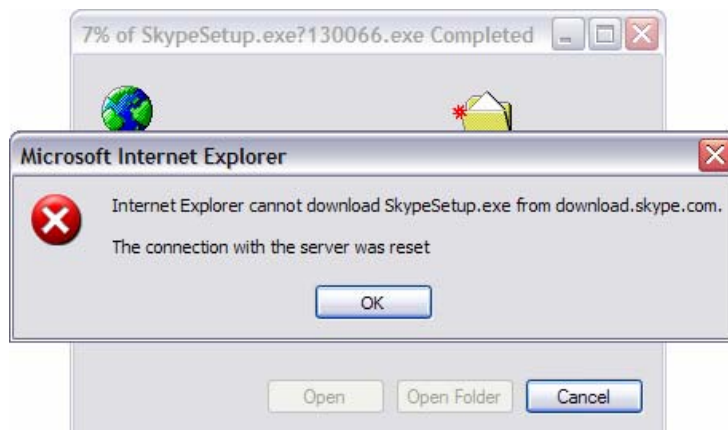
Typically, you will find a file that you wish to download while browsing the internet with your web browser.

Without a download manager installed, when you click on a link in your web browser, a Save As dialog box is displayed so you can confirm that you wish to download the file and so you can specify where to save the file. Your web browser will download the file to the location that you have requested.



*Using Internet Explorer without a download manager, the default File Download dialog box will be displayed.*

If a problem occurs during the download and it fails, then you will have start from the beginning and download the file again. This extra time and extra bandwidth can be very frustrating if you have downloaded the majority of the file, but have to start again.

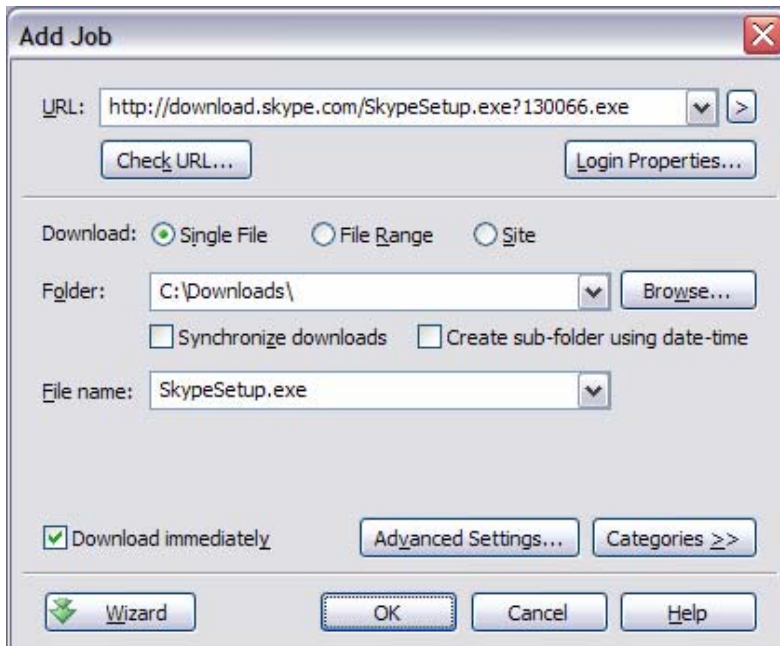


*Using Internet Explorer without a download manager, when an error occurs, you will have to start your download all over again.*



### 3.2 Downloading with a download manager

With a download manager installed, such as DownloadStudio, you will click on the same link in your web browser and your download manager will display an Add Job dialog. This dialog box gives you much more control over the download than your web browser's default dialog box. You have numerous settings that you can configure such as the file name, the folder location, comments, keywords, category, connection settings, password settings and acceleration settings.



*Using Internet Explorer with DownloadStudio installed, DownloadStudio's Add Job dialog box will be displayed and let you download files faster and with more control.*

Typically, leaving the default settings on the Add Job dialog are the most suitable settings for most downloads and will download the file for you with just one click of your mouse. Once downloaded, your download manager will notify you that it is complete and let you open the file or go to the folder containing the file.

A significant benefit of using the Add Job dialog is that your file downloads will be faster than just using your web browser. In many cases, it will be 50-100% faster and, in some cases, it will be up to 500% faster. The variation in acceleration depends on many factors such as the speed and congestion of your internet connection and the speed and congestion of the web server you are downloading from.

Another important benefit is that if the download fails for some reason, you can resume the download where it failed – thus saving you significant time and bandwidth.

After a file is downloaded, you can configure your download manager to automatically perform virus and spyware checks on downloaded files. Download managers also help you organize your downloaded files so that they are easily found later. Most download managers allow you to use categories to set the folder location of the file. Some download managers, such as DownloadStudio, take this further with a complete category database that lets you organize your files into virtual folders.

## **4. Tutorial: How to download from password-protected web sites**

Many web sites on the internet require you log into the web site before you can access content on the site. Typically, when you become a member of a free or paid web site, you will be given a user name and password that you must use to log into the site.

There are two techniques that web sites use for authentication:

- Basic authentication
- Forms-based logins and session-based cookies

### **4.1 Basic authentication**

The most common technique used by web servers is basic authentication. When accessing a web server with either the http://, https:// or ftp:// protocols, the server will request that a user name and password be supplied. At this time, the download manager must supply a valid user name and password to continue the conversation with the web server – otherwise the conversation will be terminated.

DownloadStudio provides comprehensive support for basic authentication:

- If no user name or password can be found in the download job or in the Login List in the Options dialog, then DownloadStudio will display a Login dialog that will let you enter your user name and password.
- When creating a download job, you can enter the user name and password into the settings for the download job, so it will be automatically supplied to the web server when the download job starts.
- If you access particular web sites many times, then it may be best to save the user name and password in the Login List in the Options dialog. When user names and passwords are added to the Login list in the Options dialog, you no longer need to add the user name and password to each download job, thus saving you time and effort.

### **4.2 Forms-based logins and session-based cookies**

Some web sites require you to login with your user name and password using a form on their web site. In addition, it is now common for web sites to ask you to enter a security code that is displayed as an image.

After entering these details, the web site typically creates a session-based cookie in your web browser. This cookie is used to authenticate all your subsequent access to the web server. If the cookie does not exist, then access is denied. This technique is quite different from using basic authentication, so entering your user name and password directly into the settings for a download job will not work with these web sites.

DownloadStudio is capable of downloading from forms-based login web sites. The following technique should be used:

- 1.** Start Internet Explorer and log into the web site using your user name and password.
- 2.** Keep Internet Explorer running.

- 3.** Start DownloadStudio and create a download job that downloads the files that you want from the web site. There is no need to enter the user name and password into the download job.
- 4.** Start downloading files as you normally do.
- 5.** When completed, close Internet Explorer.

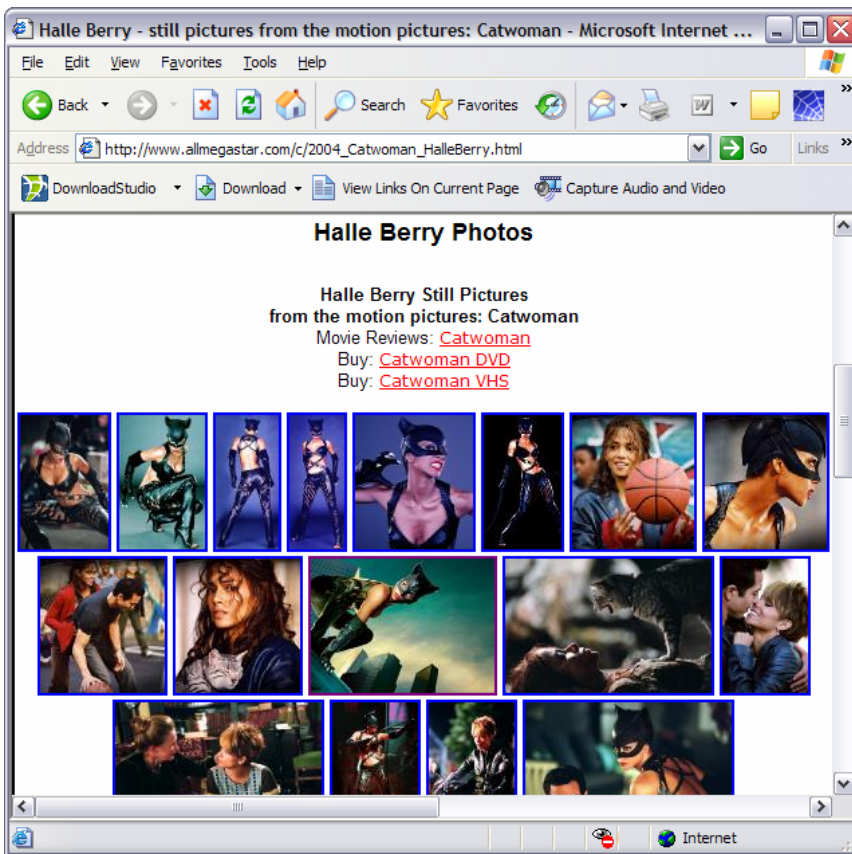
DownloadStudio is capable of downloading files from these web sites since it is able to read the session-based cookies directly from Internet Explorer. It then sends this cookie information to the web server whenever it requests content from the web server.

## 5. Tutorial: How to download a collection of files

Web sites that have many files often use file-naming conventions whereby they name their files using a series of numbers or letters. For example, a celebrity photo gallery site may name its 'Angelina Jolie' photos as `angelina_jolie001.jpg`, `angelina_jolie002.jpg`, `angelina_jolie003.jpg` ... `angelina_jolie125.jpg`. From this, you can see that they are just a series of photos numbered from 1 to 125. Or, a MP3 music site may name the artist Beck's MP3 files as `beck_odelay_track1.mp3`, `beck_odelay_track2.mp3` ... `beck_odelay_track12.mp3`. From this you can see that they are just a series of MP3s numbered from 1 to 12.

Rather than having to do the tedious job of downloading each file separately, the file range technique of downloading lets you specify the URL for one of the files and then you can specify the file range for the download. This makes downloading collections of files extremely convenient and well suited to photo gallery sites or music sites.

For this tutorial, we will download a series of photos of the Oscar-winning actress, Halle Berry, from a celebrity photo web site.

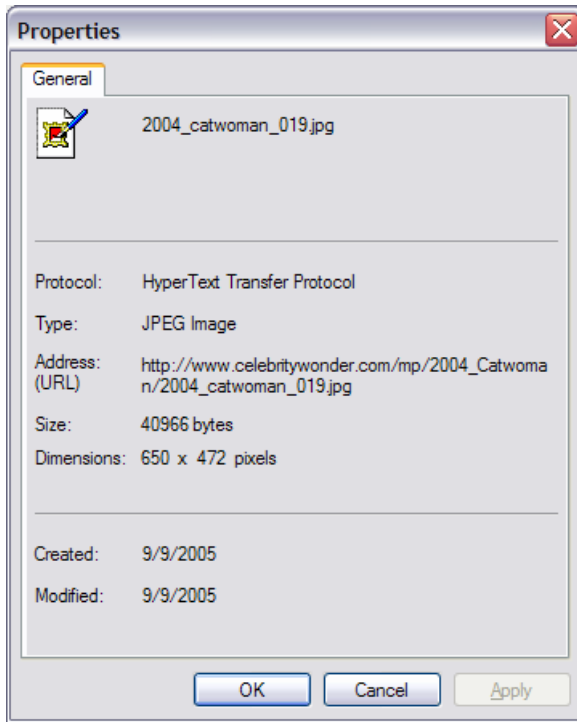


*Internet Explorer displaying a photo gallery of Halle Berry photos. We wish to download the large-sized photos from this site.*

### 5.1 Determining file-naming convention of files

The first step is to look at the URLs of the large-sized photos that you wish to download. You need to discover the file-naming convention that the web site uses for its photos. Click on a

thumbnail to display the large-sized photo in your web browser and then right-click on a large-sized photo to display your web browser's right-click menu and then click the Properties menu item. This will display the properties of the image.



*Internet Explorer Properties dialog for a JPEG photo of Halle Berry on a celebrity photo gallery web site.*

Looking at several large-sized photos of Halle Berry on this site, we can see that the file-naming convention for this web site looks like:

`http://www.celebritywonder.com/mp/2004_Catwoman/2004_catwoman_001.jpg`

`http://www.celebritywonder.com/mp/2004_Catwoman/2004_catwoman_002.jpg`

...

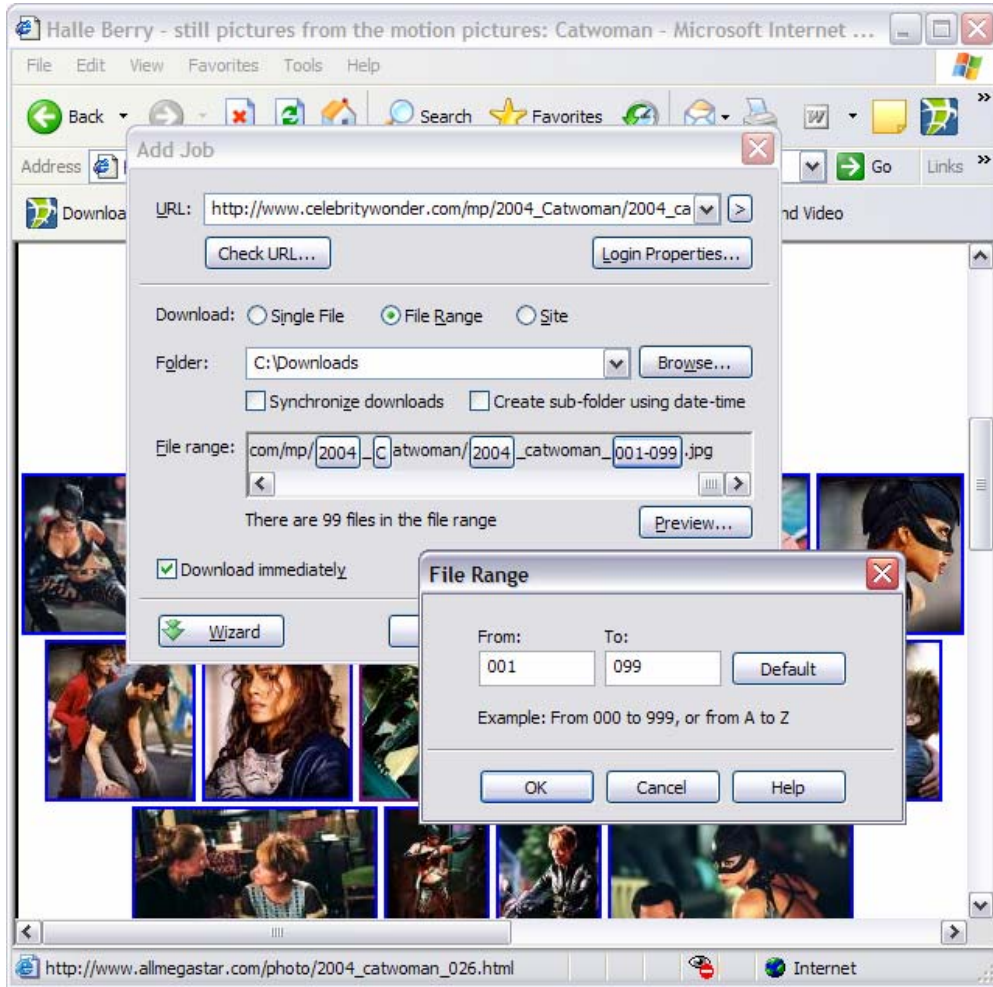
`http://www.celebritywonder.com/mp/2004_Catwoman/2004_catwoman_099.jpg`

Based on this, we can easily determine that the file range to download all the large-sized photos will be:

`http://www.celebritywonder.com/mp/2004_Catwoman/2004_catwoman_[001-099].jpg`

## 5.2 Creating file-range download job

Now we can create a download job that matches this file range. In DownloadStudio, we simply click the Add toolbar button and fill in the Add Job dialog with the URL and the file range that we discovered.



*Internet Explorer and DownloadStudio's Add Job dialog with File Range settings displayed to download a series of Halle Berry photos.*

To check the file range, you can click Preview button on the Add Job dialog and it will display all URLs in the file range.

After creating the download job, DownloadStudio will attempt to download all URLs in the file range from the web site and save the files onto your computer. This technique is a very powerful way to download collections of files.

## 6. Tutorial: How to download a complete web site

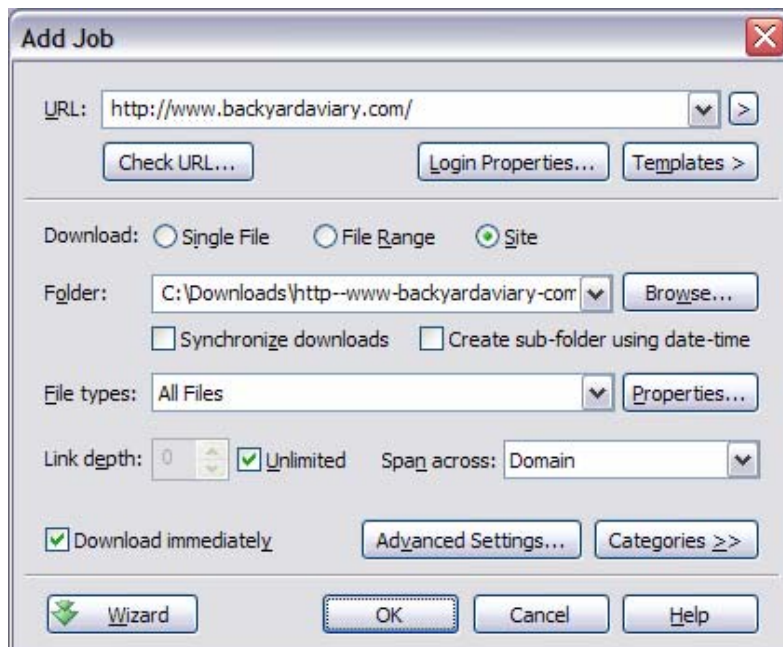
Downloading a complete web site is an easy task with a multi-featured download manager, such as DownloadStudio, that has a web site downloading capabilities. By simply providing the URL of the web site, a download manager will download all files relating to the web site so that you can open it on your web browser without being connected to the internet.

Downloading complete web sites can be useful for research purposes, for daily backups of your business data or for simply offline browsing when you are not connected to the internet.

For this tutorial, we will download a web site about building a backyard aviary.

### 6.1 Creating a web site download job

The first step is to start DownloadStudio and click the Add toolbar to create a new download job. We just need to enter the URL for the web site and change any of the default settings.



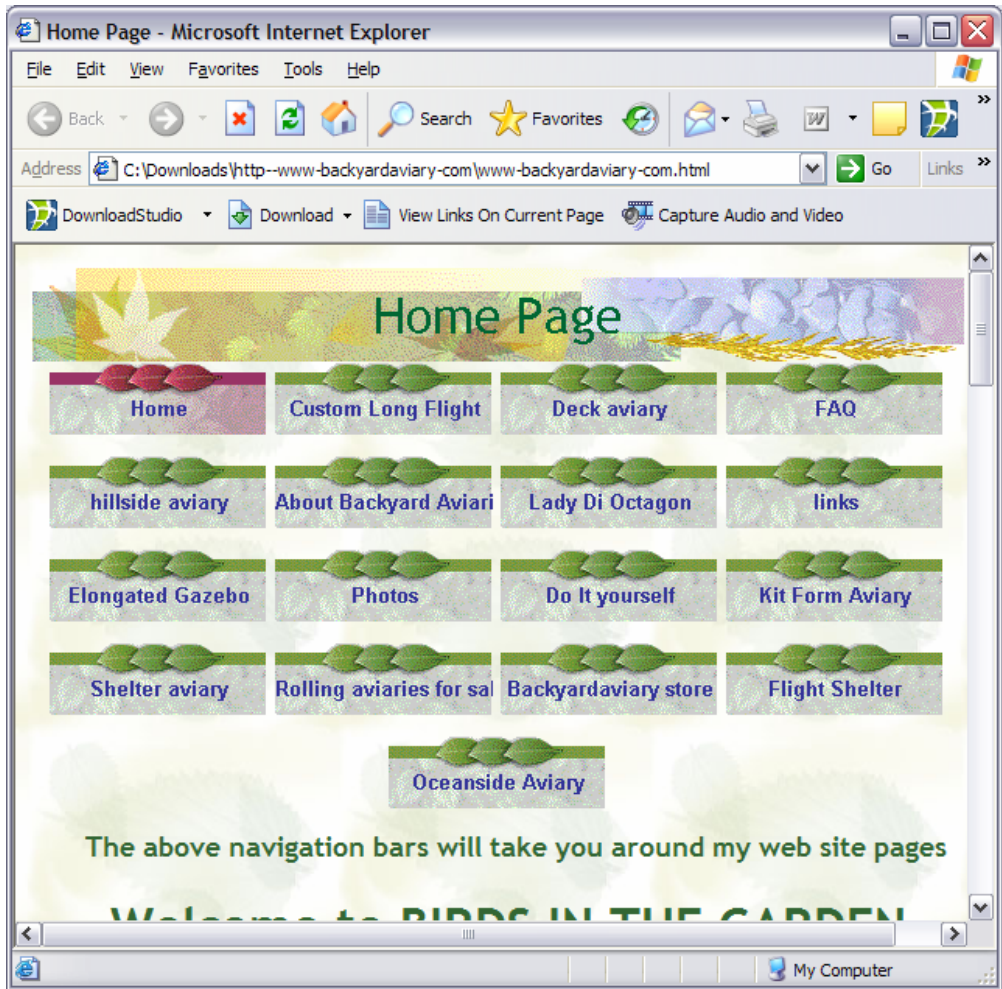
*Add Job dialog to download the complete web site for backyard aviaries*

The next step is to click OK and the download jobs will start immediately. After a few minutes of downloading, the complete web site will be downloaded. In the above example, over 18MB of data and 500 files were downloaded.

*Warning: Downloading complete web sites can download many files that could total many gigabytes of data, so you must be careful and monitor your web site downloads. You could quickly exceed your monthly internet bandwidth limit or exceed the size of your computer's storage quite easily.*

Once downloaded, you can view the web site on your computer just as you would when connected to the internet.





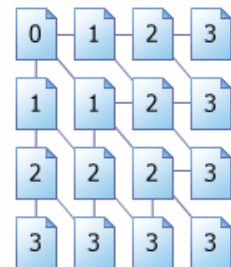
*Internet Explorer displaying the backyard aviary web site that was downloaded using DownloadStudio*

When downloading web sites, there are several settings that let you control the files that you download. These are discussed in the following sections.

## 6.2 Link depth setting

The link depth setting allows you to control how deep you wish to traverse into a web site. It is the number of link levels that you wish to download from the web site. A link depth of 0 means that only the top-level web page and its images will be downloaded. A link depth of 1 means that the top-level web page and its images will be downloaded *and* the links on that web page will also be downloaded. You can choose any number of levels for the link depth. An *unlimited* link depth means that *all* links will be downloaded from the web site – so the complete web site will be downloaded.

The diagram illustrates how increasing the link depth will download more content from a web site.





### 6.3 Span across setting

The span setting allows you control the location of content that is downloaded. For example, you may just want to download content from the same web server as the URL and ignore external links to (say) advertisements and other non-relevant material. Or, you may want to just download content from the URL's folder and sub-folders.

When using span settings, it is important to understand the difference in the meaning of server, domain and group. There are 4 possible values for the span setting:

- **Folder and sub-folders.** Only files in the same folder or sub-folder as the URL will be downloaded.
- **Server.** Only files on the same server as the URL will be downloaded.
- **Domain.** Only files on the same domain as the URL will be downloaded.
- **Group.** Only files on the same group as the URL will be downloaded.
- **All domains and servers.** Any URL will be downloaded.

As an example, using the URL "http://www.conceiva.com/images/logo.gif":

- Folder and sub-folders: "www.conceiva.com/images" is the folder. Any content under this folder would be permitted to be downloaded – such as "http://[www.conceiva.com/images/logo.gif](http://www.conceiva.com/images/logo.gif)" or "http://[www.conceiva.com/images/banner/top320x240.gif](http://www.conceiva.com/images/banner/top320x240.gif)"
- Server: "www.conceiva.com" is the server name. Any content on this server would be permitted to be downloaded – such as "http://[www.conceiva.com/default.asp](http://www.conceiva.com/default.asp)" or "http://[www.conceiva.com/downloads/downloadstudio.exe](http://www.conceiva.com/downloads/downloadstudio.exe)"
- Domain: "conceiva.com" is the domain name. Any content from any servers on this domain would be permitted to be downloaded – such as "http://[www.conceiva.com/company/whitepaper.pdf](http://www.conceiva.com/company/whitepaper.pdf)" or "http://[forum.conceiva.com/index.htm](http://forum.conceiva.com/index.htm)"
- Group: "conceiva" is the group name. Any content from servers on this group would be permitted to be downloaded – such as "http://[www.conceiva.com/default.asp](http://www.conceiva.com/default.asp)" or "http://[register.conceiva.co.jp/default.asp](http://register.conceiva.co.jp/default.asp)" or "http://[images.conceiva.co.uk/library/P98007.gif](http://images.conceiva.co.uk/library/P98007.gif)"

### 6.4 File types setting

With DownloadStudio, you can choose what types of files you wish to download. For example, you may just want to download all the images that are larger than 100KB from a web site (so you only download the large-size images and skip the small thumbnails on a photo gallery web site). Or, you may wish to download all PDF documents from a web site.

There are two methods that you can use to determine type of files on a web site:

- **The file extension of a file.** DownloadStudio will match the file extension of the URL (e.g. .JPG) with the list of file extensions that you wish to download (e.g. .JPG; .GIF; .PNG). This is the fastest method for downloading files of a certain type.

- **The MIME type of a file.** DownloadStudio will request the MIME type of the URL from the web server and match it with the list of MIME types that you wish to download. This is the most accurate method since sometimes the file extension may not truly represent the type of the file, whereas the MIME type is typically correct.

You can choose to download files based on their file size or last-modified date. This lets you get files of a certain file size or files that are not older than a certain date.

## 7. Tutorial: How to download only large-sized photos

Downloading large-sized photos is a very popular hobby for internet users. There are many photo gallery web sites that contain photos of interest such as celebrities, cars, girls, animals and more.

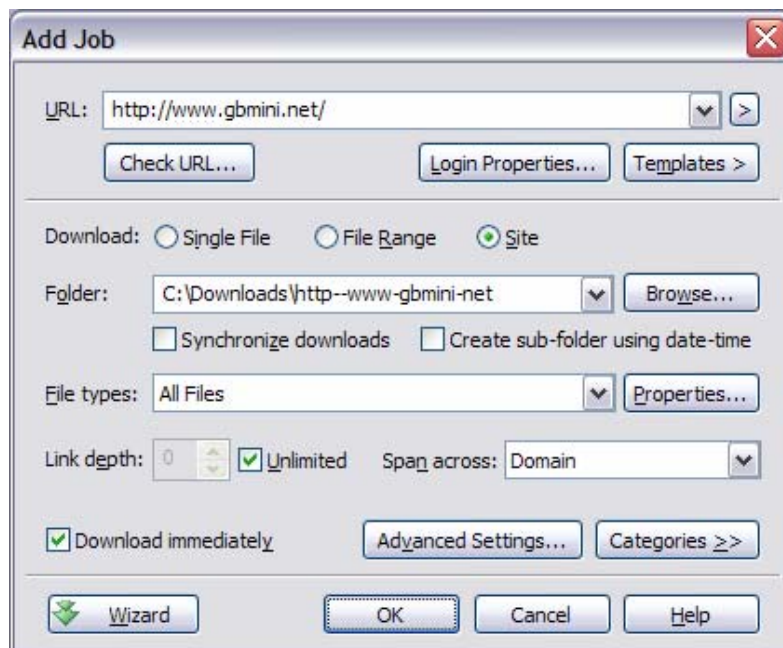
Multi-featured download managers, such as DownloadStudio, are capable of walking through a complete web site and downloading the photos that you want.

Downloading all the photos from a web site is just like downloading a complete web site – except that you want to restrict the files being downloaded to just the photo files. Images and pictures on the internet are typically JPEG, GIF or PNG files. In most cases, photos are JPEG files.

For this tutorial, we will download large-sized photos of Mini Cooper cars from a Mini Cooper fan site.

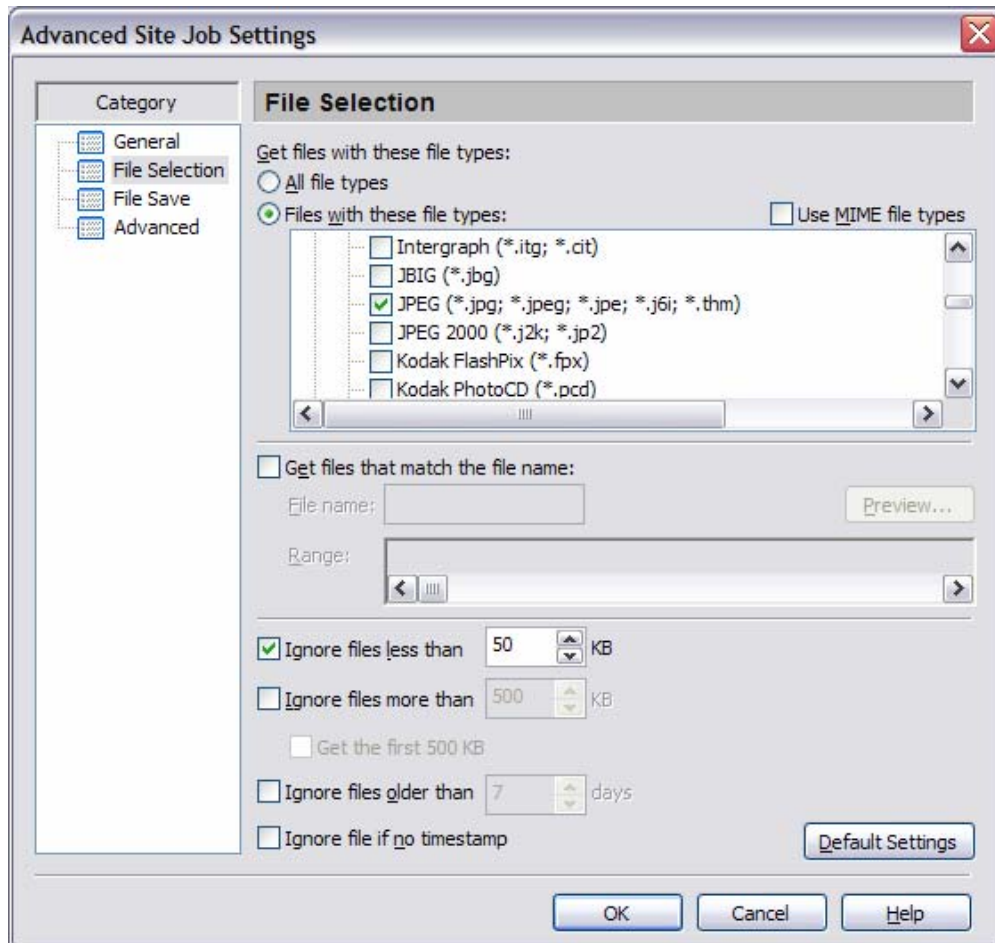
### 7.1 Creating a filtered web site download job

The first step is to start DownloadStudio and create a web site download job. We need to enter the URL for the web site and then change the settings for the download job.



*Add Job dialog to download large-sized JPEG photos*

To change the types of files that we wish to download, we need to click the Advanced Settings button and then select JPEG files as the type of files that we wish to download. Also we wish to ignore files that are less than 50KB in size (this will help us ignore the smaller thumbnail files and just get the large-size images).

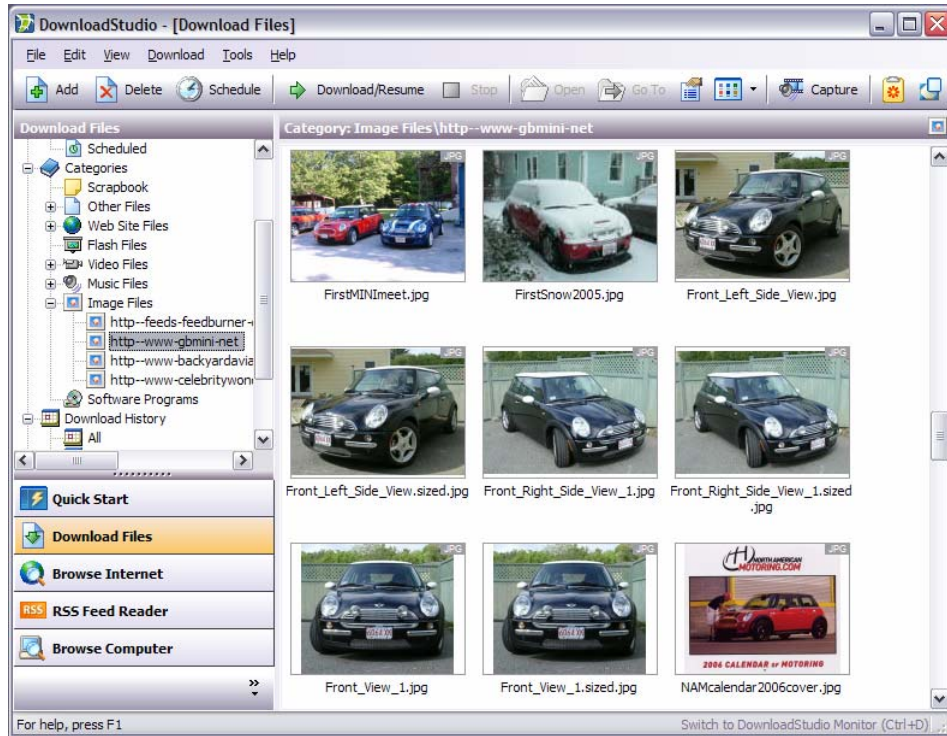


*Advanced Settings dialog to specify to just download JPEG files that are larger than 50KB*

After setting up our criteria for the download job, we can start the download. It will walk through the complete web site looking for JPEG images that are larger than 50KB in file size. These files will be downloaded and saved onto your computer.

## 7.2 Viewing downloaded photos

Once the download job has been completed, you can view all the photos that were downloaded using DownloadStudio's integrated file browser. The file browser supports over 100 popular file formats so that you can see thumbnails of your downloaded files. Double-clicking on a thumbnail will display the full-sized photo in the Instant Viewer, or you can watch a slideshow of all your downloaded images. You can also print full-sized prints or index prints or your images.



*DownloadStudio File Browser displaying thumbnails of all downloaded photos*

## 8. Tutorial: How to download a movie or video

Streaming audio or video cannot be downloaded and saved onto your computer without the use of a download manager. The reason is that streaming audio or video is designed to be sent as small packets of data to your media player on your computer. Once played, the packets of data are discarded – so there is no way for you to save the file using your web browser or media player.

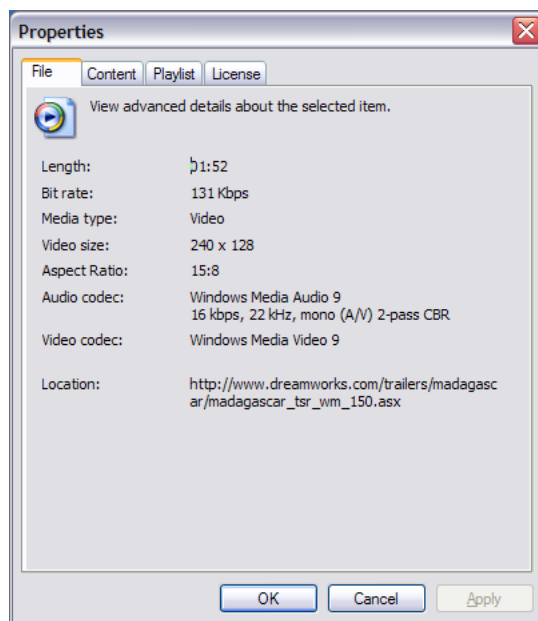
Some multi-featured download managers, such as DownloadStudio, are capable of connecting to streaming media servers just like media players. Instead of discarding the data, download managers save this data to a file onto your computer so that the streaming audio or video can be played anytime without being connected to the internet.

In addition, another technique supported by DownloadStudio is to capture the audio and video as it plays in your media player. DownloadStudio includes a specialized capture tool that is able to record the audio and video as it plays, and then save it to a file on your computer.

### 8.1 Finding the URL for streaming media

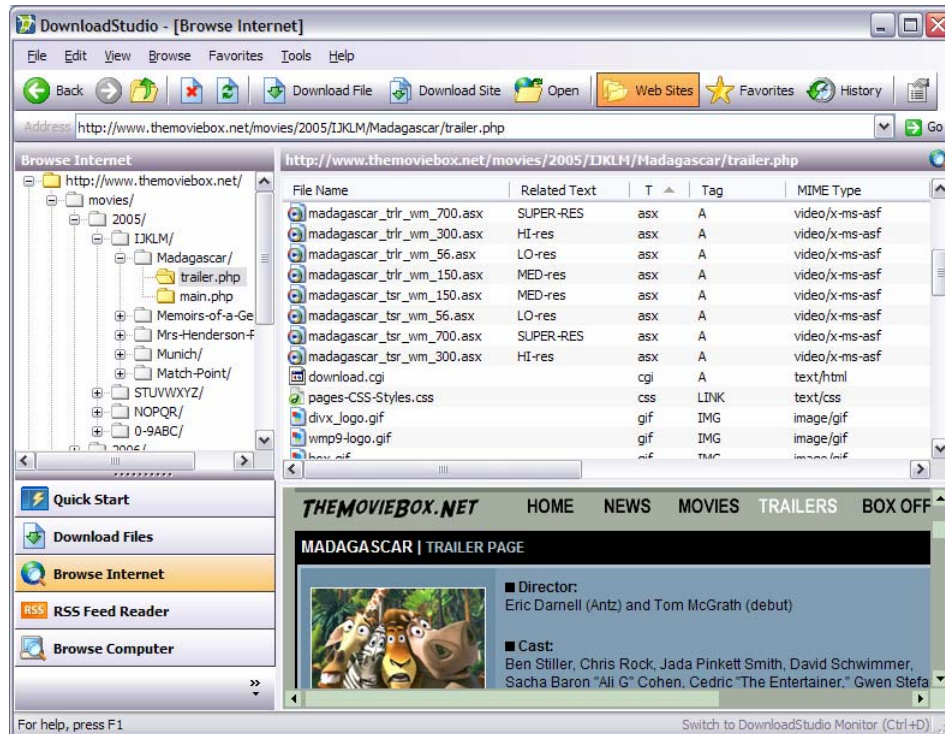
The first step when downloading streaming audio or video is to find the URL of the streaming media to download. Here are the best ways to get the URL of streaming media:

- 1. Media player properties.** In many cases, you can get the URL by viewing the Properties dialog of the streaming audio or video as it is playing in your media player. Right-click in your media player and click Properties, or click the File/Properties menu item, to display the Properties dialog. The Properties dialog may display the Location (or URL) of the streaming media.



*Windows Media Player Properties dialog, showing the URL for a movie that it is playing*

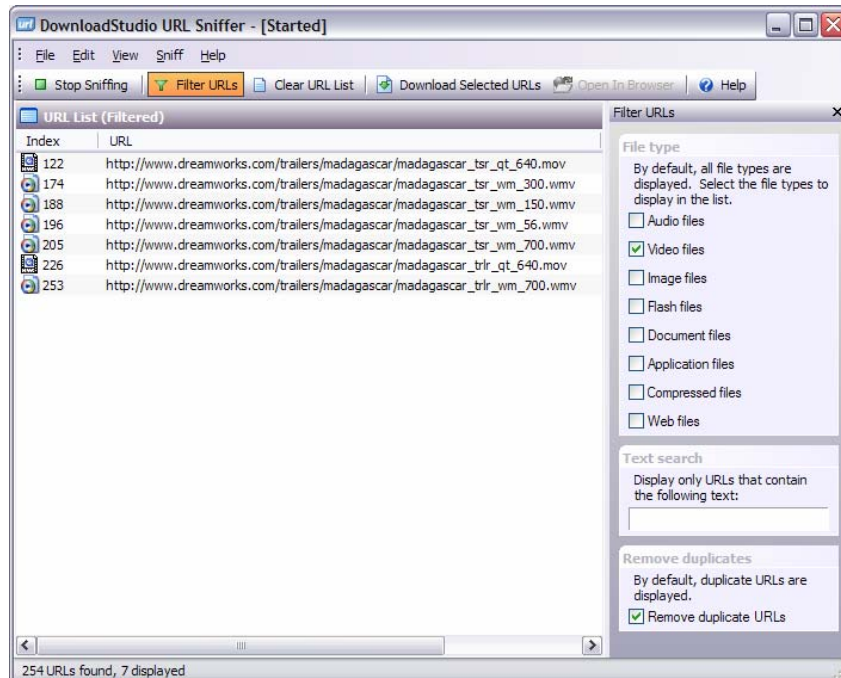
- 2. View links on a web page.** DownloadStudio contains a site explorer that is capable of displaying all links contained on a web page. This may show the URL of the streaming media. In your web browser, go to the web page that contains the link to the streaming media and then click View Links on the DownloadStudio toolbar or right-click in the page and click Show Links from the context menu. This will start DownloadStudio and go to Browse Internet mode. All links on the web page will be displayed. You can sort them by the Type column to find URLs that are streaming media URLs. In many cases, this will find the URL that you are after.



*DownloadStudio Browse Internet mode, showing all links found on a movie web page.*

- 3. URL Sniffer.** If neither of the first two methods gives you the URL of the streaming media, then you can use a URL Sniffer application to watch all traffic between your computer and the internet. DownloadStudio includes the DownloadStudio URL Sniffer application. When you start to play the streaming media in your media player, start sniffing with DownloadStudio URL Sniffer and you will be able to see the URL of the streaming media appear in the URL List. You can then select it and click "Download Selected URL" to create a download job in DownloadStudio.





*DownloadStudio URL Sniffer, showing URLs that have been detected when clicking on video links in a web page.*

## 8.2 Identifying the type of streaming media

There are three popular types of streaming media used on the internet. You can use this information to help identify the type of streaming media that you are downloading:

- Windows Media streaming servers. Streaming media from Windows Media servers typically use the protocol `http://`, `mms://` or `rtsp://`. File extensions are typically `.WMV`, `.WVX`, `.WMA`, `.WAX`, `.ASF` or `.ASX`.
- Real Media streaming servers. Streaming media from Real Media servers typically use the protocol `http://` or `rtsp://`. File extensions are typically `.RA`, `.RM` or `.RAM`.
- QuickTime streaming servers. Streaming media from QuickTime servers typically use the protocol `http://`. File extensions are typically `.QT` or `.MOV`.

## 8.3 Streaming media meta-files

Web sites will often not link directly to the streaming audio or video. Instead, they often link to streaming media meta-files. These meta-files are small XML file or text files that are used to describe more information about the streaming media such as different resolutions of the streaming media and alternate locations of the streaming media.

On Windows media servers, meta-files usually have a file extension of `.WVX`, `.WAX` or `.ASX` – whereas the actual streaming media has a file extension of `.WMV`, `.WMA` or `.ASF`. On Real media servers, meta-files usually have a file extension of `.RAM`, whereas the actual streaming media has a file extension of `.RA` or `.RM`.



DownloadStudio can parse Windows media meta-files to locate and automatically download the actual streaming media, thus saving you the trouble of working out what is the actual streaming media URL to download.

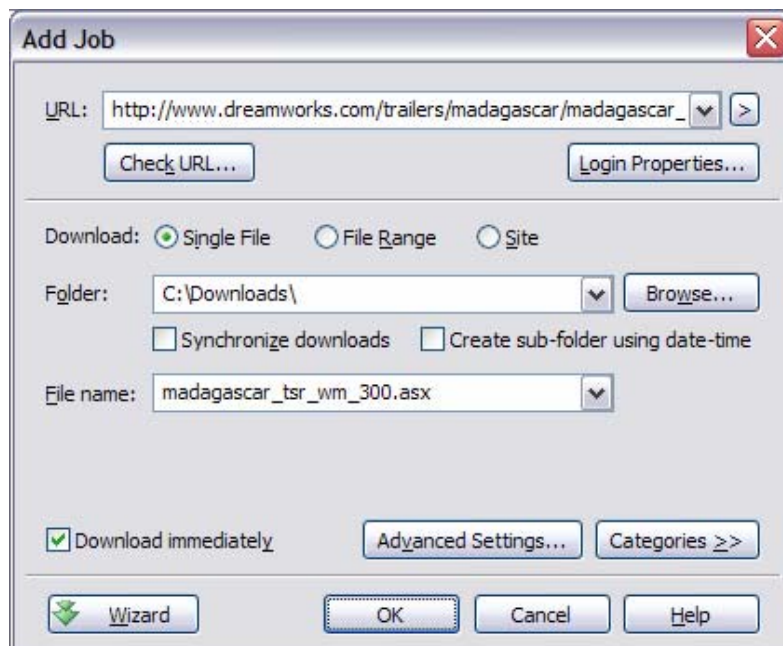
#### 8.4 Downloading streaming media from a streaming media server

Once you find the URL for the streaming media that you wish to download, you can determine if you can download it directly using your download manager. DownloadStudio can download streaming media directly from Windows media streaming servers (.WMV, .WVX, .WMA, .WAX, .ASF or .ASX files).

If the URL is a Windows media streaming media URL, then you can download the streaming media just as you download any single file from the internet. See the tutorial "How to download a single file" for more details about single file downloading.

For this tutorial, we will download a movie trailer for the animated movie "Madagascar". The first step is to get the URL of the streaming video. We can find the URL by right-clicking in Windows Media Player (or using the File/Properties menu item) to see the properties of the streaming media as it is playing. This tells us the URL that we need to download.

The next step is to start DownloadStudio and click the Add toolbar button to display the Add Job dialog. We need to enter the URL of the streaming video and click OK to start the download. The download will take several minutes to download the movie trailer.



*DownloadStudio Add Job dialog with streaming video URL*

Once the download has completed, we can click the Open toolbar button to play the video file (WMV format) that has been saved to your computer.



*Windows Media Player playing the downloaded streaming video*

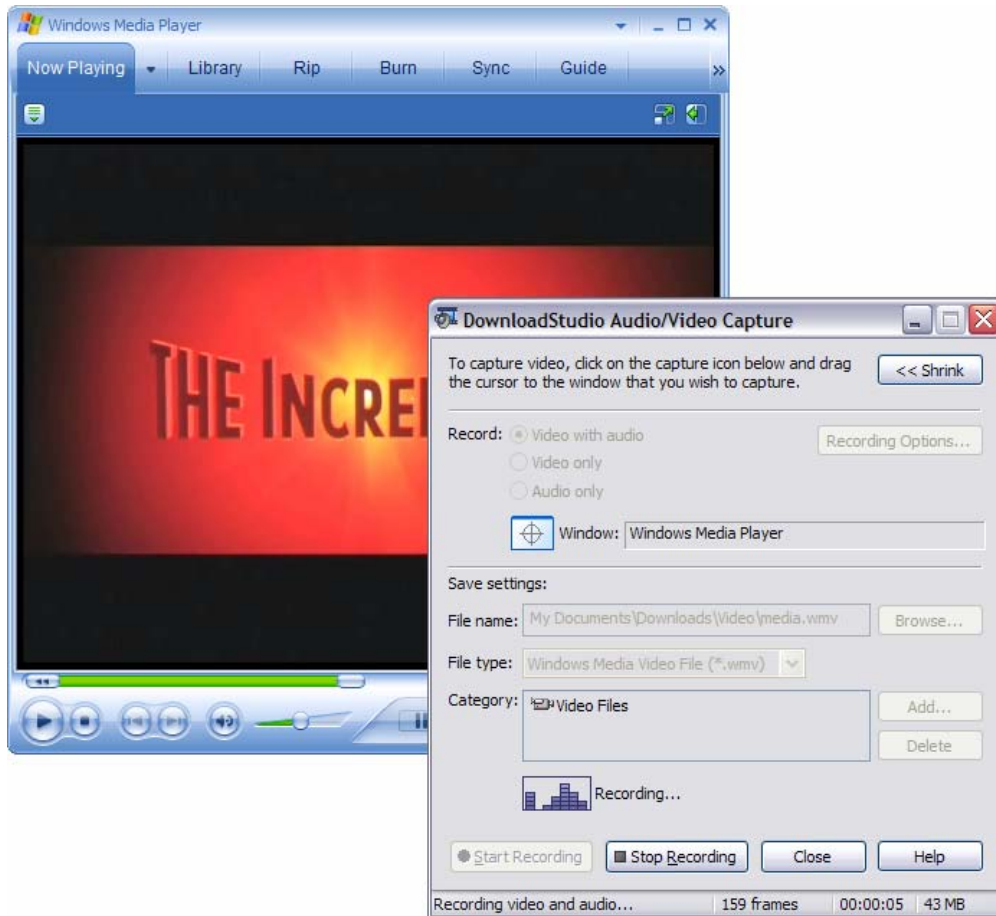
### **8.5 Capturing streaming media as it plays on your computer**

If your download manager does not support downloading streaming media directly or does not support certain streaming media servers, then an alternate technique you can use is to capture the streaming media as it plays in your media player.

DownloadStudio includes a specialized tool to capture streaming audio and video. The DownloadStudio Audio/Video Capture software application is capable of recording audio and video as it plays on your computer, allowing you to save any streaming audio or video.

For this tutorial, we will capture the trailer for the animated movie "Incredibles" as it plays in Windows Media Player.

The first step is to start playing the movie trailer in you media player. You can do this by clicking on the link for movie trailer in your web browser. Once it starts playing, click Stop in your media player. Next, start DownloadStudio Audio/Video Capture.



*Windows Media Player and DownloadStudio Audio/Video Capture*

By clicking on the Capture icon in DownloadStudio Audio/Video Capture and dragging it over your media player, you can select the window that you wish to capture video from.

Now, you can select the format of the audio or video that you wish to save on your computer. For video, you can choose the AVI or WMV formats and for audio you can choose the WAV or WMA formats.

*Tip: There are numerous settings in the Recording Options dialog for DownloadStudio Audio/Video Capture that will let you fine-tune how you capture audio and video. For example, you can choose the audio device that you wish to capture audio from.*

When you are ready to begin recording, start playing the movie trailer in your media player and click the Start Recording button in DownloadStudio Audio/Video Capture. Once you have recorded the movie trailer, click the Stop Recording button (or press CTRL + F9). The captured video will then be saved to the format of your choice onto your computer. You can click the Play button to play the recorded audio or video.

*Technical Note: By default, most media players will use hardware acceleration features of your video card. If hardware acceleration is turned on, DownloadStudio Audio/Video Capture may not be able to capture the video as it plays. This will result in a black video being recorded. You must to turn off hardware acceleration in the Options dialog of your media player. For Windows Media Player, go to the Tools/Options dialog, and click on the Performance tab. Make sure the Video Acceleration slider is set to None. For Real One Player, go to the Tools/Preferences dialog, and click on the Hardware page. Make sure the Video Card Compatibility is set to Most Reliable.*

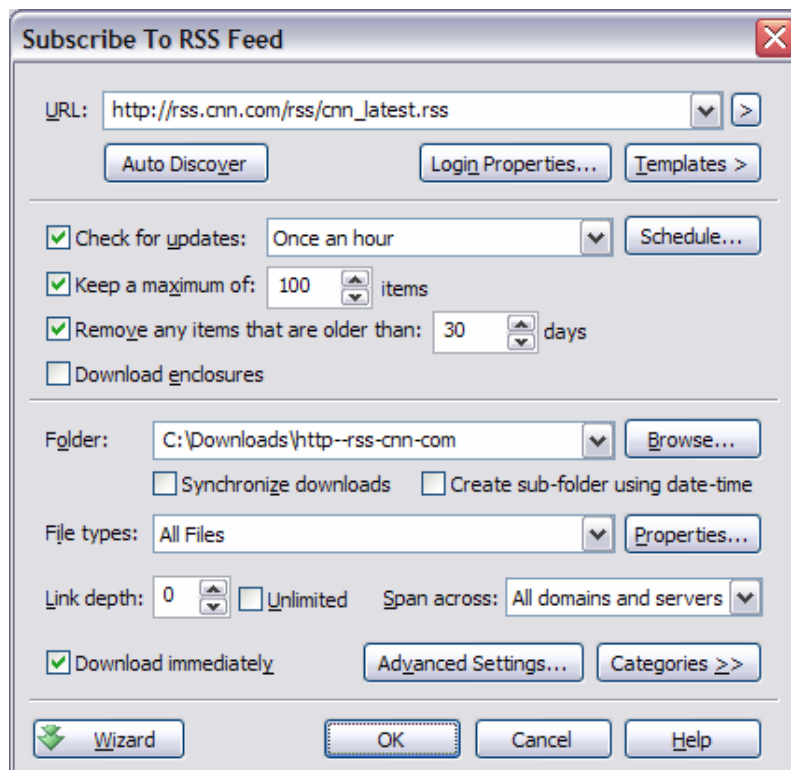
## 9. Tutorial: How to subscribe to RSS feeds

RSS feeds have become a popular way for web sites to inform you about its latest news or its latest content. RSS stands for Really Simple Syndication and is an XML based file that contains information and links about content from a web site. Popular RSS feeds are latest headlines from news web sites, latest music titles from music sites, latest company news from business web sites, latest topics from blogs, and more.

By subscribing to an RSS feed for a web site, you can keep up-to-date about all the latest news and content for that web site. You can subscribe to RSS feeds using a dedicated RSS feed reader like Awasu (<http://www.awasu.com>) or using a multi-featured download manager, such as DownloadStudio.

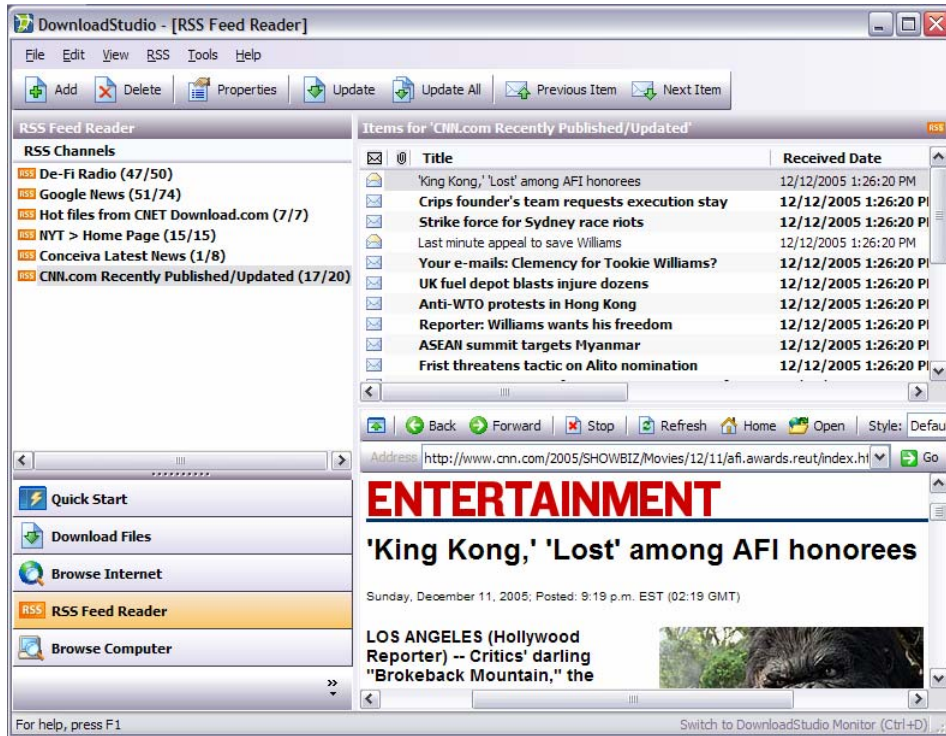
For this tutorial, we will use DownloadStudio to subscribe to an RSS feed from CNN (<http://www.cnn.com>).

The first step is to start DownloadStudio and go to Read RSS Feed mode. Click the Add toolbar button to display the Subscribe To RSS Feed dialog and enter the URL of the RSS feed. If you are unsure of the URL for the RSS feed, then just enter the URL of the web site containing the RSS feed and click the Auto Discover button. DownloadStudio will try to find the RSS feed URL and automatically enter it into the dialog for you.



*DownloadStudio Subscribe To RSS Feed dialog lets you subscribe to RSS feeds on web sites.*

Click OK to subscribe to the RSS feed and DownloadStudio will download the RSS feed and display it for you to read. Using DownloadStudio's integrated RSS feed reader, you can view all unread items, visit links to read more about topics, and more.



*DownloadStudio RSS Feed Reader displaying feed from CNN web site*

In addition to the typical features of RSS feed readers, DownloadStudio contains additional features that give you more power and flexibility when subscribing to RSS feeds:

- Downloading podcasts and enclosures
- Downloading feed content for offline browsing

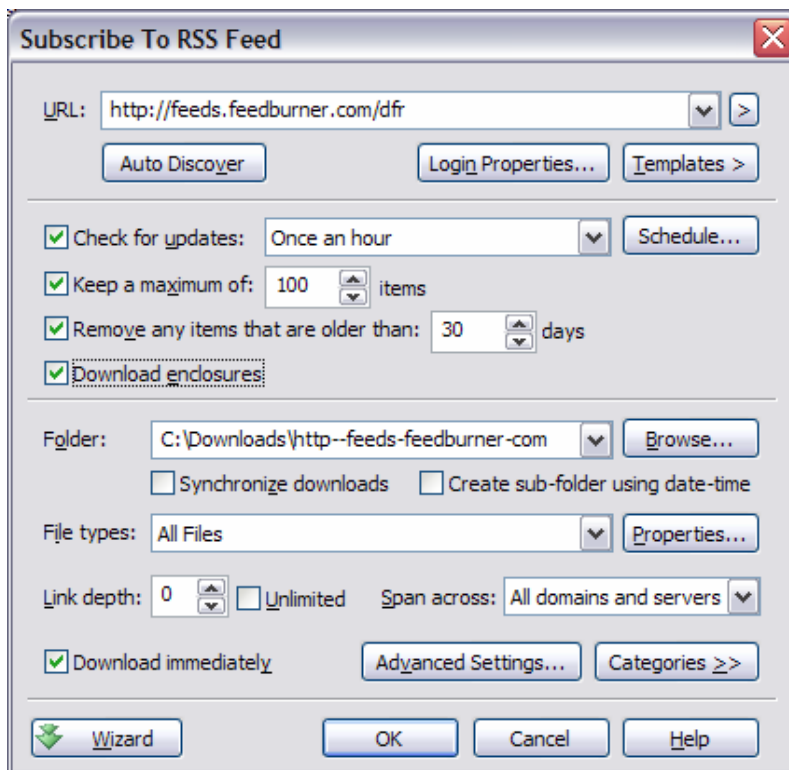
## 9.1 Downloading podcasts and enclosures

Podcasts are RSS feeds that contain information and links to audio and video files. They have become very a popular way to get your favorite music, due mainly to the popularity of portable media players such as Apple's iPod.

For example, owners of portable media players often subscribe to podcasts of their favorite artists and download the latest MP3 music titles so they can upload them into their portable music player.

*Technical Note: Podcasts use the "enclosure" tag within an RSS feed to specify the location of an audio or video file. Download managers such as DownloadStudio are capable of downloading the enclosures from an RSS feed so that you can save all the audio or video files from a podcast onto your computer.*

For this tutorial, we will download an MP3 podcast from a podcast directory. The steps are the same for subscribing to an RSS feed. We need to enter the URL for the podcast. Make sure you check the 'Download enclosures' checkbox so that you also download the audio files for the podcast. Once downloaded, you can them save them into your portable media player.



*DownloadStudio Subscribe To RSS Feed dialog with a podcast URL. Make sure the 'Download enclosures' checkbox is checked so that you also download all the MP3 files in the podcast.*

## 9.2 Downloading feed content for offline browsing

A powerful way to use DownloadStudio when subscribing to RSS feeds is to download the RSS feed XML file *and all the associated links* so that the complete RSS feed can be viewed offline without being connected to the internet.

For example, this can be useful for downloading the latest news every morning and saving them onto your PDA or laptop for viewing whilst traveling.

Downloading the associated links for a RSS feed is easy with DownloadStudio. If you wish to download the web pages for all the news items on an RSS feed, then simply increase the link depth to 1. This will download the RSS feed and all web pages and their images so that you can view the complete RSS feed on your computer without being connected to the internet. You can increase the link depth further to download more content contained on other pages if you wish.

You also have full control over what types of files that you want downloaded with your RSS feed. These download job settings are the same as for a web site download. You can choose the type of files to download, their file size, the link depth, the span setting and more. See the Tutorials "How to download a complete web site" and "How to download only large-sized photos" for more details on changing the settings to download.

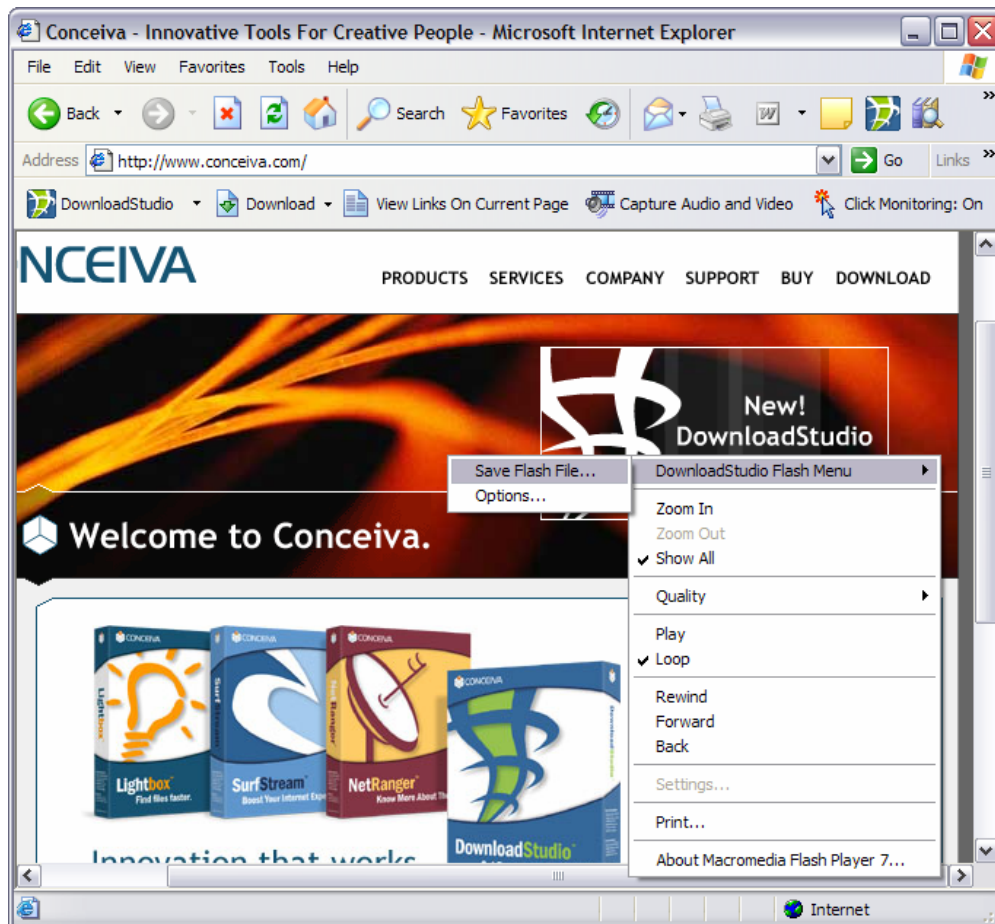


## 10. Tutorial: How to save Flash content

Downloading or saving Macromedia Flash (.SWF) content from a web browser can be very difficult since Flash is displayed using additional components (e.g. ActiveX controls) in your web browser. This is particularly the case for Internet Explorer and Internet Explorer-based web browsers.

### 10.1 Right-click and save flash

DownloadStudio, and some other flash capture tools, have solved this problem by enabling you to right-click on Flash content and save the Flash content to your computer. DownloadStudio does this by adding extra menu items to the Macromedia Flash component in Internet Explorer.

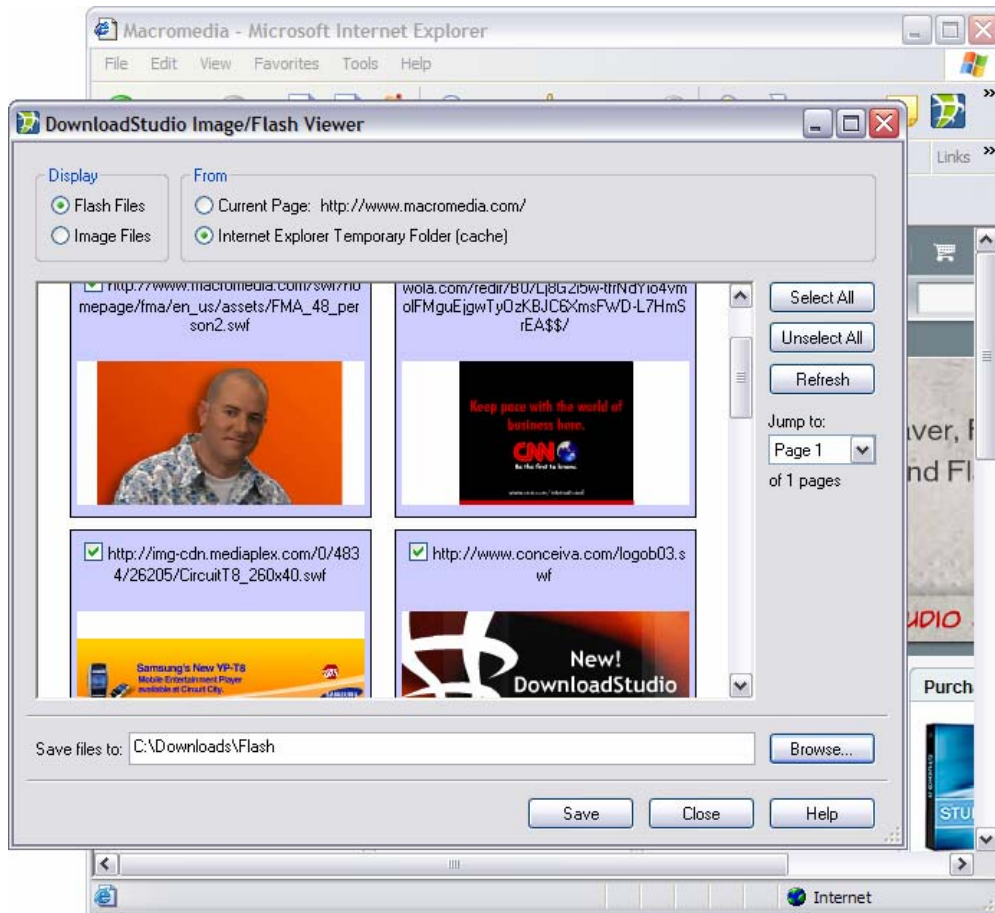


*Right-clicking on flash content in Internet Explorer will display the standard Flash context menu – but with two important additions that allow you to save the flash file to your computer and to configure how you wish to capture flash.*



## 10.2 Browsing and saving flash

DownloadStudio incorporates another technique for saving flash onto your computer. It can locate all Flash content on the current page or all flash content in your Internet Explorer cache. This lets you browse all possible flash content and select multiple items that you wish to save onto your computer.



*DownloadStudio Image/Flash Viewer is integrated into Internet Explorer so that you can browse, select and save flash on a web page or flash in your Internet Explorer cache.*

## 11. About DownloadStudio

DownloadStudio is an award-winning, multi-featured download manager used by internet users all over the world. It is designed to help you get any content from the internet. It contains more tools and features for downloading content than any other download manager.

DownloadStudio includes a single file download manager, a file range download manager, a web site download manager, a streaming media download manager, a streaming media recorder, a web site explorer, flash capture, an RSS & podcast download manager and reader, a category organizer, a file browser and more. All features are integrated into an easy-to-use and intuitive user interface.

DownloadStudio integrates into the latest versions of all popular web browsers including Internet Explorer, Firefox, Mozilla, Opera and Netscape. It also works with Internet Explorer-based web browsers such as Avant Browser, Maxthon and Netcaptor.

DownloadStudio has won numerous awards – including being awarded Editors' Choice as the best download manager by PC Magazine in 2004. Its innovative features, it continues to be the best-selling download manager in Japan.

DownloadStudio works on Windows XP Professional, Windows XP Home, Windows 2000, Windows Me and Windows 98SE.

DownloadStudio can be purchased from the Conceiva web site for \$35.95.

For more information about DownloadStudio, visit <http://www.downloadstudio.com>



## 12. About Conceiva Pty. Ltd.

Conceiva is a privately held company headquartered in Melbourne, Australia. Established in 2001, Conceiva consists of a committed team of creative professionals and software specialists.



Conceiva's vision is to create software products and technologies that help customers visualize solutions in the most creative and productive manner possible.

Conceiva leverages its R&D facility in Tokyo, Japan to create innovative products and solutions. An extensive range of client software technologies and Internet server-based technologies are used to create products that empower the creative consumer and creative professional.

For more information, visit <http://www.conceiva.com>.

Contact Conceiva at [info@conceiva.com](mailto:info@conceiva.com).

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