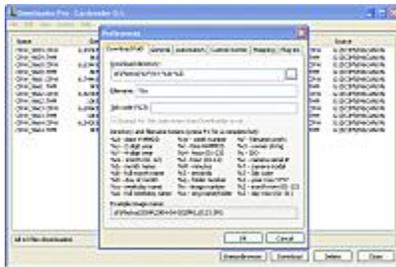


1 Introduction

1.1 Overview

Downloader Pro is a simple but powerful utility for transferring digital images to your PC. Transfer images at the touch of a button, renaming and storing them with the filename and directory names you choose.



Step 1 Set up Downloader Pro preferences to work the way you want



Step 2 Plug in your card reader or DCF compliant camera..... Downloader Pro starts automatically... Downloads your files automatically... and automatically opens the application you set in Preferences.



Step 3 Browse / edit your images. It's that simple! Example (left) shows files downloaded and displayed automatically in [BreezeBrowser Pro](#), the perfect partner for Downloader Pro!

Downloader Pro supports the downloading of JPEG images, raw files from most cameras and video files. It does not support the downloading of the new HEIF image format used by iPhones, iPads and recent high end Canon cameras.

Where to find more information

[What's new in Downloader Pro v2.0?](#)

This overview section of this help gives a quick overview of what Downloader Pro can do.

Please see the [getting started section](#) if you are new to Downloader Pro and would like help getting started.

The [section on preferences](#) gives more detailed help in setting up Downloader Pro and the section on [making the most of Downloader Pro](#) contains useful tips for more experienced users.

If you need more help please visit the [support pages on our website](#) or the [BreezeBrowser forum](#) (this covers all of our products including BreezeBrowser Pro and Downloader Pro).

[Downloader Pro release notes](#)

1.1.1 What's new in Downloader Pro v2.0?

Thumbnail display

When using a card reader images to be downloaded can be displayed as large or small thumbnails. The thumbnail display can be selected from the view menu or by typing Ctrl+T (small thumbnails) or Ctrl+X (large thumbnails).



i:\2006-04-15 Spring flowers\IMG_0766.JPG

The first line of the thumbnail caption shows the image number, filename and file size. The second line shows the date and time the photo was taken. The third line shows the download status and the bottom line shows the download path.

Each thumbnail may represent one or more files to download e.g. Canon CRW raw files and their associated THM thumbnail files are shown as a single thumbnail.

Please note thumbnails cannot be displayed when downloading directly from a Canon camera using a USB or FireWire cable.

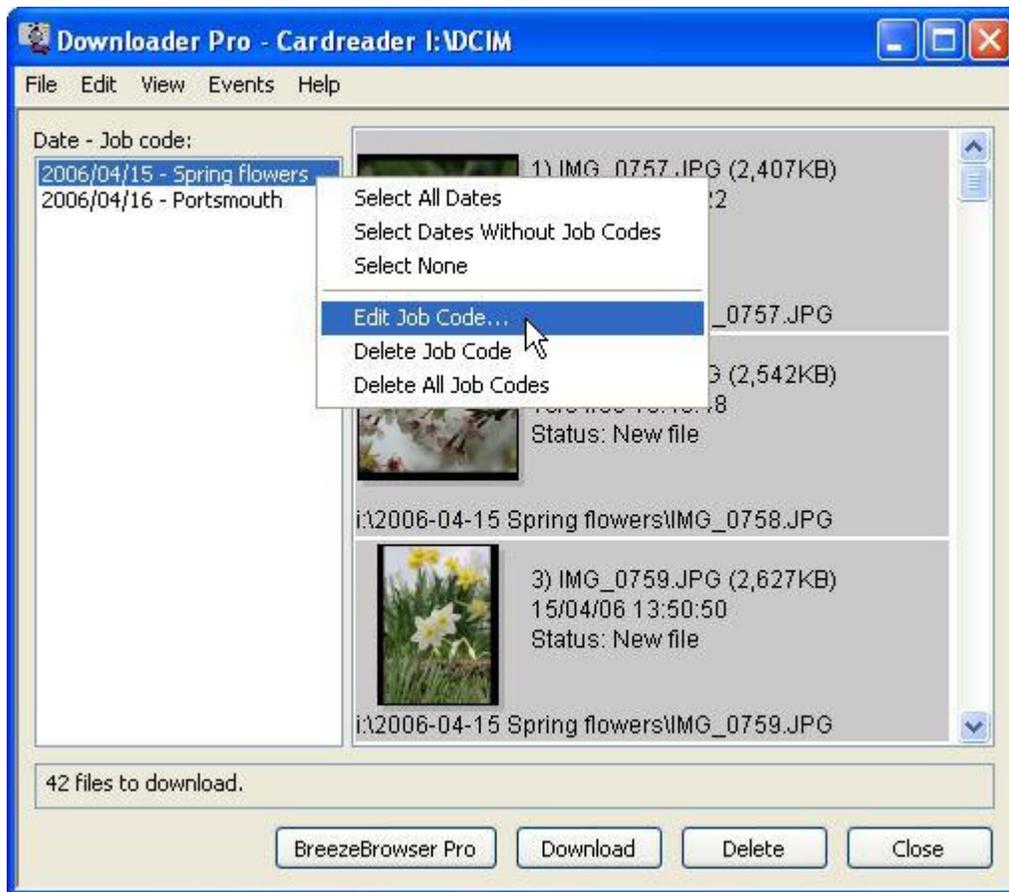
Support for IPTC XMP data

Downloader Pro v2.0 supports the new IPTC XMP standard as used by BreezeBrowser Pro, Adobe Photoshop and other imaging applications. XMP data is added directly to JPEG, TIFF and DNG files and is stored in XMP "sidecar" files for other raw file formats.

Date based job codes

Downloader Pro v2.0 now supports date based job codes. This makes it much easier to download memory cards which span several days and subjects. The image date selector can be displayed by typing Ctrl+Tab or by selecting it from the View menu. One or more dates can be selected from the list (hold the Control key down and click on dates to add them to the selection). When you click on a date the images taken on that date are also selected to make it easier to identify the pictures. Right click on the date to display a menu of options for selecting dates and editing the job code.

Downloader Pro saves the job codes from the last 60 days so that they may be used next time it is run. This feature can be enabled or disabled in preferences.



New token style

Tokens are now enclosed in curly brackets (aka braces) e.g. {a} replaces %a

When Downloader Pro v2.0 is run for the first time it will check for a previous release and automatically convert all the tokens to the new format. Downloader Pro saves its settings separately from previous releases and so you can safely run old and new versions.

New sequence numbering

Now supports the continuous numbering of images using the tokens {seq#}, {seq#2}, {seq#3}, {seq#4}, {seq#5}, {seq#6}. This token allocates sequence numbers to images in timestamp order and will continue numbering from the number of the last image downloaded the next time Downloader Pro is run. The starting number can be reset or set to any required starting value in preferences.

GPS Geo-tagging

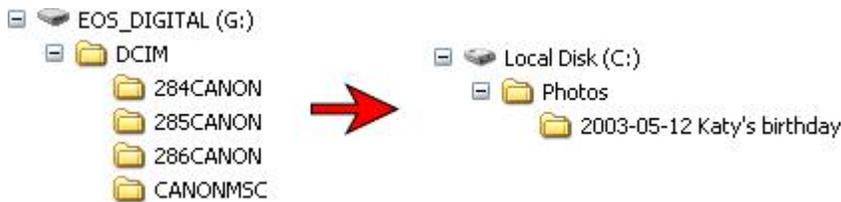
Automatically store GPS location data in images as they are downloaded using track log data from devices such as the Sony GPS-CS1. Please see the section on [GPS Geo-tagging](#) for details.

Backup plug-in extended

The backup plug-in has been extended to allow images to be automatically backed up to two separate locations

1.1.2 Automatic folder naming

Use the folder renaming option to automatically organize your images as you download them:



In the example above the source images are in three separate folders on the memory card and are downloaded to a single folder named with the date the pictures were taken and the subject. The subject can be entered using the "Job code" which can be setup to prompt you every time downloader is run:



For this example the download directory was set to "C:\Photos\{Y}-{m}-{D} {J}"
 {Y}-{m}-{D} expands to the year, month and day the photo was taken and {J} expands to whatever was entered for the job code.

See [Download Preferences](#) for details.

1.1.3 Automatic file naming

Downloader can automatically rename the images from the short eight character names written by the camera to something more meaningful. In the example below the filenames were specified as "{Y}-{m}-{D} {J} {H}{M}{S}" to give the date the photo was taken followed by the subject (the job code entered above) and the time the photo was taken:



See [Download Preferences](#) for details

1.1.4 JPEG rotation

More and more digital cameras have an orientation sensor which detects whether a shot is taken in vertical or horizontal format. The camera stores this information in the EXIF shooting data but unfortunately most applications ignore this data and won't display the image correctly rotated. Downloader can automatically rotate these images without any loss of quality so that they are correctly displayed on your PC.

See [General Preferences](#) for details

1.1.5 IPTC/XMP data entry

IPTC/XMP data is a method of storing textual information in images such as location, keywords, copyright information and captions. Downloader Pro can automatically add this information to images as they are downloaded. This is a big time saver for professional photographers who need to enter IPTC data before submitting images to newspapers and magazines but is also useful to other photographers who wish to record location and other information in their images.

Downloader Pro supports the current Adobe XMP format for storing IPTC data which either stores the data in the image file (e.g. for JPEGs and TIFFs) or uses an XMP sidecar file (e.g. for raw files). Downloader Pro can also optionally store a subset of the IPTC data in the older IPTC IIM format.

See the [IPTC/XMP data](#) page for details.

1.1.6 Plug-ins to extend Downloader's functionality

Downloader has a plug-in interface which allows additional operations to be applied to images as they are downloaded. Downloader ships with three plug-ins:

1. JPEG auto profile - automatically embeds a color profile in JPEGs according to the camera model
2. JPEG resolution - automatically sets the resolution to a user defined DPI or dots/cm value making it easier to set the print size in applications like Adobe Photoshop
3. Directory Maker - creates empty directories to support your workflow e.g. in addition to the download directory this plug-in can create directories called working, finished, edited, web etc.
4. Backup - automatically copies downloaded files to a second destination e.g. a separate external hard disk.

See the [Plug-ins page](#) for details

1.1.7 Support for external storage devices

Downloader supports the downloading of images from external storage devices such as the NixVue Vista and Delkin PicturePad. It automatically scans the disk to detect duplicate files and will only download one copy of each file. Downloader also has display options to hide files that have already been downloaded and duplicates to make it easier to see the files that need downloading.

1.2 Getting started

If you are using a card reader

[Quickstart guide](#)

If you are downloading directly from a camera

[Downloading from a camera](#)

The Main Screen

[Description of Downloader Pro's main window](#)

More information

[Overview of Downloader Pro](#)

[Using filename and directory tokens to automatically specify the download directory and rename files as they are downloaded](#)

[Making the most of Downloader Pro](#)

Automating your workflow

[Automatically downloading images when Downloader Pro is run](#)

[Launching other apps to view your images after downloading](#)

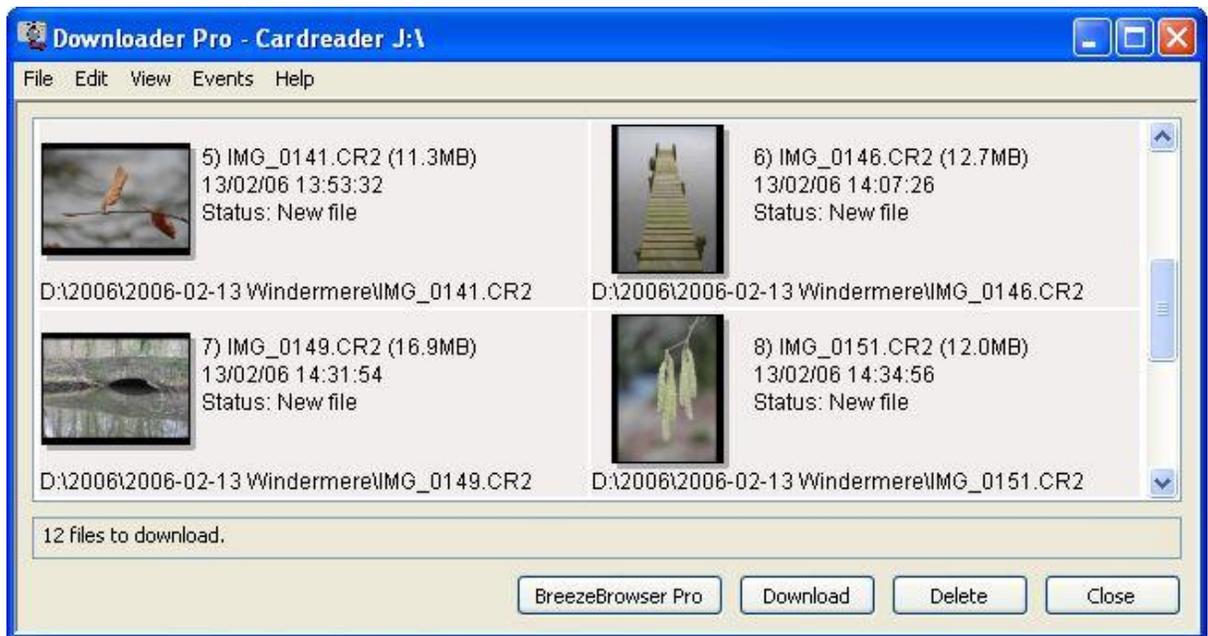
1.2.1 Quickstart fGuide

Follow the instructions below to setup Downloader Pro so that it runs automatically when a memory card is inserted in your card reader:

1. Install Downloader Pro
2. Plug-in your card reader to your PC if it isn't already connected and then insert a memory card containing some images. A dialog similar to the one below will be displayed:

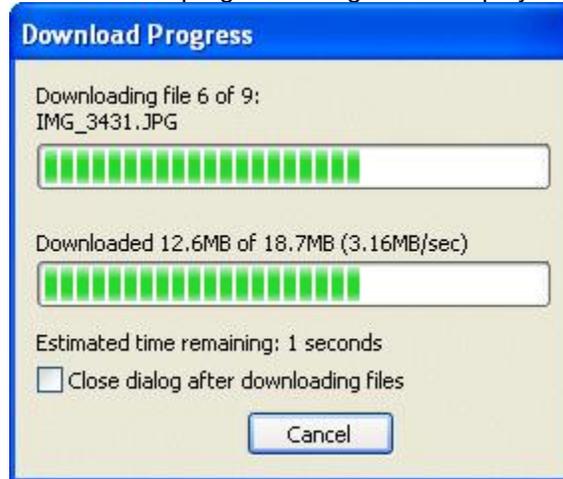


3. Click on the "Download images" camera icon and then click OK to launch Downloader Pro to download your images. Downloader Pro will run and display a window similar to the one below:



- Click on the Download button to start downloading the images. The images will be copied to the directory shown in the "Download path" column (D:\2006-02-13\Windermere for photos taken on 13th February 2006 in the example above).

The download progress dialog will be displayed:



- Click on the Close button to dismiss the download progress dialog when the download has finished. Your images are now on your PC's hard disk and ready for editing or viewing. Now either click on Delete button to delete the images from the memory card or the Close button to exit Downloader Pro.

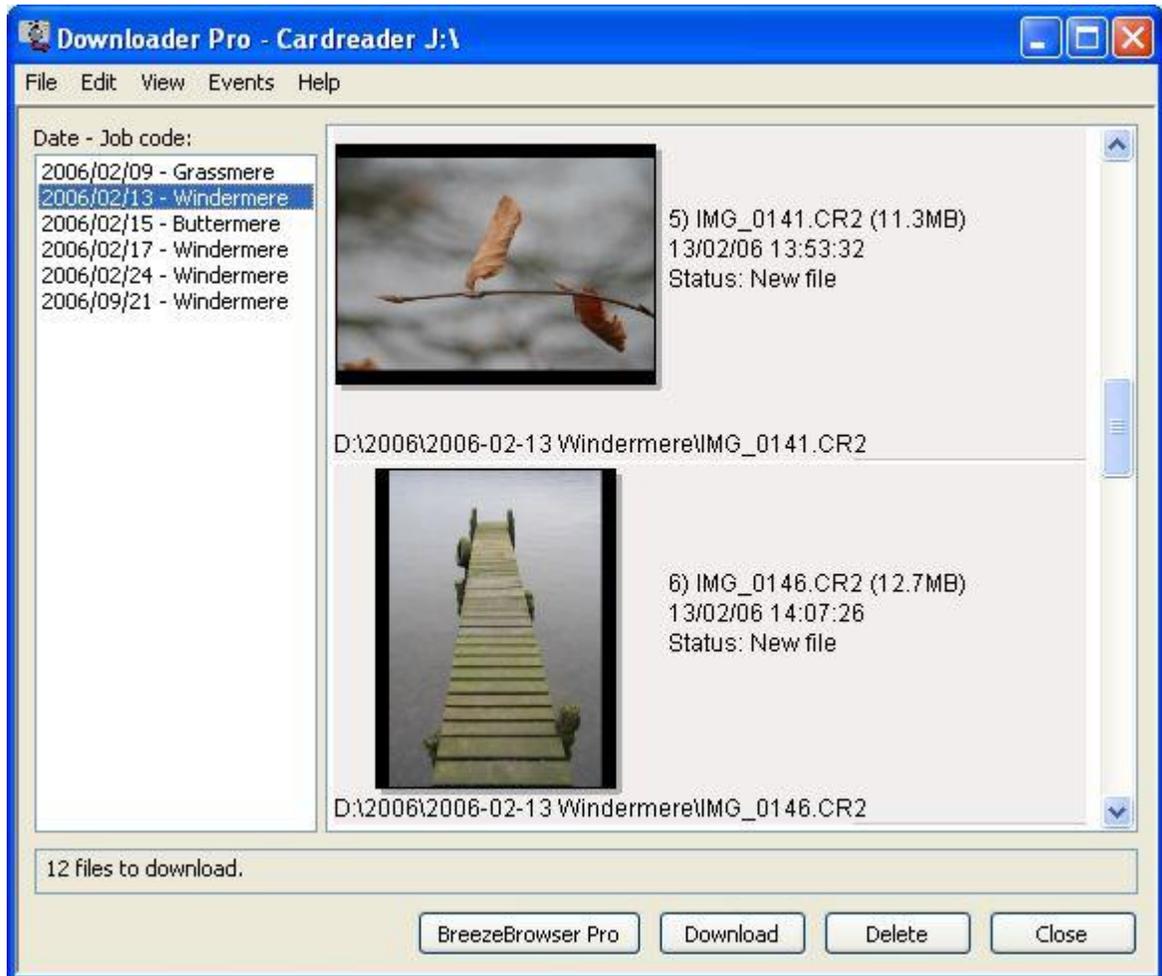
Further information

To find out more about specifying which directory and filename photos are stored under see [Using filename and directory tokens](#).

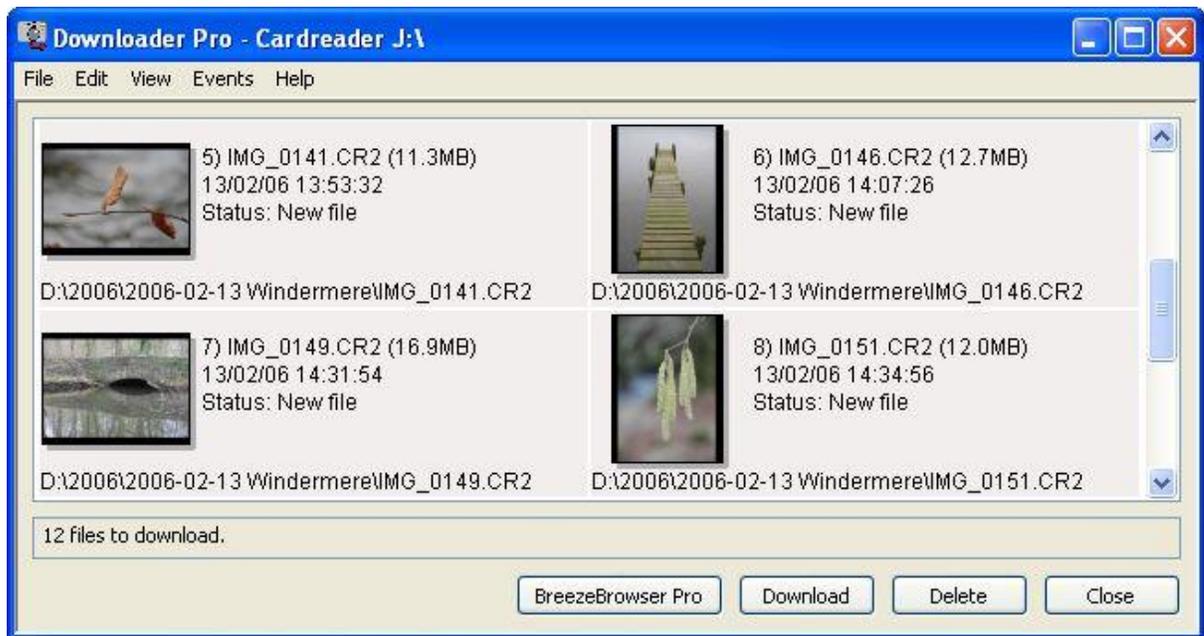
The section on ["Making the most of Downloader Pro"](#) contains useful hints and tips on setting up Downloader Pro.

1.2.2 The main screen

The main screen lists the image files in the camera or card reader together with their size, date, status and their download directory on the computer. The images to be downloaded can be displayed as large or small thumbnails or as a list as shown in the screenshots below. The different views can be selected using the View menu.



Large thumbnails with date and job code selector displayed

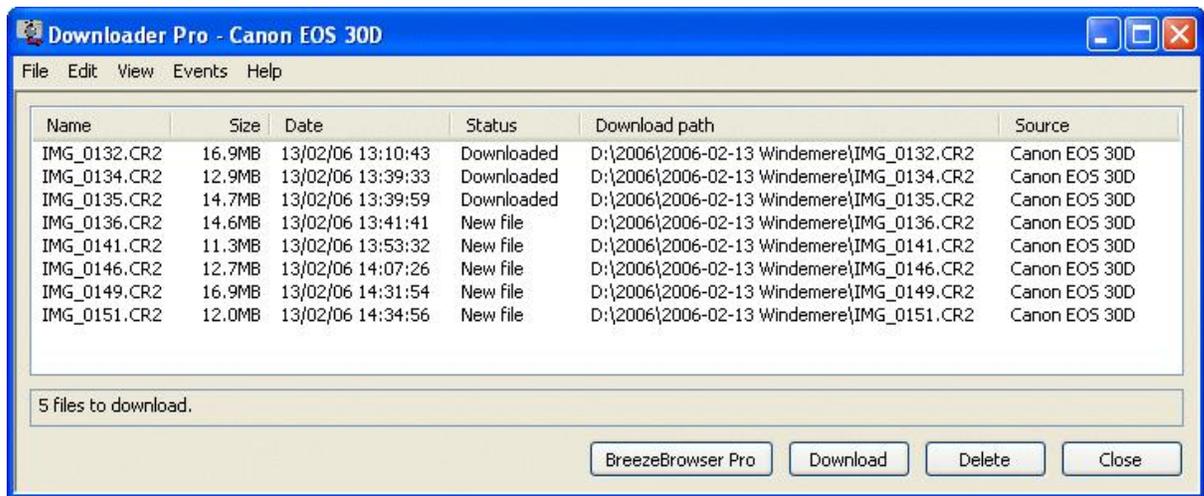


Small thumbnails



The first line of the thumbnail caption shows the image number, filename and file size. The second line shows the date and time the photo was taken. The third line shows the download status and the bottom line shows the download path.

Each thumbnail may represent one or more files to download e.g. Canon CRW raw files and their associated THM thumbnail files are shown as a single thumbnail.



List view.

In the list view the order in which the files are displayed can be changed by clicking on the column heading of the list.

The status is one of the following:

Status	Description
Downloaded	A file of the same name, size and timestamp is in the download directory (i.e. it has probably been downloaded already). It will not be overwritten when "Download" is pressed.
New file	No file of that name exists in the download directory. The file will be downloaded to the download directory when "Download" is pressed.
Size different	A file of the same name but with a different size is in the download directory. This probably means that the file has already been downloaded and has been edited. It will not be overwritten when "Download" is pressed.
Time different	A file of the same name and size but with a different timestamp is in the directory. This probably means that the file has already been downloaded but has been changed in some way. It will not be overwritten when "Download" is pressed.
Duplicate	Two or more source files of the same name and download path exist and appear to be identical copies. This can happen when transferring a memory card more than once to an external storage device such as the PicturePad or MindStor. Only one copy of the file will be download.
Name clash	Two or more source files of the same name and download path exist but differ in size, date or other attributes. These files will not be downloaded or deleted by Downloader.

Press "Download" to download all files with status "New file" or "Duplicate" to the download directory. To change the program's settings, including the download directory, display the Preferences dialog by clicking on the File menu and selecting "Preferences...".

Normally Downloader will download all files that need downloading. To download selected files only simply select the required files in the list and press the "Download" button and a prompt will be displayed asking whether you want to download the selected images or all the images.

Press "Delete" to delete downloaded files from the camera. Normally Downloader will delete all files that have been successfully downloaded. To delete selected files only simply select the required files in the list and press the "Delete" button and a prompt will be displayed asking whether you want to delete the selected images or all the images.

Note: Downloader will only delete files which have been downloaded to the computer and have the same date/time and file size as the files stored on the camera.

You can specify the download directory and optionally rename image files as they are downloaded. Please see Preferences for more details.

The "BreezeBrowser Pro" button shown above is a custom button which can be set to any caption you like and setup to launch an application of your choice (see the [Custom Button section](#) for more details).

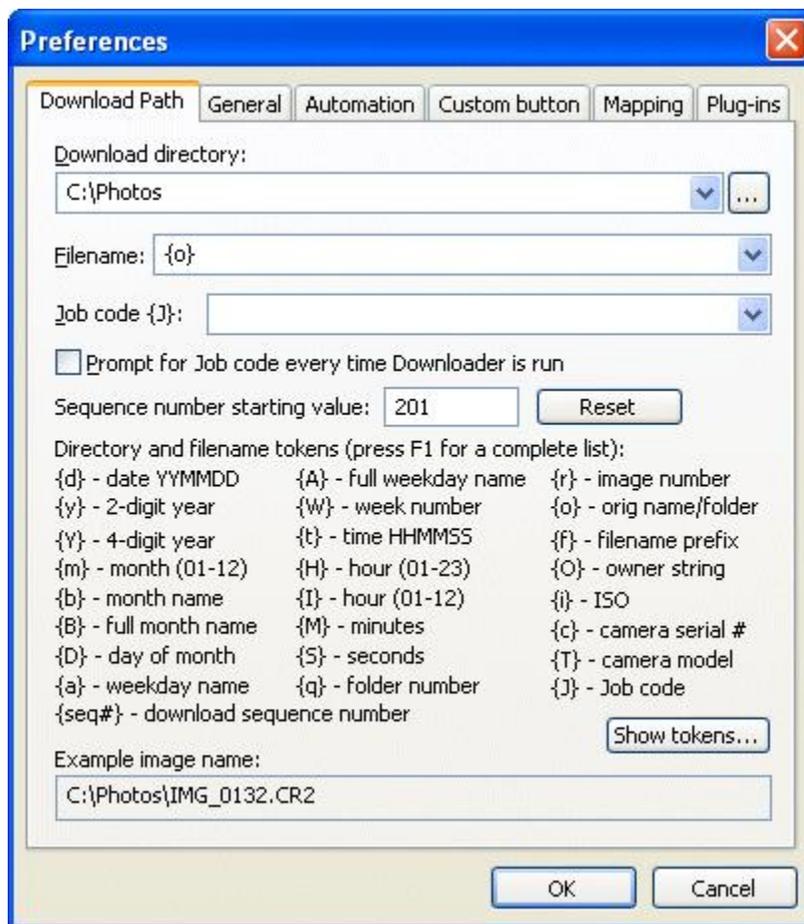
All settings are stored when the program exits and are restored the next time it is run.

A more detailed description of a file's download status can be displayed by right clicking on its name in the list and selecting "Download status" from the menu.

1.2.3 Using filename and directory tokens

Filename and directory tokens are used to include information such as the date or time a picture was taken to specify the download directory and filename. Each token is enclosed by curly brackets (aka braces) e.g. {d}.

The easiest way to explain this is to use an example. Let's suppose you wish to download all your images to a directory called Photos on your main hard disk, the C: drive without renaming the images. To do this you would go to Preferences (click on the File menu and select Preferences) and set the download directory to C:\Photos and the filename to {o} as shown below:



The {o} for the filename means "use the original filename written by the camera" e.g. IMG_3426.JPG.

This simple setup is OK but all your photos would be stored in the same directory and as you take more pictures it would soon become difficult to find the picture you want. A better solution would be to store your photos in different directories according to when they were taken for example a separate directory for each year and month. You can do this by setting the download directory to C:\Photos\{Y}\{m}. The {Y} will be set to the year the picture was taken, e.g. 2006, and {m} is set to the month e.g. 11 for pictures taken in November.

Now when you download your photos they will be automatically stored in the appropriate directory according to the date when they were taken.

e.g. photos taken in November 2006 will be stored in C:\Photos\2006\11 and photos taken in December 2006 will be stored in C:\Photos\2006\12.

If you take a lot of photos you might prefer to store each day's photos in a separate directory e.g. by setting the download directory to C:\Photos\{Y}\{Y}\{m}\{D}. This would store photos in directories like:

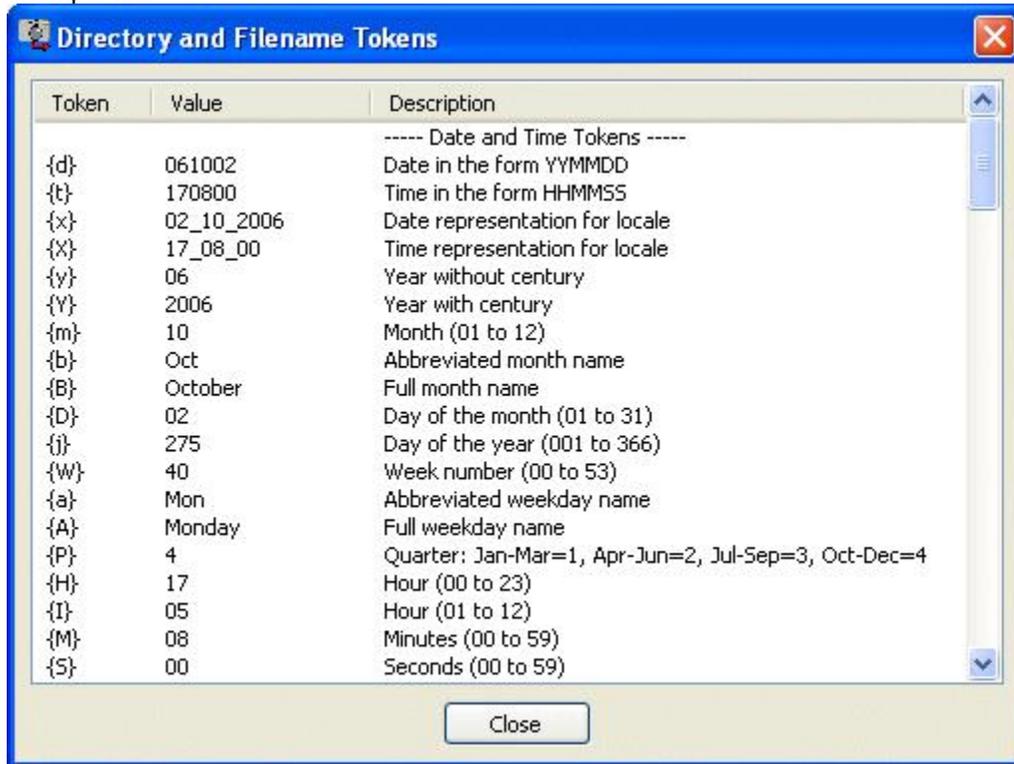
C:\Photos\2004\2006-12-30 (photos taken on December 30, 2006)
 C:\Photos\2004\2006-12-31 (photos taken on December 31, 2006)
 C:\Photos\2005\2007-01-01 (photos taken on January 1, 2007)

Note: It is a good idea to specify dates in the order year, month, day so that when a directories are displayed in your image browser in alphabetical order they will also be in chronological order.

You can use the same technique with the filenames. The filenames given by the camera aren't particularly useful e.g. IMG_0123.JPG, IMG_0124.JPG. The "IMG_" prefix is the same for all images

and doesn't contain any useful information. You could replace this with the time the picture was taken so that you can tell when a picture was taken just by looking at its filename. To do this set the filename to {t}_{r}. {t} will be set to the time the picture was taken in the form HHMMSS (e.g. 191500 for exactly 7:15pm). {r} is set to the four digit image number.

Press the "Show tokens..." button to display a list of the available tokens and their values for the example file:



Please see the [Download path section](#) for more details and suggestions for setting up your download path.

A complete list of the tokens that can be used for filenames and directories can be found [here](#).

1.2.4 Displaying thumbnails and playing WAV and AVI files

Double click on an image to display a thumbnail image and shooting data summary of a file (or right click on the image and select "Show thumbnail"):



Click on the "<< Prev" and "Next >>" buttons or use the cursor keys to step through other images. Double click on a sound annotation file (WAV) or video movie (AVI) to play it in whatever application has been registered with Windows to handle the files (normally Windows Media Player).

Note: Thumbnail display and the playing of AVI and WAV files is only available when downloading from a card reader.

1.2.5 Downloading from a camera

Downloader can download directly from Canon EOS cameras and older Canon PowerShot cameras. Please install the appropriate Canon USB drivers first. The latest drivers can be downloaded from www.powershot.com. Then run Downloader and go to Preferences (by typing Ctrl+P or selecting preferences from the File menu). Click on the "General" tab, set the image source to "Auto-detect" or "Camera". Connect your camera to the USB or FireWire cable and then press F5 in Downloader to connect and list the files to be downloaded. Some camera models auto-detect the USB connection and powerup in PC transfer mode. Other models have to be turned on manually and may also need to be set to PC transfer mode.

Downloader can also download images directly from some cameras via a USB or FireWire connection. Some cameras, e.g. Nikon cameras, appear as a drive letter when connected to your PC. If you have a camera that works this way you can download from it as if it is a card reader.

1.2.6 GPS Geo-Tagging

Introduction

Geo-tagging is the writing of geographical information in image files. Downloader Pro can automatically geo-tag JPEG and raw files by storing positional information in the form of latitude and longitude read from track log data from a GPS device. This information is written to the standard EXIF GPS shooting data stored in JPEG files and in the XMP sidecar file for raw files and can be read by image browsers such as [BreezeBrowser Pro](#).

Many handheld GPS devices can store a track log which can be downloaded to a PC. The track log contains both positional data in the form of latitude and longitude and the time in UTC (aka GMT). Downloader Pro is able to read the track log data and the time each picture was taken and use this to calculate where the picture was taken. It is important that the camera's clock is set accurately in order for this to work.

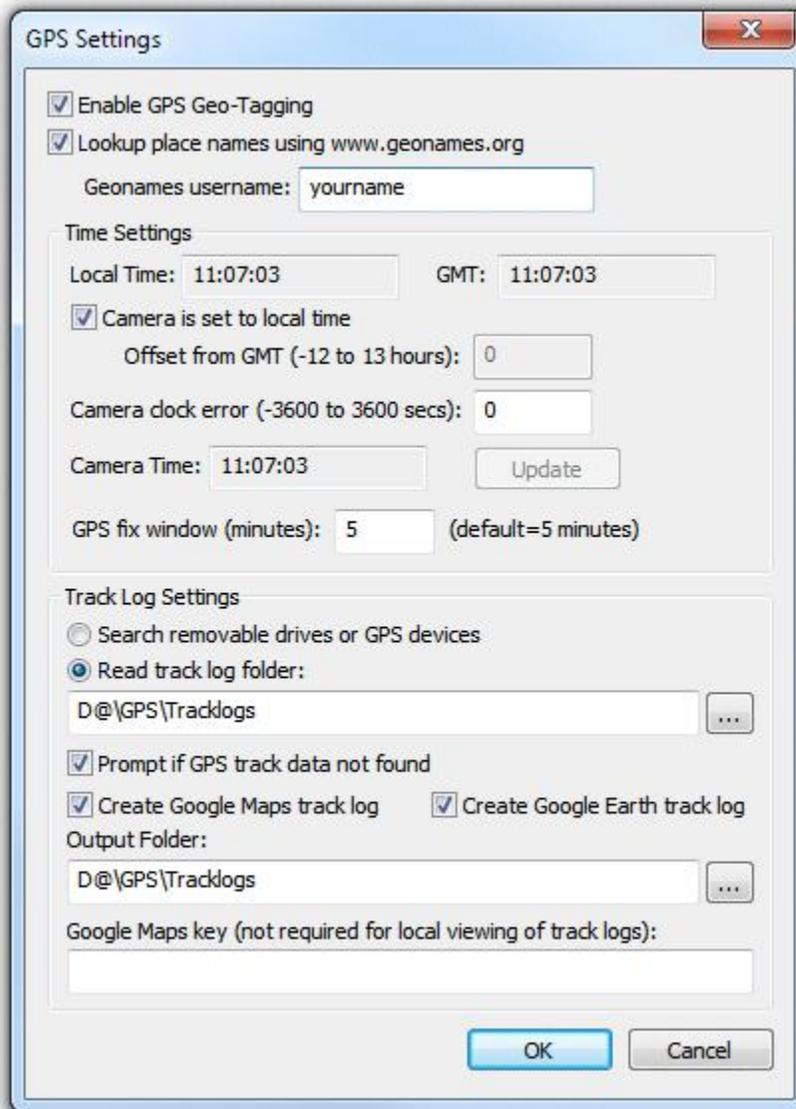
Some GPS devices such as the Sony GPS-CS1 GPS Tracker are designed specifically for photography and are very convenient to use with Downloader Pro. The Sony device is simply turned on before you start taking pictures and automatically logs your position every 15 seconds. When you download your photos you connect the GPS Tracker to your computer using a USB cable and Downloader Pro will automatically read the track logs and store the latitude and longitude in your files as they are downloaded. It can also optionally create a track log file which can be viewed in Google Earth or Google Maps.

With other GPS devices it may be necessary to download the track logs to your PC before downloading your images. Many GPS devices simply appear as a removable drive when connected to a PC using a USB cable and can be accessed directly by using the "Search removable drives option". Please consult the manual for your GPS device for information on how to download the track log to your PC.

Downloader Pro is able to read track log files in NMEA format with a .log or .nmea file extension or GPX files with a .gpx or .xml file extension. The free [GPSBabel utility](#) can be used to convert between many different GPS formats if your GPS isn't able to store track log data in NMEA or GPX format.

Setup

Select "GPS settings..." from the Edit menu in Downloader Pro to enable and setup GPS geo-tagging.



Place Names Lookup

When "Lookup place names using www.geonames.org is selected Downloader Pro will connect to the internet to lookup the place name and other information using the latitude and longitude for the image. You also need to provide your Geonames username when using the Geonames service. You can create an account by visiting the Geonames website: www.geonames.org. This information is stored in the tokens shown in the example below and can be used to automatically add place name data to the [IPTC/XMP data](#).

Token	Example
{geonames_name}	Winchester
{geonames_countryName}	United Kingdom
{geonames_adminName1}	England
{geonames_adminCode1}	ENG
{geonames_countryCode}	GB

{geonames_lat}	51.0651332044118
{geonames_lng}	-1.31870269775391
{geonames_population}	0
{geonames_fcl}	P
{geonames_fclName}	city, village,...
{geonames_fcode}	PPL
{geonames_fcodeName}	populated place
{geonames_distance}	0.5418
{geonames_geonameId}	2633858

If Downloader Pro is unable to obtain place name information the tokens above will be replaced with empty values.

Time Settings

It is important that Downloader Pro is told what time the camera's clock is set to so that it can use the timestamps of the images to read the location data from the GPS track log. Normally both the camera and the computer are both set to local time and you only need to select "Camera is set to local time". If your camera is set to a different time zone from local time "Camera is set to local time" should be unchecked and the time zone offset wrt to GMT should be entered e.g. New York in the summer time (during DST) is four hours behind GMT and so a value of -4 for should be entered for the offset from GMT.

If your camera clock is out by a few minutes you can compensate for this by entering a value in the "Camera clock error" field.

If you are unsure that the time settings have been set correctly you can check them by comparing the "Camera time" display with the current time displayed in the setup menus on your camera.

The "GPS fix window" setting specifies how close the time of a GPS fix in the track log needs to be to the time the picture was taken for it to be accepted. Setting a large value will increase the chances that a GPS fix will be found in the track log but it may not be very accurate if the GPS track log has gaps in its data e.g. if you turn the GPS on, take some pictures in one location for a while then turn the GPS off, drive to a new location and forget to turn the GPS on again before taking more pictures DLPro will record the first location for the second set of pictures if the "GPS fix window" is set to a large value. If the "GPS fix window" is set to a small value (smaller than the time to drive from the first location to the second location) it won't find a suitable GPS fix in the track log.

Please note: Setting a large value for the "GPS fix window" only affects the accuracy of the GPS data stored in the image if there are gaps in the GPS track log. If the GPS track log contains a fix within a few seconds of when the picture was taken an accurate position will be stored in the shooting data of the image even if the "GPS fix window" is set to a large value.

Track Log Settings

Downloader Pro also needs to know where to find the GPS track log files and this is specified in the "Track log settings" section.

Some GPS devices such as the Sony GPS-CS1 simply need to be connected to the PC using a USB cable and they will appear as a removable drive. With these types of devices Downloader Pro will be able to find the track log files when the "Search removable drives" option is selected.

GPS receivers such as the Garmin etrex Venture CX can also be used in this way provided the track logs are stored on a data card and the USB Mass Storage interface option is selected (please see the GPS receiver's manual for details).

Many other GPS devices can't be connected directly to a PC as a removable drive and it is necessary

to download the track log files to the PC. With this type of device you need to download the track log files to your PC and enter the location of the track log folder in the GPS settings dialog before downloading your photos.

Downloader Pro reads standard NMEA track log files with a .log or .nmea file extension and GPX or Garmin ForeTrex XML files with a .gpx or .xml file extension.

Downloader Pro can generate a track log file that can be viewed using Google Earth or online using Google Maps. To do this simply select the type of track log files you require and specify an output folder where Downloader Pro should write the files. Google Earth track log files have a .kml file extension and can be viewed by double clicking on the file in Windows Explorer. Google Maps track log files are web pages and have a .htm file extension. They can be viewed in a web browser by double clicking on the file in Windows Explorer.

Please note: Google Earth needs to be installed on your computer in order to view Google Earth track log files. A free download is available on the [Google Earth web site](#). If you wish to display Google Maps on your website you will need to obtain a Google Maps API key from <http://www.google.com/apis/maps/> (this is free for consumer use) and enter this in the "Google Maps Key" field in the GPS Settings dialog.

GPS Accuracy

GPS devices are typically accurate to around 10 or 20 meters and usually write track log data at regular intervals e.g. every 15 secs. Some GPS devices also store altitude data in the track log file but this tends to be less accurate than the positional data (latitude and longitude). Downloader Pro reads the time the picture was taken using the shooting data stored in the image and uses this to interpolate the position using the location data stored in the track log file.

Please note:

1. Track log data usually isn't written if there is no GPS signal which can happen in built up areas with tall buildings, in tunnels or inside buildings. When this happens Downloader Pro will interpolate between the nearest GPS location data from when a picture was taken and this may result in an inaccurate position.
2. File size checking is disabled for JPEGs when GPS geo-tagging is enabled. This has the same effect as setting the "Ignore file size checking" option in [Downloader Pro's preferences](#).
3. It is recommended that the "Use image capture time for file timestamp" option is set in [Downloader Pro's preferences](#) so that the time the picture is taken is read from the shooting data stored in the image rather than using the file timestamp. This will avoid problems geo-tagging images which have been modified after they were taken.

Checking Settings Before Downloading

A summary of the GPS track logs available can be displayed by selecting "Check GPS track logs" from the Edit menu. This will display a list of all the track logs found, the number of GPS fixes they contains and the date and times of the oldest and newest fixes in the log.

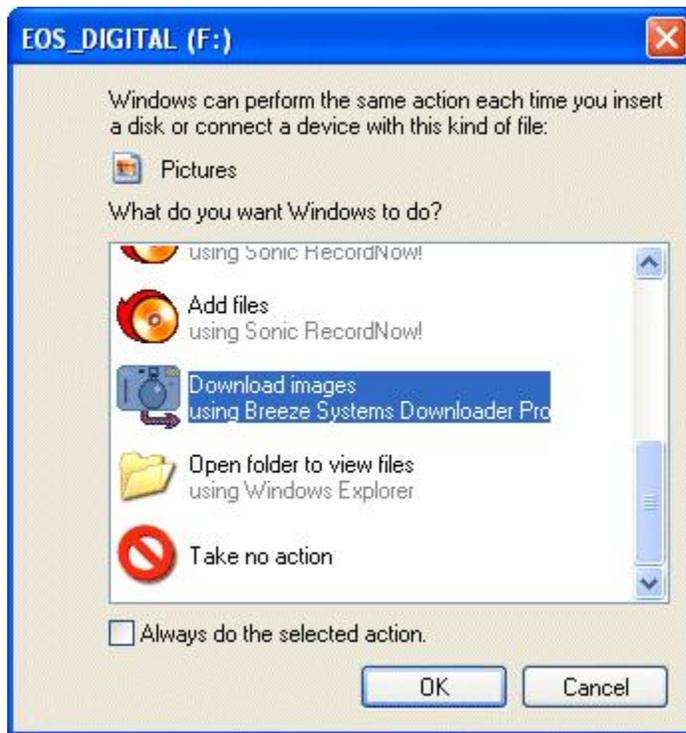
A summary of the GPS data available for a particular image can be displayed by right clicking on the image and selecting "Check GPS data". This will display the filename, image date and time, date and time adjusted to UTC, the name of the track log and latitude, longitude and altitude data if available. The place name data obtained from www.geonames.org will also be displayed if this option was selected in the GPS setup dialog. The screenshot below shows an example:



1.2.7 Launching Downloader Pro when inserting a memory card in a card reader

When Downloader Pro is installed on a computer running Windows 7 or later it is automatically added to the list of applications Windows displays when a memory card containing images is inserted in a card reader.

Windows will display a dialog similar to the one below when you insert a memory card containing pictures into your card reader. Simply double click on the "Download images" camera icon to download your pictures using Downloader Pro.



You can tell Windows to automatically launch Downloader Pro without displaying this dialog by selecting "Always do the selected action".

1.2.8 Command line switches

Downloader Pro recognizes the following switches on the command line:

/d "str"	specify a new directory format string
/f "str"	specify a new file format string
/j "str"	specify a job code string
/p "str"	specify user profile to load at startup
/s n	specify a new image source - 0=auto, 1=camera, 2=cardreader

This is useful if you want to create several desktop shortcuts to run different ways e.g. you may share a camera and want to download images to different locations. You could create two desktop shortcuts and add the command line switches below:

Shortcut 1: /d "D:\Johns photos\{d}"

Shortcut 2: /d "D:\Marys photos\{d}"

When you launch Downloader Pro using shortcut 1 the download directory will be set to "D:\Johns Photos" + the date the photos were taken.

Please note: When using the /p option to load a user profile any other command line options should be placed after /p otherwise they will be ignored.

e.g. use:

/p "Johns profile" /d "D:\Johns photos\{d}"

not:

/d "D:\Johns photos\{d}" /p "Johns profile"

1.2.9 Hiding unnecessary files

You can turn off the listing of files that have already been downloaded by going to the "View" menu and unchecking "Show downloaded files". This is useful if you are downloading from an external drive such as the NixVue Vista or Delkin PicturePad when there is a very large number of files. Hiding the downloaded files makes it easier to see the files that haven't been downloaded yet.

External drives such as the NixVue Vista or Delkin PicturePad work by taking a complete copy of the contents of your memory card. If you are in the habit of copying a memory card, adding some more images and copying it again you will end up with some duplicate files on your external drive. You can instruct Downloader to only display one entry for each duplicate file by unchecking "Show Duplicate files" in the view menu.

Downloader displays a file as "Duplicate" if it has the same name, size and timestamp as another file on the source disk and has not been downloaded already. If one of the duplicate files has already been downloaded all the duplicates will be displayed as "Downloaded".

1.2.10 Copying files already on your hard disk

You can use Downloader's renaming, IPTC and plug-in features on images already downloaded to your hard disk. To do this first run Downloader and then either select "Open source directory..." from the File menu or drag and drop the source folder onto the Downloader window. A prompt will be displayed asking you whether you wish to use the folder as the image source. If you answer yes Downloader will scan the dropped folder and all its sub folders for known image types. You cannot drag and drop a whole drive in this way, the folder must be a subfolder. Downloader will not allow you to download or delete any files if the download path is the same as or is a subfolder of the source folder e.g. you can't download from D:\Photos to D:\Photos\COPY.

WARNING: Please use this function with care and do not delete any source images until you are sure they have been copied correctly.

1.2.11 Camera settings dialog

Select "Camera Settings" from the file menu when connected to Canon EOS cameras and older Canon PowerShot cameras to display the "Camera Settings" dialog:



This dialog shows information about the camera and allows you to synchronize the camera's internal clock with your PC's clock and set the Canon camera owner string. Recent Canon EOS camera models such as Canon EOS 50D and Canon EOS 5D Mark II also support the setting of the artist and copyright fields. These fields will not be shown if the camera does not support them.

Please note: It may not be possible to synchronize all Canon cameras with the PC's clock to the exact second but it is possible for it to be no more than one second out of sync.

Select "Automatically synchronize clock when camera is connected" if you would like Downloader Pro to automatically synchronize the camera's clock to the PC's time each time it connects to the camera.

1.2.12 Download complete sound

This is an experimental feature. To enable this simply place a .wav file named complete.wav in the Downloader installation directory and it will be played when the download has been completed. There is an example file called _complete.wav which you can use by renaming it to complete.wav or you can provide your own file or recording.

2 Installing, upgrading and registering Downloader Pro

2.1 Installing Downloader Pro

Getting the latest release

The latest copy of Downloader Pro can be downloaded from www.breezesys.com. You can check to see if you are running the latest version by running Downloader Pro and selecting "Check for updates" from the help menu.

Installing Downloader Pro

To install Downloader Pro simply run the setup program and follow the on-screen instructions.

Downloader Pro can be uninstalled using the standard Windows "Add/Remove Programs" dialog available from "Control Panel".

Upgrading

If you are upgrading your copy of Downloader Pro please uninstall the old version first and then install the new version. You shouldn't need to re-enter your registration code, but it is a good idea to keep a copy just in case.

2.2 Registering Downloader Pro

The unregistered version of Downloader Pro is fully functional and can be evaluated for 30 days after which time it will stop working. During the evaluation period it will display the dialog below every time it is run. Click "Cancel" if you are not ready to purchase Downloader Pro yet and wish to continue evaluating it.

If you have already purchased Downloader Pro and have received your registration email you can enter your details now and then press the "Register" button.



The image shows a Windows-style dialog box titled "Downloader Pro Registration". The dialog has a blue title bar with a close button (X) in the top right corner. The main content area is light beige and contains the following text:

Evaluation copy, 23 days remaining.
If you have already purchased Downloader Pro and have received your registration details please enter them below and press the "Register" button.

There are two input fields: "Name:" followed by a text box, and "Code:" followed by a text box.

Below the input fields, the text reads: "Press the "Buy Online" button to visit the Breeze Systems website to purchase a copy of Downloader Pro. Press "Cancel" to continue without entering a registration code. You may evaluate this software for 30 days after which time it will stop working unless a valid registration code is entered."

At the bottom of the dialog, there are three buttons: "Buy Online", "Register", and "Cancel".

Please enter your registration details and press the "Register" button. You may find it easier to cut and paste the code directly from your registration email.



To purchase a licence for Downloader Pro please visit our website: <http://www.breezesys.com/Downloader> or press the "Buy Online" button to go directly to the online ordering web page. You will be sent an email containing your registration details when your payment has been received.

You can also display the registration dialog above by clicking on the "Help" menu, selecting "About Downloader Pro..." and clicking on the "Register..." button.

3 Making the most of Downloader Pro

This section contains useful hints and tips on making the most of Downloader Pro:

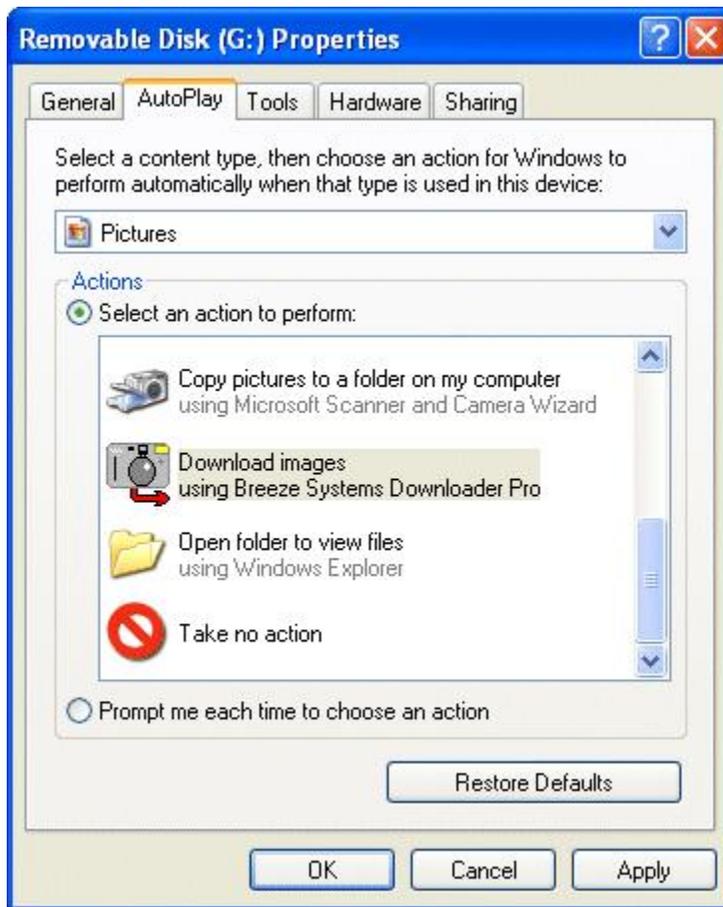
- [Running Downloader Pro automatically](#)
- [Entering the subject or Job Code](#)
- [Downloading from more than one camera](#)
- [IPTC/XMP data](#)
- [Sequence numbers and unique numbering](#)

Note: Backup copies of images can be made automatically as they are downloaded using the [backup plug-in](#)

Tip: Many applications and file managers display files and folders in alphabetical order and storing dates in the form year/month/day will ensure that they are also in chronological order. e.g. the token {d} will show the date November 22, 2006 as 061122

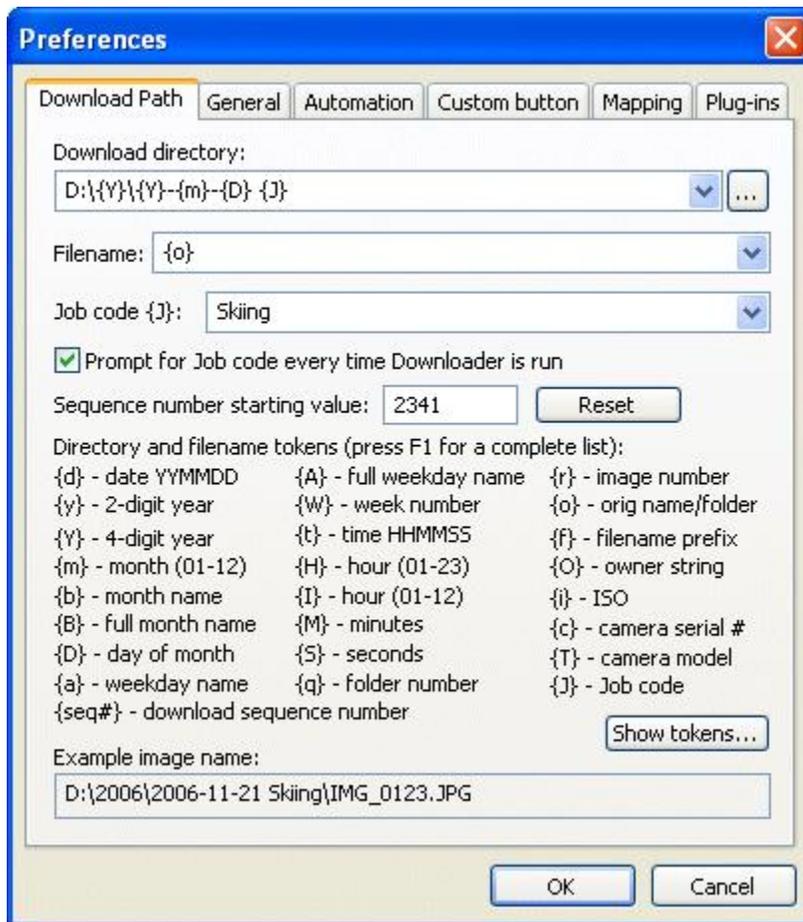
3.1 Running Downloader Pro automatically

Downloader Pro can be setup to run automatically when a memory card is placed in a card reader. To do this run Downloader Pro and then select "Register for AutoPlay events" from the "Events" menu. You can setup the way Windows handles AutoPlay events for each drive by right-clicking on the drive icon in Windows Explorer and selecting "Properties". Then click on the "AutoPlay" tab, select "Pictures" from the drop down list and select the required action:



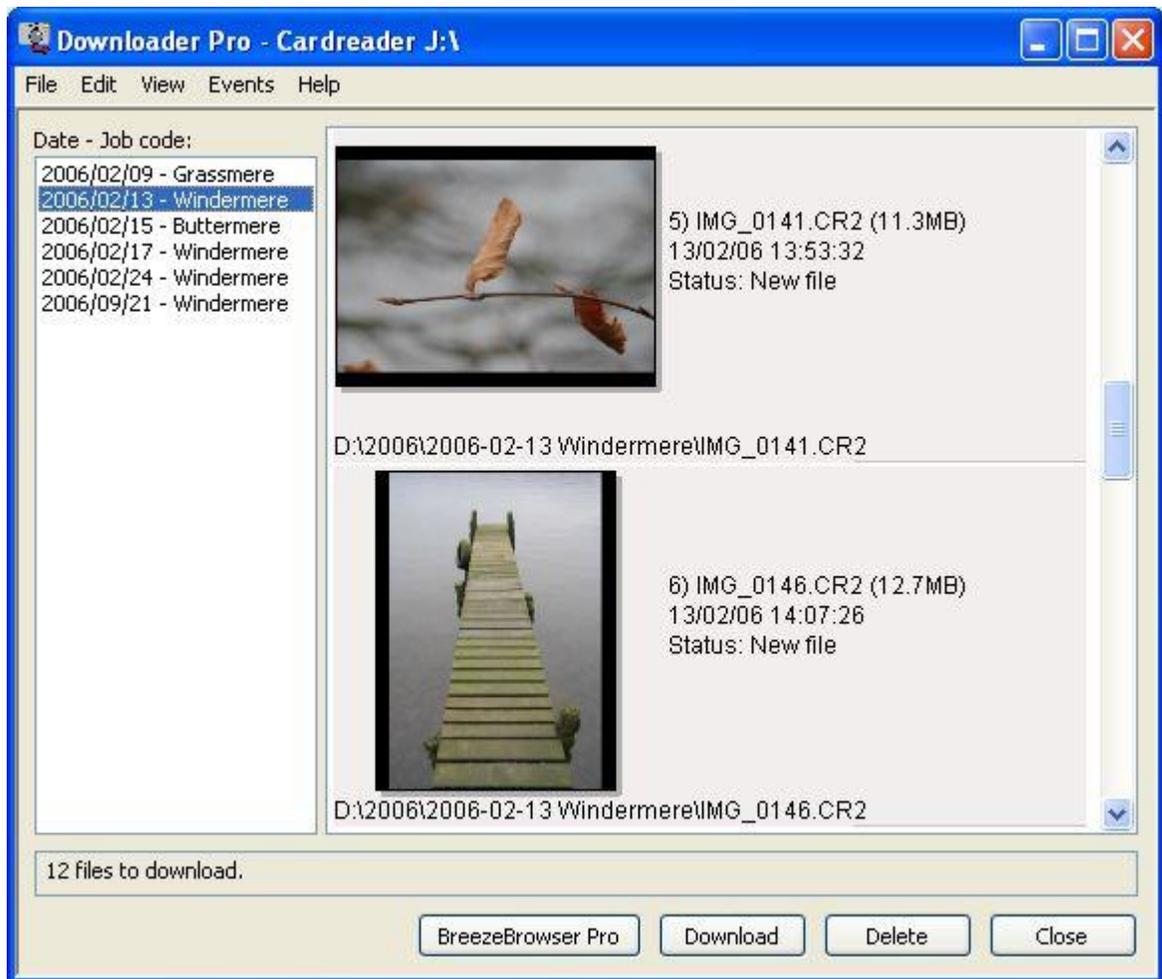
3.2 Entering the subject or Job Code

Often all the pictures being downloaded are of the same subject (e.g. a birthday or a holiday) and it is useful to include this in the download path. This can be done using the "Job Code". To do this run Downloader Pro and select "Preferences" from the "File" menu. Then edit the download path to include the {J} token and select the "Prompt for Job code every time Downloader is run" as shown in the example below:



Now every time Downloader Pro is run you will be prompted to enter the job code (or subject) and the download directory will have this appended to its name. For example you've just been skiing and so you might enter "Skiing" for the job code so that all the photos are downloaded into the directory: "D:\Photos\2006\2006-11-21 Skiing"

You can also enter different job codes for photos taken on different days. To do this first display the image date selector by selecting it from the View menu. Then right click on the required date, select "Edit job code..." and enter the job code. Downloader Pro can store the job codes for the last 60 days (see [General Preferences](#)) which is useful if several memory cards were used for a vacation or event.



Downloader Pro's main view with large thumbnails displayed and different job codes for photos taken on different days

3.3 Downloading from more than one camera

Sometimes you need to download images from several different cameras on the same computer e.g. if several members of a family each have a digital camera or a professional photographer who has more than one camera. This section suggests different ways that Downloader Pro can download images to the right places automatically.

Suggestions for when several people download their images on the same computer

Lets suppose Bob has a Canon PowerShot G7 and Mary has a Nikon Coolpix 5700 and they both want to download their images on to the same computer. They want to store the images on the same hard disk but they also want to be able to easily tell each other's pictures apart. Here are some suggestions for how to do this:

1. Downloader Pro stores settings for each user and so one method would be for Bob and Mary to have separate user accounts and setup their own personal settings.
2. Since Bob and Mary use different camera models the download directory could use the camera model name to separate their images. The token {T1} translates to "G7" for pictures from Bob's Canon PowerShot G7 and "E5700" for pictures from Mary's Nikon Coolpix 5700. They could specify the download path as C:\Photos\{T1}\{Y}-{m}-{D} so that pictures are downloaded to

directories like:

C:\Photos\G7\2006-11-04

C:\Photos\E5700\2006-11-04

3. An alternative to option 2 above is to use the camera mapping setting in preferences to map the camera model name to something more meaningful e.g. map "Canon PowerShot G7" to "Bob" and "E5700" to "Mary". Then use {T8} to include the mapped value in the download directory. They could specify the download path as C:\Photos\{T8}\{Y}-{m}-{D} so that pictures are downloaded to directories like:
C:\Photos\Bob\2006-11-04
C:\Photos\Mary\2006-11-04

Please see the [camera mapping preference settings](#) for more details.

Suggestions for one photographer with more than one camera

A professional photographer may have several different cameras and use them to cover an event such as a wedding. When they download the images they want to be able to identify which camera took which picture and also avoid duplicate filenames. There are a number of ways Downloader Pro can help:

1. Use the {T1} token to extract the camera model from the shooting data and use it to prefix the filename e.g. the cameras might be a Nikon D2X and a Nikon D200. The filename could be specified as "{T1}_{o}" ({T1} for the camera model and {o} for the original filename on the memory card) and this would give filenames like D2X_DSC_0001.JPG and D200_DSC_0001.JPG
2. Option 1 doesn't help if the cameras are the same model. If the cameras are Canon digital SLRs or recent Nikon digital SLRs the camera serial number could be used instead. e.g. if the cameras are both Canon EOS 30D's the filename could be specified as "{c}_{o}" ({c} extracts the camera's serial number from the shooting data) and this would give filenames like 0130100302_IMG_0001.JPG and 0230104671_IMG_0001.JPG.
3. Option 2 is OK, but it does result in long filenames which aren't very meaningful. An alternative is to use the camera mapping setting in preferences to map the camera model name and serial number to something more meaningful e.g. map "Canon EOS 30D serial # 0130100302" to "30D1" and "Canon EOS 30D serial # 0230104671" to "30D2". Then use {T8} to include the mapped value in the filename e.g. "{T8}_{o}" which would give filenames like 30D1_IMG_0001.JPG and 30D2_IMG_0001.JPG.

This technique can also be used with other cameras provided they allow you to specify a user comment in the camera which is added to each image. For example the user comments for two Nikon D200 cameras could be set to "(c) John Smith, camera #1" and "(c) John Smith, camera #2" and provided the comments are not the same different mappings for {T8} can be setup for each camera.

Please see the [camera mapping preference settings](#) for more details.

3.4 IPTC/XMP data

IPTC data is a method of storing textual information in images. It was developed for press photographers who need to attach information to images when they are submitting them electronically but it is useful for all photographers. It provides a standard way of storing information such as captions, keywords, location and captions. Because the information is stored in the image in a standard way this information can be accessed by other IPTC aware applications.

Downloader Pro can add IPTC data to the following types of images: JPEG, TIFF, DNG and raw files from most cameras.

Downloader Pro supports the current Adobe XMP format which was introduced in Photoshop 7. The IPTC/XMP data is either stored in the image file (e.g. for JPEGs and TIFFs) or uses an XMP sidecar file (e.g. for raw files).

Downloader Pro can also optionally store a subset of the IPTC data in the older IPTC IIM format (see [General Preferences](#))

Information about the IPTC standard for data stored in images files can be obtained from the IPTC's web site: <http://www.iptc.org>

Editing IPTC Data

You can edit the IPTC data by selecting "IPTC/XMP data..." from the edit menu or by typing Ctrl+C. Alternatively you can get Downloader Pro to display the IPTC/XMP data dialog every time it is run ([see General Preferences](#)). Several sets of IPTC data can be prepared in advance and saved to disk by entering the data and pressing the "Save to file..." button. The data can then be loaded by pressing the "Load from file..." button.

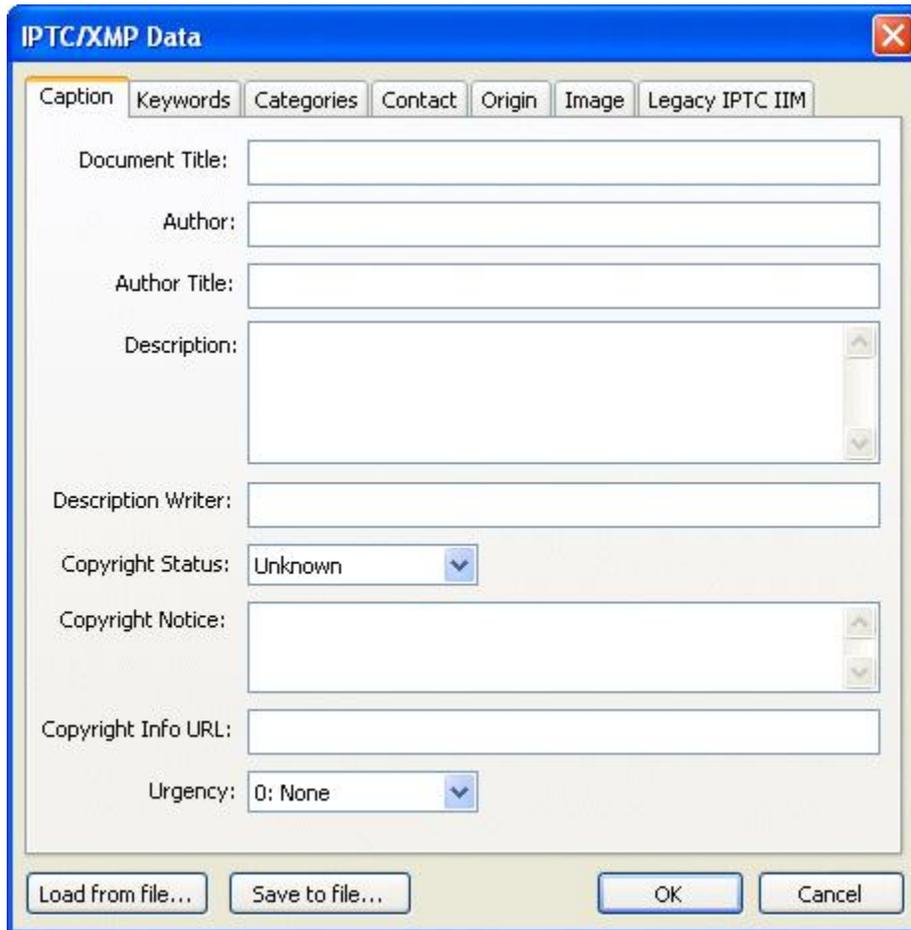
The various IPTC data fields can contain fixed text or use the tokens below to automatically insert data extracted from the image.

Token	Description
{1}	4 digit year "now" (when Downloader was run)
{2}	2 digit month "now" (when Downloader was run)
{3}	2digit day "now" (when Downloader was run)
{a}	Abbreviated weekday name e.g. Fri
{A}	Full weekday name e.g. Friday
{b}	Abbreviated month name e.g. Jan
{B}	Full month name e.g. January
{c}	Camera serial number (Canon digital SLRs and recent Nikon digital SLRs only)
{C}	Canon EOS 1D/1DS style serial number
{d}	Date in the form YYMMDD
{D}	Day of the month (01 to 31)
{F}	Name of downloaded file without file extension
{H}	Hour in 24-hour format (00-23)
{i}	ISO
{I}	Hour in 12-hour format (01-12)
{j}	Day number (001 to 366)
{J}	Job code
{l}	Long date/time representation for locale e.g. Saturday, April 13, 2002 09:27:32
{L}	Long date representation for locale e.g. e.g. Saturday, April 13, 2002
{m}	2 digit month number (01 to 12)
{M}	minutes
{o}	Source filename without extension e.g. IMG_0001
{O}	Owner's name (Canon cameras only)
{p}	AM/PM indicator in upper case
{plc}	am/pm indicator in lower case
{q}	Source folder number e.g. 123
{Q}	Source folder name e.g. 123CANON
{r}	Source image number e.g. 4567
{r1}	Last digit of source image number e.g. 7
{r2}	Last two digits of source image number e.g. 67

Note: All dates and times are taken from the date and time the picture was taken unless otherwise stated

The IPTC Data dialog is divided up into five different sections: Caption, Keywords, Categories, Contact, Origin and Image. If legacy IPTC IIM is selected in preferences a tab labeled "Legacy IPTC

IIM" will also be displayed. Click on the tabs along the top of the dialog to select the required section.

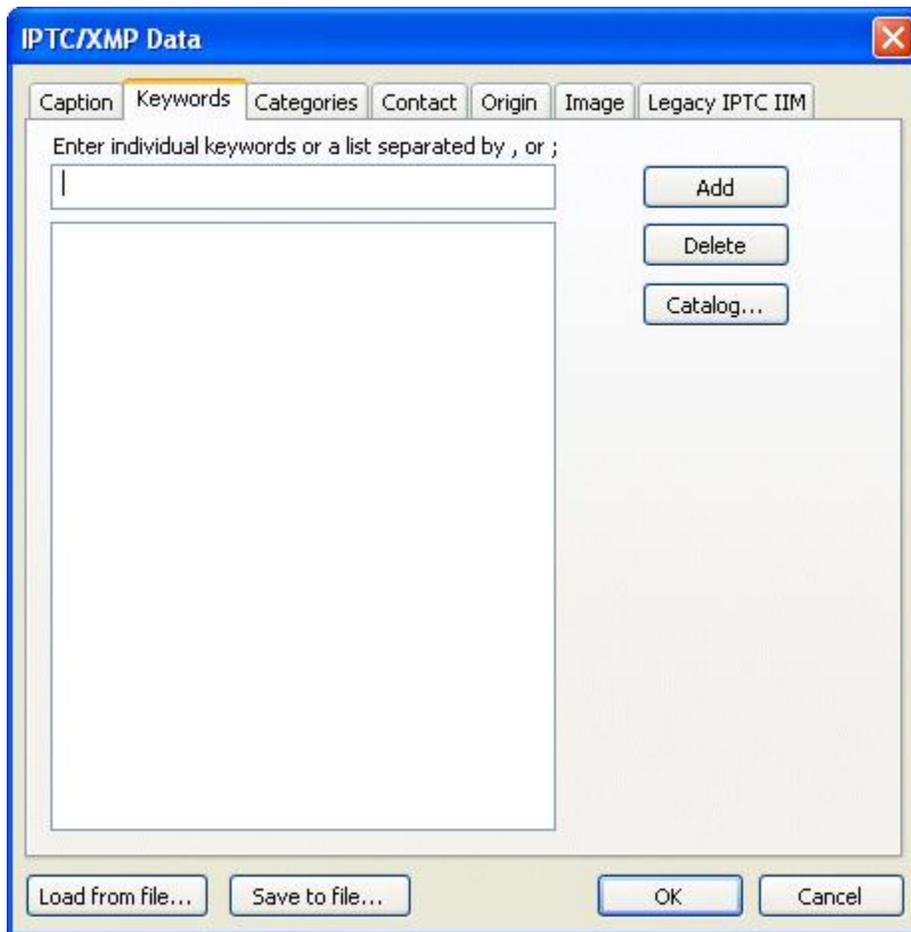


The screenshot shows a dialog box titled "IPTC/XMP Data" with a close button in the top right corner. The dialog has a tabbed interface with the following tabs: "Caption", "Keywords", "Categories", "Contact", "Origin", "Image", and "Legacy IPTC IIM". The "Caption" tab is currently selected. The form contains the following fields:

- Document Title: [Text box]
- Author: [Text box]
- Author Title: [Text box]
- Description: [Text area with scrollbars]
- Description Writer: [Text box]
- Copyright Status: [Dropdown menu showing "Unknown"]
- Copyright Notice: [Text area with scrollbars]
- Copyright Info URL: [Text box]
- Urgency: [Dropdown menu showing "0: None"]

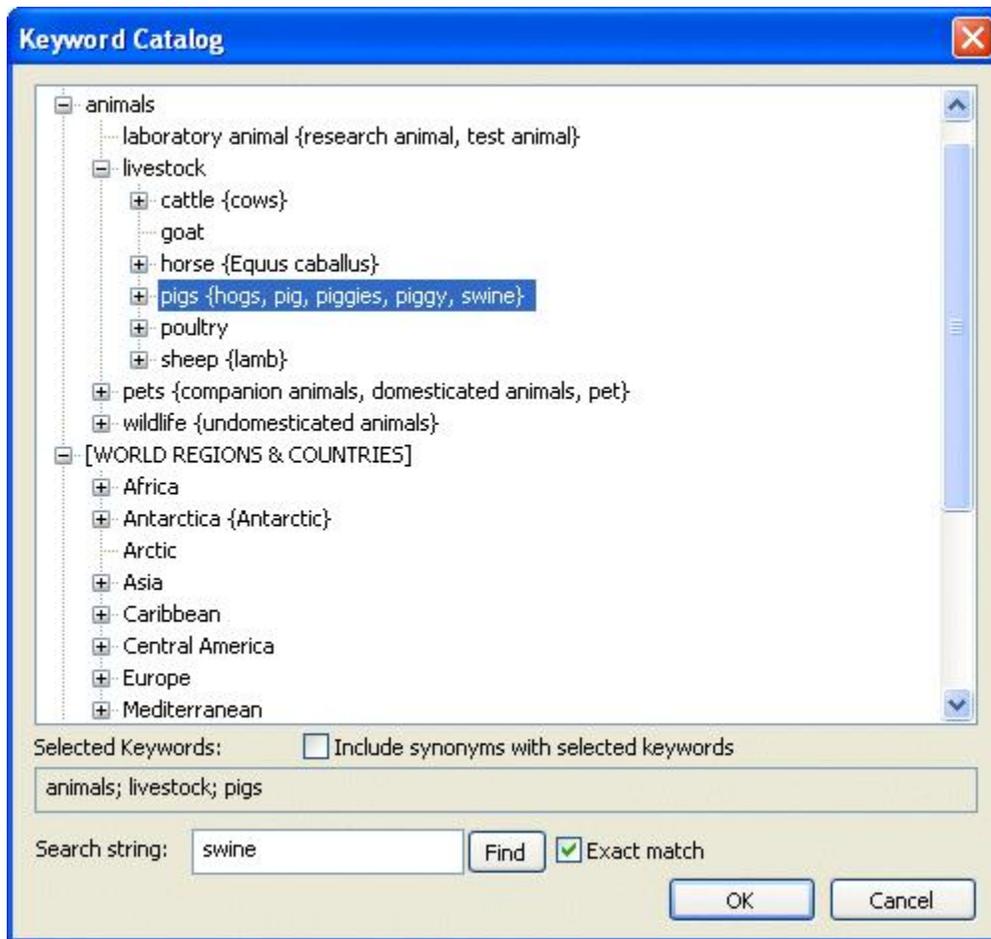
At the bottom of the dialog, there are four buttons: "Load from file...", "Save to file...", "OK", and "Cancel".

All the data fields under the Caption tab are free text entries for Copyright Status and Urgency are free text entries. The urgency is a number from 0, meaning "None", through 1 (meaning "High") to 8 (meaning "Low"). The default value is "0: None".



Click on the Keywords tab to display the keywords. The keywords are displayed in the order they were entered (as opposed to alphabetical order) and each keyword must be unique. To add a new keyword enter the keyword in the text edit area at the top and either press the Enter key or the Add button. Several keywords can be added in one go by entering a list separated by commas or semi-colons. To delete a keyword first select it from the list then press the Delete button.

Press the "Catalog..." button to display a list of pre-defined keywords in the dialog below:



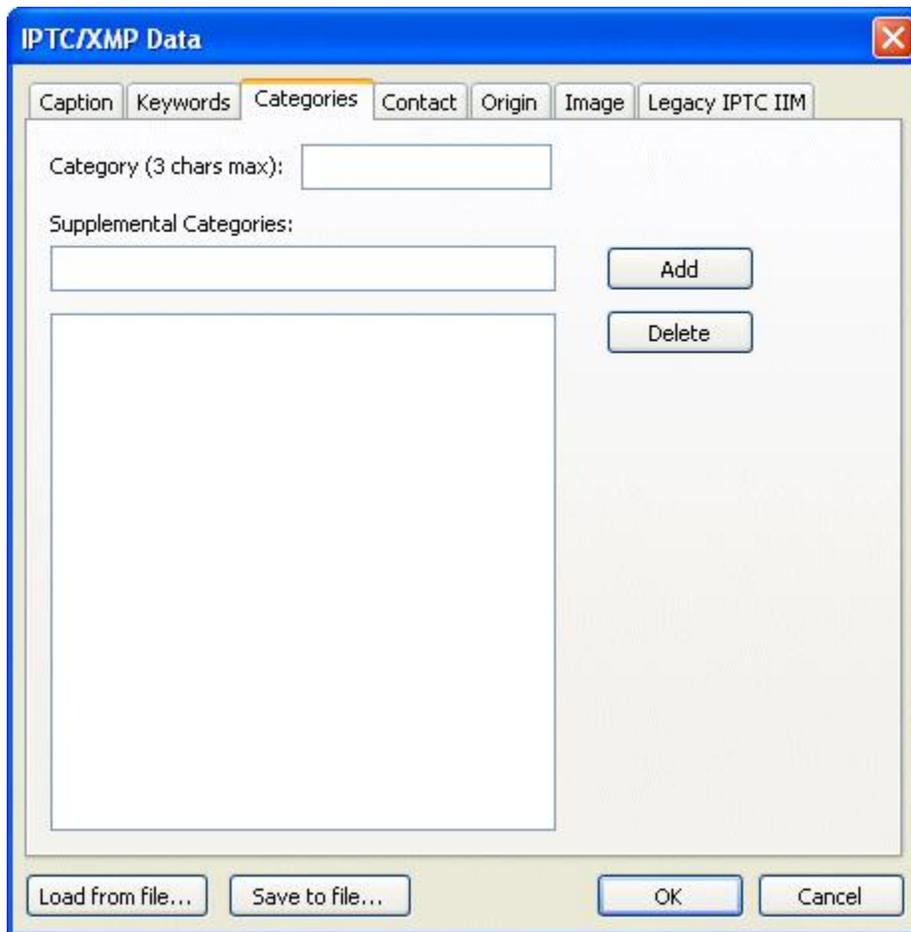
The keyword catalog is read from a simple tab delimited file called keywords.txt in the Downloader Pro installation folder (if keywords.txt can't be found Downloader Pro will try to load sample_keywords.txt instead). The sample_keywords.txt file included with Downloader Pro is a small extract from the controlled vocabulary created by David Riecks. Please visit <http://www.controlledvocabulary.com> for details of the considerable benefits of using a controlled vocabulary for keywords and to purchase the full keyword controlled vocabulary file.

Keywords can be selected by browsing the keyword tree or by entering a search string and pressing the Find button. Then press the OK button or double click on the item in the tree to copy the selected keywords to the IPTC/XMP keyword dialog.

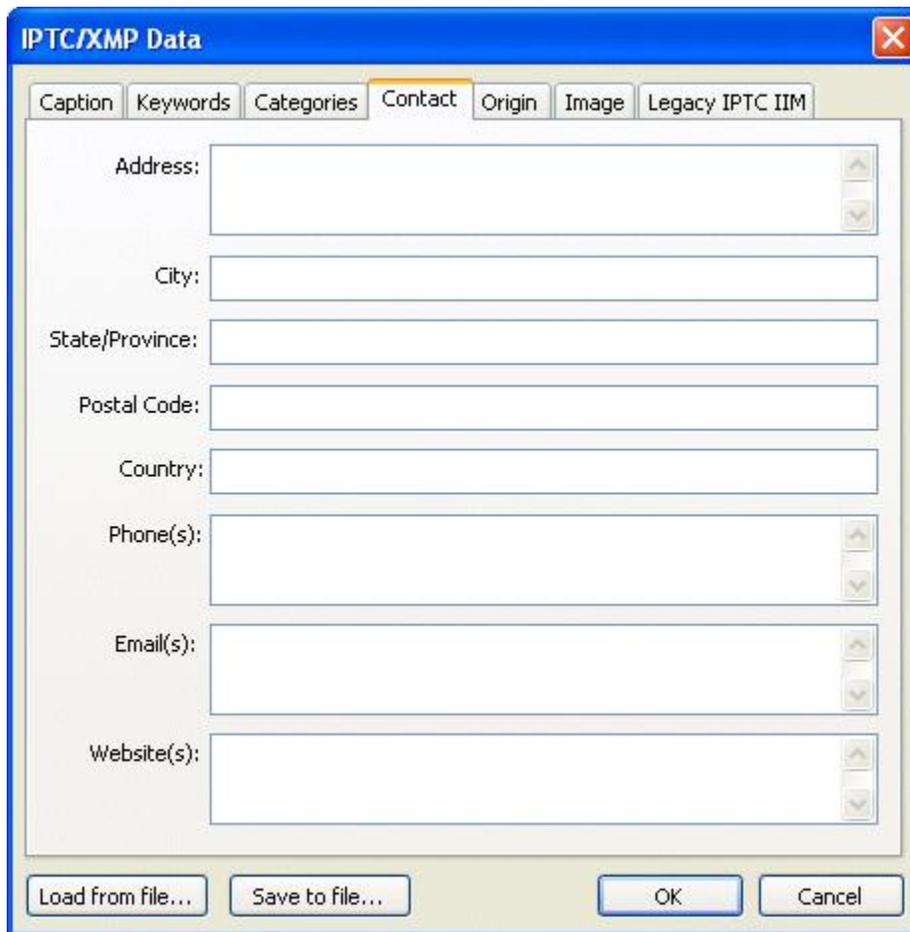
Synonyms are shown in braces/curly brackets after the keyword and are included when searching. Synonyms are only copied to the "Selected Keywords" with the main keyword when "Include synonyms with selected keywords" is selected.

In the screenshot above the user has searched for "swine" which is a synonym for "pigs" along with the synonyms "hogs", "pig", "piggies" and "piggy".

Items enclosed in square brackets are headings to help organize the keywords and are not copied to the "Selected Keywords" when you click on them.



Click on the Categories tab to display categories. The main category is a free text entry. The supplemental categories are displayed in the order they were entered (as opposed to alphabetical order) and each one must be unique. To add a new supplemental category enter it in the text edit area at the top and either press the Enter key or the Add button. To delete a supplemental category first select it from the list then press the Delete button.

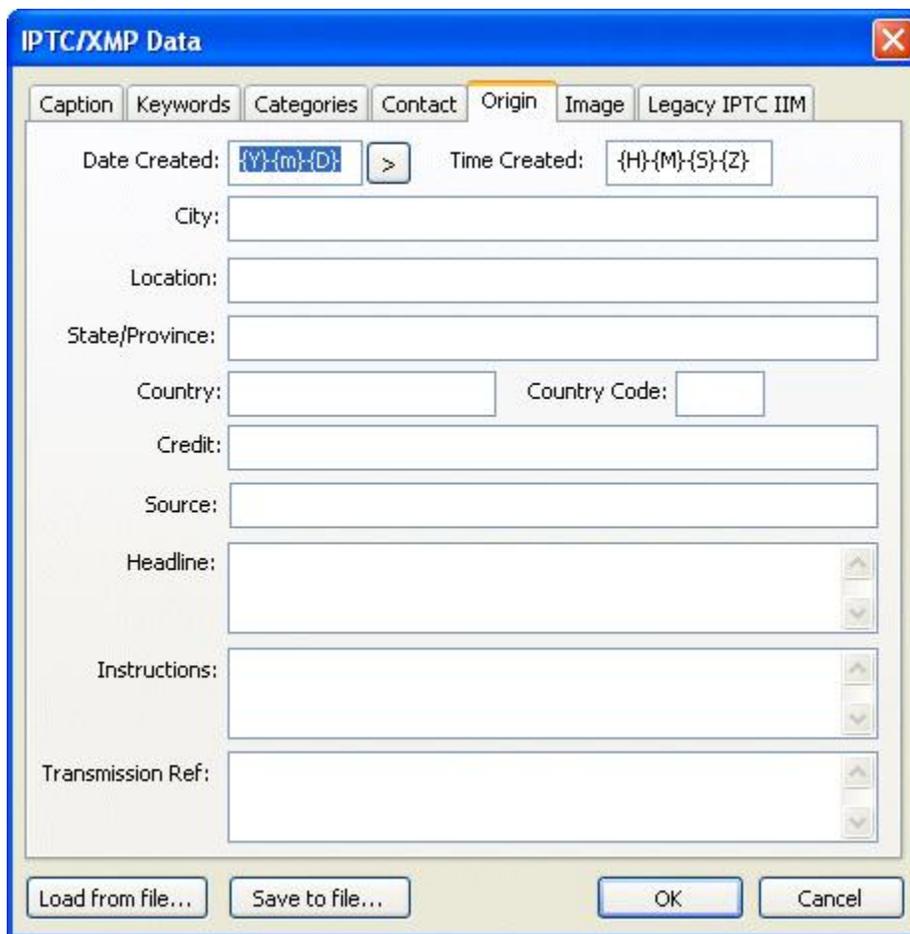


The image shows a screenshot of the 'IPTC/XMP Data' dialog box, specifically the 'Contact' tab. The dialog box has a blue title bar with a close button (X) in the top right corner. Below the title bar, there are several tabs: 'Caption', 'Keywords', 'Categories', 'Contact' (which is selected and highlighted), 'Origin', 'Image', and 'Legacy IPTC IIM'. The main area of the dialog contains several text input fields, each with a label and a small up/down arrow icon on the right side:

- Address:
- City:
- State/Province:
- Postal Code:
- Country:
- Phone(s):
- Email(s):
- Website(s):

At the bottom of the dialog, there are four buttons: 'Load from file...', 'Save to file...', 'OK', and 'Cancel'.

All the data fields under the Contact tab are free text entries.



The screenshot shows the 'IPTC/XMP Data' dialog box with the 'Origin' tab selected. The dialog has a blue title bar and a close button in the top right corner. Below the title bar are several tabs: 'Caption', 'Keywords', 'Categories', 'Contact', 'Origin' (highlighted), 'Image', and 'Legacy IPTC IIM'. The main area contains the following fields:

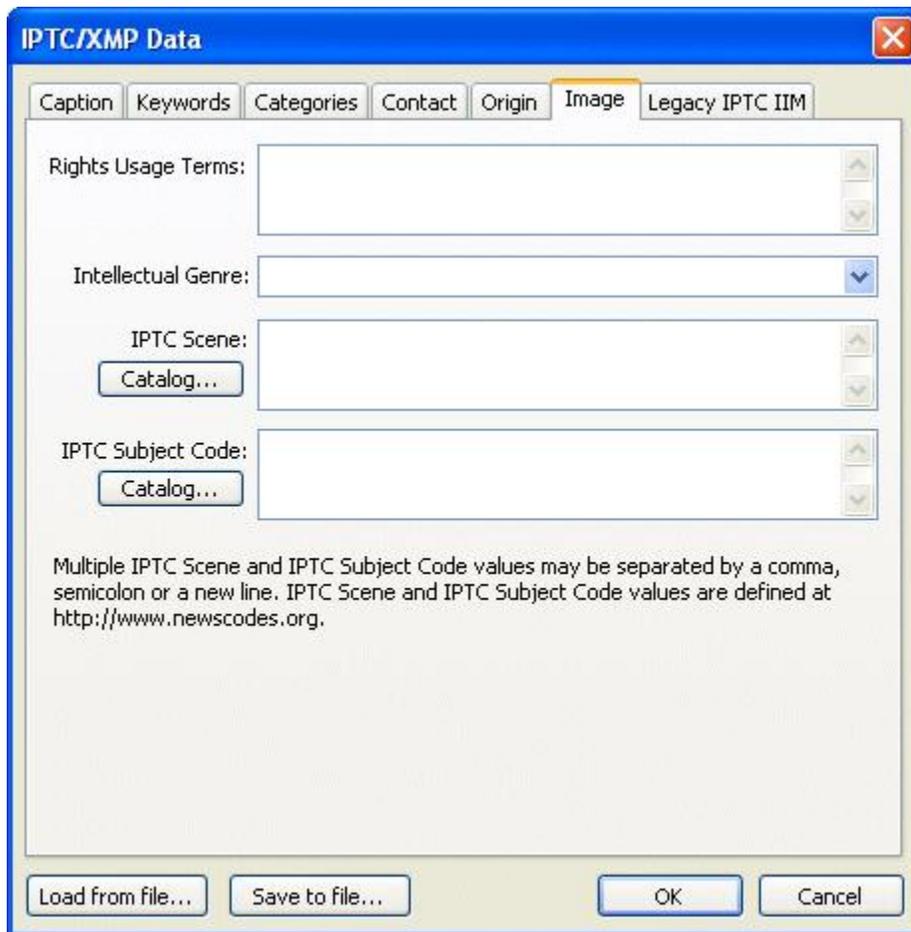
- Date Created:** A text box with a placeholder '{Y}{m}{D}' and a '>' button next to it.
- Time Created:** A text box with a placeholder '{H}{M}{S}{Z}'.
- City:** A text box.
- Location:** A text box.
- State/Province:** A text box.
- Country:** A text box.
- Country Code:** A text box.
- Credit:** A text box.
- Source:** A text box.
- Headline:** A text box with up and down arrow buttons on the right side.
- Instructions:** A text box with up and down arrow buttons on the right side.
- Transmission Ref:** A text box with up and down arrow buttons on the right side.

At the bottom of the dialog are four buttons: 'Load from file...', 'Save to file...', 'OK', and 'Cancel'.

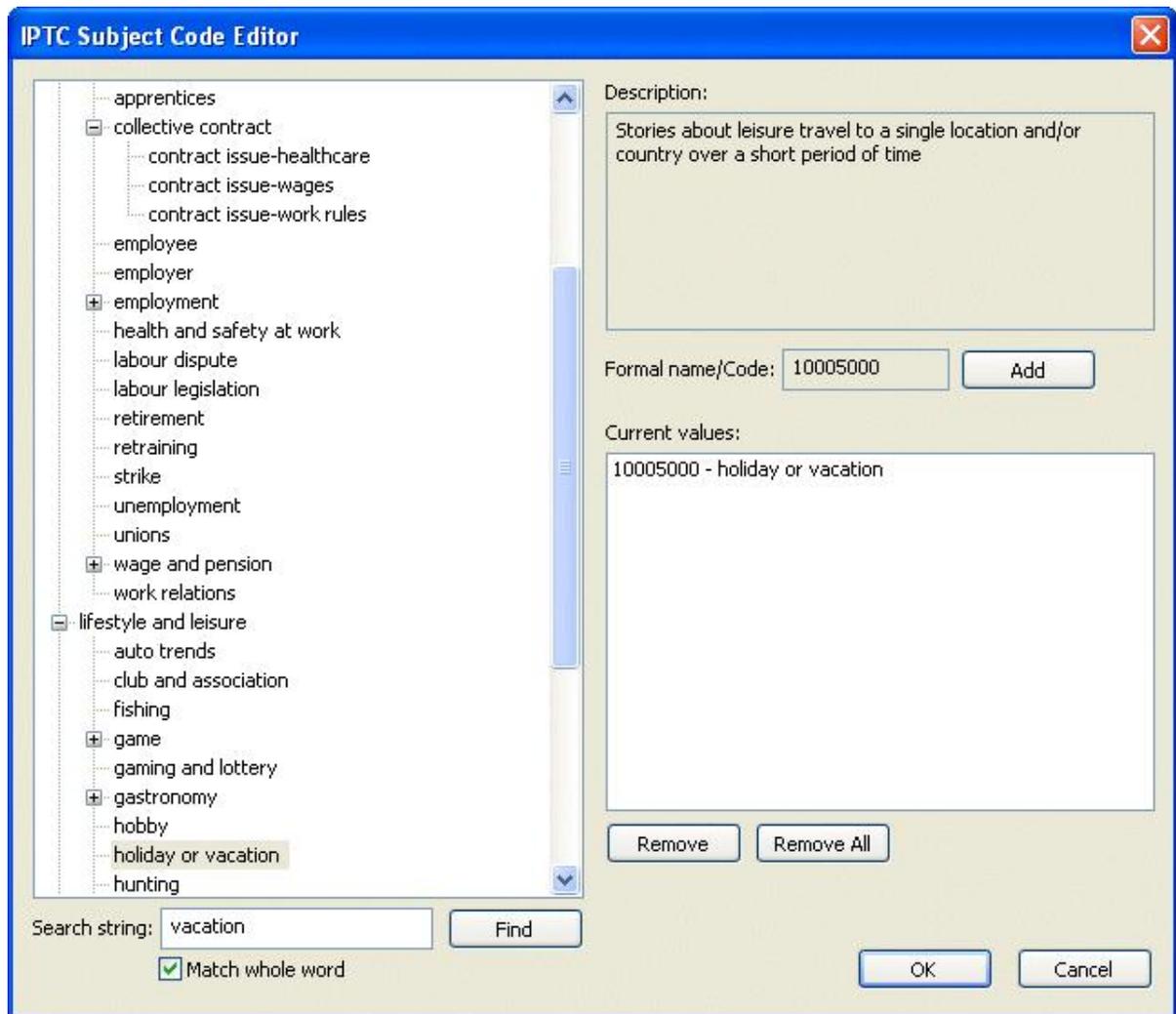
All the data fields under the Origin tab are free text entries except for the "Date Created" and "Time Created" fields. The date must contain a date in the form YYYYMMDD where YYYY is the year including century (e.g. 2007), MM is the month (e.g. 03 for March) and DD is the day (e.g. 26). An optional : or / character may also be used to separate the year, month and date. Press the ">" button after "Date Created" to display a menu to set the date/time to the EXIF shooting date, the file creation date, the current time, yesterday, two days ago or select any date using the date/time dialog (shown below).



Click on the ">" button after "Release Date" to set the release time to now, tomorrow, two days time, one weeks time, two weeks time or select any date using the date/time dialog.



The rights usage field is a free text entry field and is normally used to enter further information about the image and how it may be used. The intellectual genre field specifies the genre of the image using the list of genres defined by the IPTC. The IPTC scene and subject code fields should contain a list of numeric IPTC scene and subject code values classifying the image. These values use a controlled vocabulary defined by the IPTC to standardize their usage. Click on the "Catalog..." button to display the dialog below to select the codes:

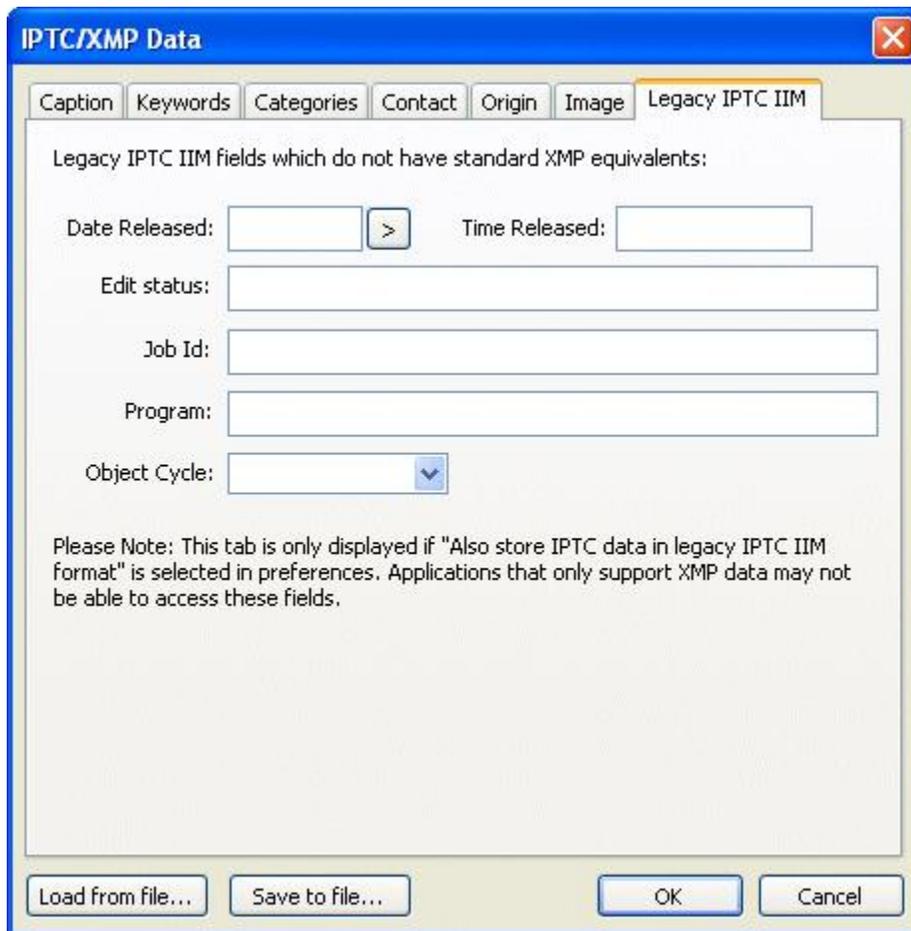


The IPTC subject code editor is shown above. On the left is a list of subject codes which can be expanded by clicking on the + and - buttons. When you click on an item in the list its formal name or code is displayed on the right together with a description of the item. The current values for the image are displayed on the right and this list can be added to by pressing the "Add" button or by selecting an item from the list on the left and pressing return. Items can be deleted by selecting the item from the list on the right and pressing the "Remove" button or the delete key. You can search for whole or partial words in the name or explanation by entering a search string in the bottom left and clicking on the "Find" button. The scene editor is very similar in appearance but only has a single level list of names on the left hand side.

The values displayed in this dialog (and in the intellectual genre list in the IPTC editor Image section above) are read from XML news code topicset files supplied by the IPTC. These are stored in the topicset folder where Downloader Pro is installed (usually C:\Program Files\BreezeSys\Downloader Pro \topicset). The files are named as follows: topicset.iptc-genre.xml, topicset.iptc-scene.xml and topicset.iptc-subjectcode.xml. At the time of writing the IPTC have translated topicset.iptc-genre.xml into Spanish (topicset.iptc-genre_es.xml) and topicset.iptc-subjectcode.xml into German (topicset.iptc-subjectcode_de.xml), Spanish (topicset.iptc-subjectcode_es.xml) and French (topicset.iptc-subjectcode_fr.xml). The translated files can be used in Downloader Pro's IPTC subject code editor by downloading the relevant file from <http://newscodes.org> and renaming it e.g. to use the French translation of the subject codes download topicset.iptc-subjectcode_fr.xml from

<http://newscodes.org>, rename it to topicset.iptc-subjectcode.xml and copy it into Downloader Pro's topicset folder.

The copyright of the XML topicset files belongs to the IPTC and are included with Downloader Pro with the IPTC's permission.



The "Legacy IPTC IIM" tab contains IPTC IIM fields which do not have direct IPTC XMP equivalents and is provided for backwards compatibility with older apps.

3.5 Sequence numbers and unique numbering

Downloader Pro has a number of tokens to help number images in different ways. If you are using a Nikon digital SLR or a Canon EOS 1D series camera and simply want to ensure each image has a unique filename consider using the shutter activation count token {r8}. For other cameras the "sequence number" or "time since the epoch" tokens can be used. The "uniqueness" tokens are useful if your naming scheme doesn't always produce unique filenames e.g. naming the files using the date and time and then shooting continuous bursts at more than one frame per second. The sequence number tokens are useful if you want to number images as they are downloaded e.g. numbering shots from a particular event or the number of shots taken this year.

Shutter Activation Count

Nikon digital SLRs and Canon EOS 1D series SLRs store the shutter activation count (i.e. the number of pictures taken since the camera was new) in the shooting data. This information can be accessed using the {r8} token and will guarantee unique filenames for a given camera body. e.g. Set download filename to:

{r8}	shutter activation count
{d}_{r8}	date image taken + shutter activation count
{t}_{r8}	time image taken + shutter activation count

{r85} and {r86} can also be used for the shutter activation count but pad the number with leading zeroes to give a five or six digit number respectively. e.g. a shutter activation count of 123 would give the following values

{r8}	123
{r85}	00123
{r86}	000123

Sequence Number

Downloader Pro can keep a count of downloaded images which can be used to number images as they are downloaded. The count is stored when Downloader Pro exits and continues from where it left off. The starting number can also be set in [preferences](#)

The sequence number is useful for numbering shots from a given event, particularly if the shots span more than one memory card. It can also be used to number images from a given point e.g. shots taken this year.

There are six tokens for sequence numbers:

- {seq#} - sequence number with no leading zeroes
- {seq#2} - 2-digit sequence number padded with leading zeroes e.g. 01, 02 etc.
- {seq#3} - 3-digit sequence number padded with leading zeroes e.g. 001, 002 etc.
- {seq#4} - 4-digit sequence number padded with leading zeroes e.g. 0001, 0002 etc.
- {seq#5} - 5-digit sequence number padded with leading zeroes e.g. 00001, 00002 etc.
- {seq#6} - 6-digit sequence number padded with leading zeroes e.g. 000001, 000002 etc.

Uniqueness

The uniqueness tokens are useful for ensuring the download filenames for a given download are unique. For example if images are named using the time they were taken to the nearest second, e.g. using the {t} token, the uniqueness tokens can be used to prevent duplicate names when shooting continuous bursts at more than one frame per second.

There are two groups of uniqueness tokens: those using lower case 'l' e.g. {l}, {l2}, {l3}, {l4} and those using upper case 'L' e.g. {L}, {L2}, {L3}, {L4}

The lower case 'l' tokens evaluate to an empty string if the filename is unique and start numbering from 1 for subsequent non-unique filenames. The upper case tokens on the other hand always evaluate to at least 1. {l2}, {l3} and {l4} work the same way as {l} but pad the number with leading zeroes to make 2-digit, 3-digit or 4-digit numbers respectively. Similarly {L2}, {L3} and {L4} work the same way as {L} but pad the number with leading zeroes to make 2-digit, 3-digit or 4-digit numbers respectively.

e.g. Suppose three JPEG photos were all taken at 18:30:54 at 5 frames per second:
Setting the download filename to {t} would give three duplicate filenames of 183054.jpg

Setting the download filename to {t}{l} would give the following filenames: 183054.jpg, 1830541.jpg, 1830542.jpg

Setting the download filename to {t}{l2} would give the following filenames: 183054.jpg, 18305401.jpg, 18305402.jpg

Setting the download filename to {t}_{l2} would give the following filenames: 183054.jpg, 183054_01.jpg, 183054_02.jpg

Setting the download filename to {t}{L} would give the following filenames: 1830541.jpg, 1830542.jpg, 1830543.jpg

Setting the download filename to {t}{L2} would give the following filenames: 18305401.jpg, 18305402.jpg, 18305403.jpg

Setting the download filename to {t}_{L2} would give the following filenames: 183054_01.jpg, 183054_02.jpg, 183054_03.jpg

Tip: Downloader Pro automatically removes trailing spaces and underscore characters from

filenames. This is useful when used with the `{l}` token as the underscore can be used for visual separation of the uniqueness number and is suppressed when not needed. e.g. if the download filename is set to `{t}_{l}` and `{l}` evaluates to an empty string the `_` will be removed automatically as in the example above.

Notes:

1. The uniqueness tokens only work within the context of the images in the current download. Downloader Pro doesn't examine images already in the destination folder before generating unique filenames
2. Some cameras (e.g. Nikon digital SLRs and recent Canon DSLRs) store the time the image was shot to the nearest 1/100th second in the shooting data. With these cameras the subsecond timing token, `{s}`, can be used instead of the uniqueness tokens when naming files using only the time the image was shot e.g. by setting the download filename to `{t}{s}`

Time Since the Epoch

The "time since the epoch" is used by many computer systems to count the number of seconds since midnight UTC on Jan 1, 1970. Downloader Pro provides two tokens to represent the time since the epoch: `{epoch}` and `{epoch36}`. `{epoch}` displays the number as a 10-digit number whereas `{epoch36}` provides a shorter string by representing the number of seconds in base 36 using the characters 0 to 9 and A to Z.

e.g. 14:30:44 on November 21, 2006 gives:

<code>{epoch}</code>	1164119444
<code>{epoch36}</code>	J934B8

The time since the epoch is an alternative to generate unique filenames for images from a given camera body.

e.g. Set the download filename to:

<code>{epoch}</code>	number of seconds since the epoch (10-digit number)
<code>{epoch36}</code>	number of seconds since the epoch in base 36 (6-character string)
<code>{epoch36}_{r}</code>	seconds since the epoch followed by the image number assigned by the camera
<code>{epoch}_{l}</code>	seconds since the epoch followed by uniqueness number if shooting continuous sequences

Note: The "time since the epoch" can only represent times from midnight UTC on Jan 1, 1970 to 03:14:07 UTC on Jan 19, 2038.

3.6 User profiles

Different sets of Downloader Pro settings can be saved as user profiles to cater for different download requirements e.g. a professional photographer may have a number of assignments with different download requirements such as filenaming or IPTC data and these could be saved in advance as different user profiles and then quickly recalled as required. Downloader Pro can also be setup to automatically prompt for which [user profile to use at startup](#).

The currently selected user profile is displayed in the window title bar in square brackets after "Downloader Pro" unless the default profile is selected.

Saving user profiles

To save the current settings as a new user profile click on the "File" menu and select "Save..." from the "User Profiles" section and the dialog below will be displayed:



Enter the name of the profile and optional description and press the OK button. All the current settings including the download path, filenames, camera mappings, IPTC settings and plug-in settings will be saved and the new profile name will be displayed in Downloader Pro's window title bar.

Please note:

1. User profile names must not contain \ characters
2. Any changes to settings since Downloader Pro was run will be saved under the new user profile and not the profile that was selected before saving the new profile

Loading user profiles

To load a previously saved user profile click on the "File" menu and select "Load..." from the "User Profiles" section and the dialog below will be displayed:



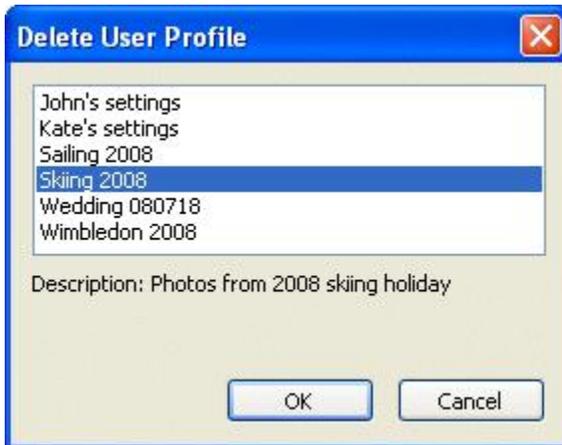
Click on the profile names from the list to display their descriptions and then either double-click on the item in the list or click on the OK button to load the user profile. The current settings are saved under the current user profile before loading the settings for the new profile.

Notes:

1. The special profile name {default} is reserved for the default user profile. When this profile is selected no profile name is displayed in Downloader Pro's window title bar.
2. The load user profile dialog can be displayed automatically at startup by selecting the "Prompt for user profile at startup" in [Downloader Pro's preferences](#).

Deleting user profiles

To load a user profile click on the "File" menu and select "Delete..." from the "User Profiles" section and the dialog below will be displayed:



Click on the profile names from the list to display their descriptions and then either double-click on the item in the list or click on the OK button to delete the user profile. A yes/no dialog will be displayed asking you to confirm that you want to delete the user profile.

Please note:

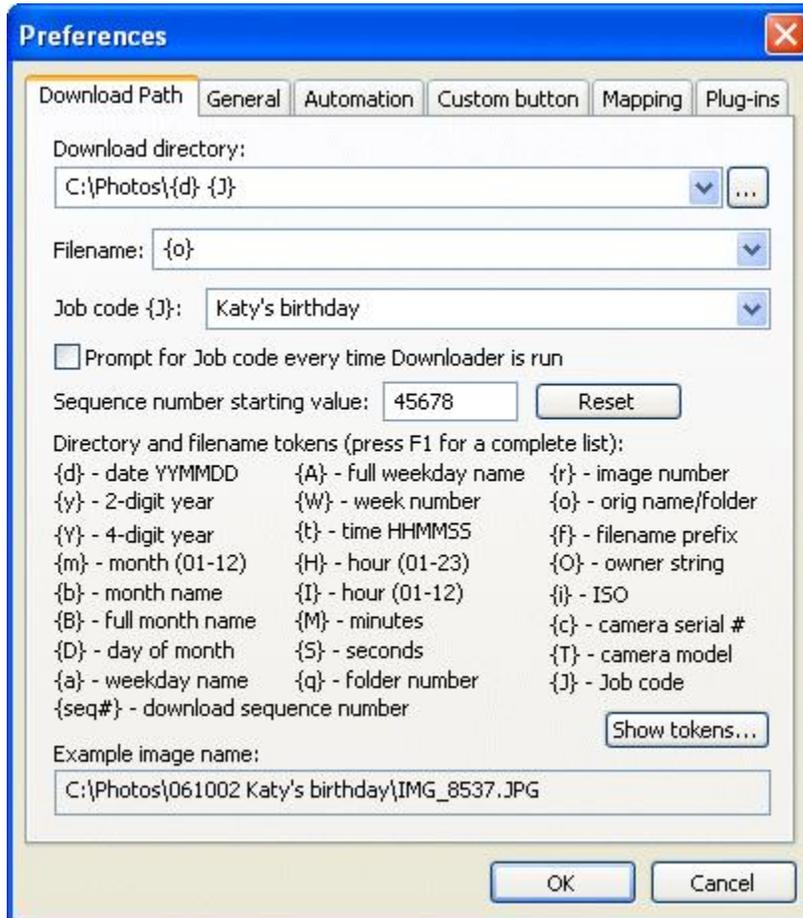
1. The currently user profile cannot be deleted. To delete the current profile please load a different profile first.
2. The default profile cannot be deleted

4 Preference settings

Click on the File menu and select Preferences to display the Preferences dialog to configure Downloader Pro.

Select "Export Downloader Pro settings..." from the File menu to save your settings to a Windows registry file. This file can be used to restore your settings at a later date or for copying your settings to another PC. To restore your settings first make sure no copies of Downloader Pro are running on your computer and then simply double click on the registry file in Windows Explorer. Windows will display a warning message saying something like "Are you sure you want to add the information in C:\DLPro.reg to the registry?". Click on the "Yes" button to load the settings.

4.1 Download path



The download directory is the base directory for where images are downloaded to the computer. Press on the "..." button to browse for a new directory. The actual directory where the files are downloaded can be modified using the various tokens listed on the dialog. The default setting is "C:\Photos\{d}" which will download the images to separate folders according to the date when the photo was taken.

A list of the last 12 settings used for the download directory and filename can be recalled by clicking on the dropdown arrow to the right of the text entry area.

Here are some alternatives you might find useful:

Download directory	Description	Example
C:\Photos\{T}\{d}	use the camera model and date the photo was taken	C:\Photos\10D\20030416
C:\Photos\{1}-{2}-{3}	use today's date i.e. the download date not the date the picture was taken	C:\Photos\10D\20030417
{u}\{d}	the date the picture was taken + "My Pictures" folder Note: {u} gives "My Documents" not "My Pictures" with some versions of Windows	C:\Documents and Settings\chris.TYPHOON\My Documents\My Pictures
C:\Photos\{Y}\{Y}-{m}-{D}	use the year, month and day the photo was taken (this is the one I use)	C:\Photos\2003\2003-04-16
C:\Photos\{d} {J}	use the job code and the date the image	C:\Photos\20030416 Katy's

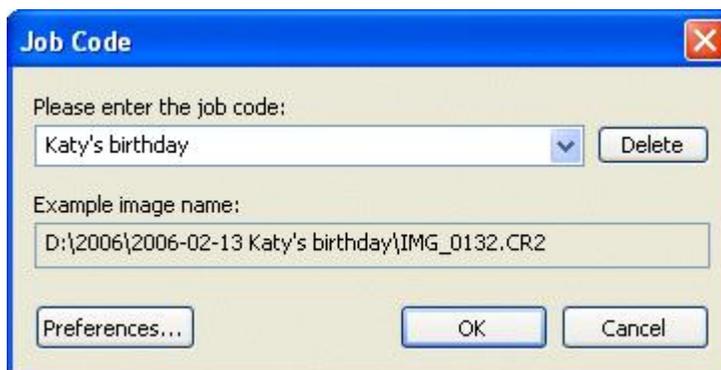
	was taken	birthday
C:\Photos\{O}\{d}	use the camera owner string (Canon cameras only) and date	C:\Photos\Chris Breeze\20030416
C:\Photos\{c}\{d}	use the camera serial number (Canon digital SLRs and recent Nikon digital SLRs only) and date	C:\Photos\0230104671\20030416

The filename can also be specified using these tokens. The default setting is {o} which keeps the original filename. Here are some alternatives you might find useful:

Filename	Description	Example
{d}_{o}	prefix the original filename with the date the photo was taken	030214_IMG_0123.JPG
{q}_{o}	prefix the original filename with the folder number on the memory card	678_IMG_0123.JPG
{q}-{r}_{f}	use Canon ZoomBrowser style naming where the image name is prefixed with the folder number	678-0123_IMG.JPG
{J}{d}_{o}	prefix the original filename with the job code and the date the photo was taken	Katy's birthday 20030416_IMG_0123.JPG
{d}_{t}_{r1}	date and time the image was taken plus the last digit of the image number to avoid duplicate file names when shooting at more than 1 frame per sec	031029_223015_7.JPG
{d}_{H}{M}_{r2}	date and time (hours and minutes) the image was taken plus the last two digits of the image number to avoid duplicate file names when shooting several pictures each minute	031029_2230_18.JPG
{i}_{o}	prefix the filename with the ISO setting. Useful when post processing images based on the ISO setting e.g. NeatImage	400_IMG_0123.JPG
{d}_{seq#6}	date plus six-digit sequence number	061121-001234

The example image name display at the bottom of the dialog shows how the download directory, filename and job code settings are combined.

The job code provides a useful way for organizing your photos as you download them. The job code can be included in the download directory or filename using {J}. When "Prompt for job code every time Downloader Pro is run" is selected you get the opportunity to edit the job code before downloading your images.



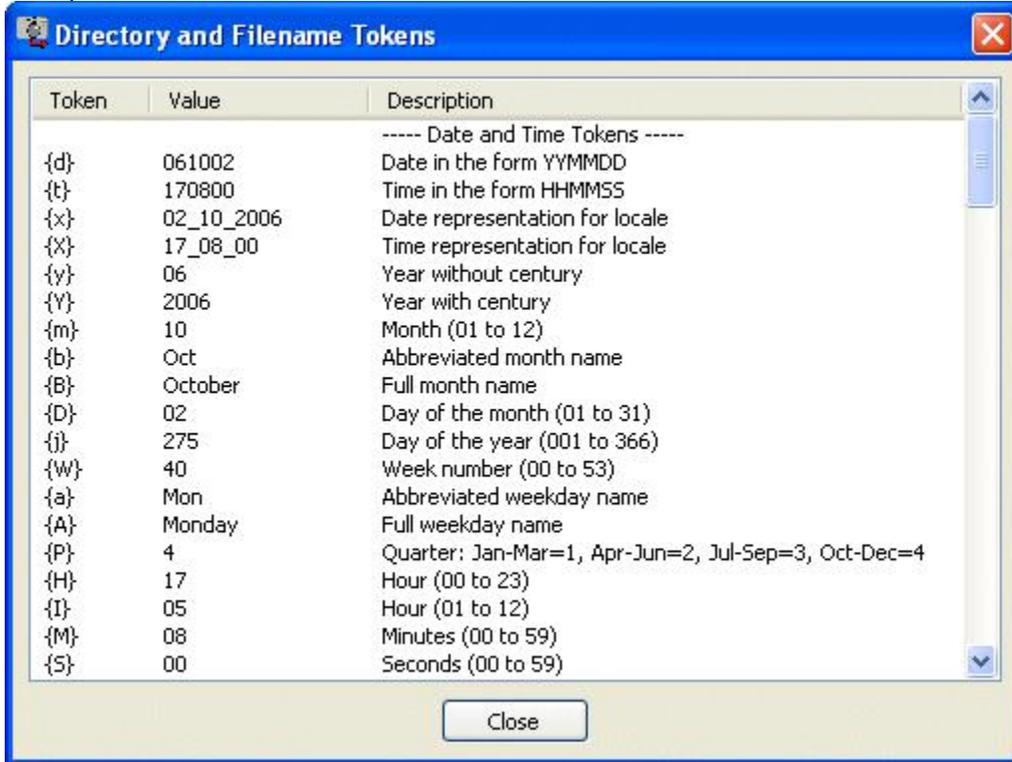
For example you might set the download directory to be "D:\{Y}\{Y}-{m}-{D} {J}" then enter a description of the event in the job code. Then when you take photos of your daughter's birthday party you could enter "Katy's birthday" for the job code and the files will automatically be stored in a directory with the date and description e.g. "D:\2006\2006-02-13 Katy's birthday\IMG_0001.JPG". The next set of photos you take might be on holiday and so you could enter "Skiing 2006" when you download

them.

Professional photographers can use the job code to enter a unique code for each job and add it to download directory and the name of each photo to make identification easier.

The shooting data can be used with the following image formats: JPEGs and TIFFs from all digital cameras, Canon raw files (CRW and TIF), Nikon NEF raw files, Fuji RAF raw files, Olympus ORF raw files, Pentax PEF raw files, Minolta MRW raw files, Sony raw files, Canon AVI movie files, Kodak DCR raw files, DNG raw files.

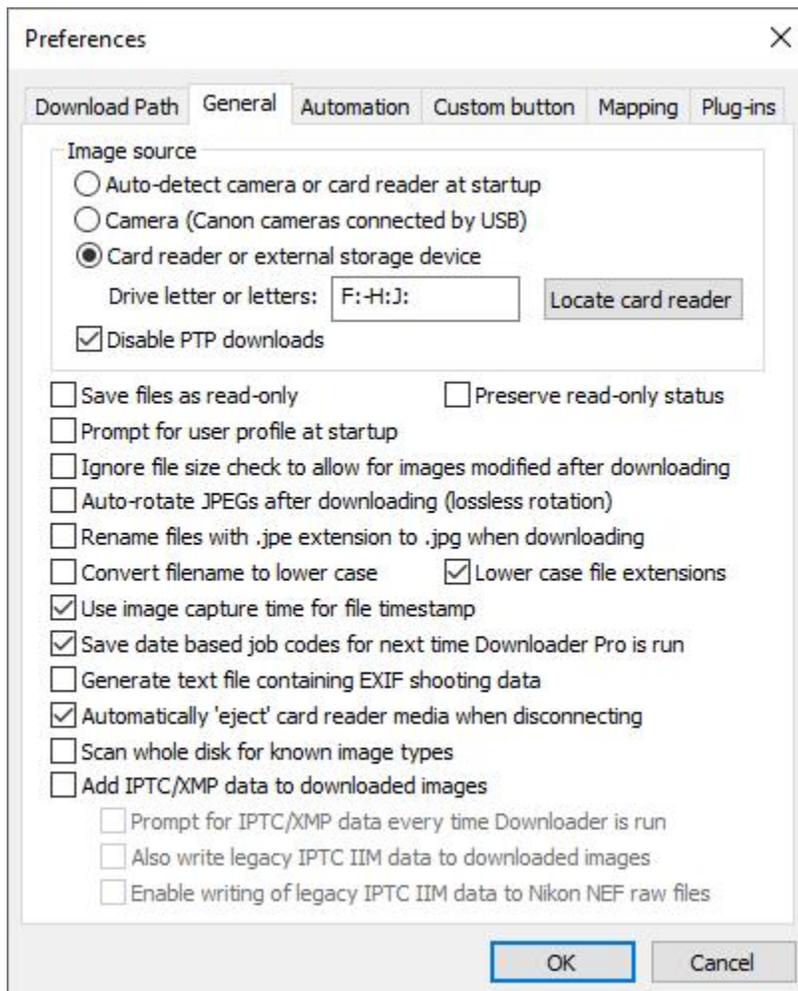
Press the "Show tokens..." button to display a list of the available tokens and their values for the example file:



If you are using a card reader the example file data is taken from the first image on the memory card.

The download sequence number tokens (e.g. {seq#}) keep a count of the number of images that have been downloaded using Downloader Pro. The sequence number starting value is saved when Downloader Pro exits and reloaded next time it is run. It can also be set to any required value in preferences.

4.2 General



The "Image Source" section lets you specify whether Downloader Pro should download from a camera or from a card reader.

To use a card reader you must also specify the drive letter associated with the card reader. If you are unsure of the drive letter to use, simply insert a memory card in your card reader and press the "Locate card reader" button and Downloader Pro will fill this in automatically. You can specify one drive letter, several drive letters or a range of drive letters. Use a hyphen to specify a range of drive letters e.g. G-I to specify drives G, H and I. Downloader Pro will scan the drive letters in the order defined until it finds a drive containing images.

Select the "Disable PTP downloads" when downloading using a card reader on Windows 10. This is because Windows 10 treats memory card readers as PTP devices which can cause problems because PTP does not support the downloading of raw images. "Disable PTP downloads" should not be selected if you wish to download images directly from phones or cameras from manufacturers other than Canon.

Downloader Pro can download directly from Canon cameras via the USB cable. If more than one camera is connected to your computer when Downloader Pro starts up it will display a dialog to allow you to choose which camera to connect to. You can run more than one copy of Downloader Pro at the same time and simultaneously download from several cameras.

If you select the auto-detect option Downloader Pro will attempt to connect to a camera first, and if this fails it will then try to access a card reader using the drive letters defined in the dialog.

Select "Prompt for user profile at startup" to have Downloader Pro display a dialog allowing you to select from the available user profiles to load at startup. Please see the section on [user profiles](#) for more information.

The "Save files as read-only" checkbox controls whether the read-only flag is set when files are downloaded. Setting files to read-only is a useful precaution against accidentally deleting files or overwriting them when editing.

When "Preserve read-only status" is selected read-only (or protected) images are set to read-only when they are downloaded. This option is useful if you wish to mark certain images in the camera by protecting them and then later select them [BreezeBrowse Pro](#) using the "select read-only images" option. Please note that this option is disabled if "Save files as read-only" is selected.

The "Ignore file size check" checkbox is useful if you download some files, rotate them in an editor and then download some more files. Lossless rotation of JPEG images in applications such as [BreezeBrowse Pro](#) changes the file size slightly and this causes Downloader Pro to display these images as "Size different". The "auto-rotate" JPEG option will also cause the file size to change.

The "Auto-rotate JPEG" option will automatically rotate JPEGs which rotated in the camera. An increasing number of cameras have a built-in sensor which detects whether the image was taken in landscape or portrait format and writes this information in the EXIF shooting data. Downloader Pro reads this information and can automatically rotate the JPEG so that it is displayed with the correct orientation in other apps. The "Ignore file size check" option is automatically selected when "Auto-rotate JPEG" is selected to prevent images being displayed as "Size Different" after downloading and rotating.

Note: Please don't use the "Auto-rotate JPEG" option if you are shooting raw+JPEG files and wish to view the images linked as raw+JPEG pairs in BreezeBrowser Pro as this may cause the images to be displayed incorrectly rotated.

Some digital cameras use .jpe as the file extension for JPEG images. This can be very inconvenient as most applications expect JPEGs to have a .jpg file extension. Use the "Rename files with .jpe extension" option to automatically rename these files to give them a .jpg file extension when they are downloaded.

The filenames of images on memory cards are always in upper case. Select "Convert filenames to lower case" if you prefer the downloaded files to use lower case letters. Select "Lower case file extensions" if you want just the file extension to be converted to lower case e.g. IMG_0123.JPG would be downloaded as IMG_0123.jpg.

By default Downloader Pro uses the file timestamp for date and time information but this can be different from the image capture time when taking long continuous sequences of images because some cameras set the file's timestamp to the time the image was written to the memory card not the time the image was taken. Select the "Use image capture time for file timestamp" to avoid this problem when downloading from a card reader or directly from a camera. When this option is selected Downloader Pro will read the image capture time from the image's shooting data and use it for the timestamp. This option can be slower than using the file's timestamp.

Date based job codes for the last 60 days can be saved when Downloader Pro exits so that they are available next time Downloader Pro is run by selecting "Save date based job codes for next time Downloader Pro is run".

Select "Generate text file containing EXIF shooting data" to create a text file containing a summary of the image's shooting data. The text file is given the same name as the source image but with a .txt extension e.g. IMG_0001.JPG will give IMG_0001.txt.

Some versions of Windows (Windows 2000 and Windows XP) can cause problems when using a card reader if the card isn't "ejected" before it is removed. This is because Windows doesn't write data back to the card reader immediately so it is possible to remove one memory card and insert another before the data from the first card has been saved. This can result in the directory from the first card overwriting that of the second card making the images on the second card inaccessible. To avoid this it is always a good idea to "eject" the card first before removing it. This doesn't actually physically eject the memory card from the card reader but it does prepare it for removal. You can get Downloader Pro to automatically "eject" the memory card from the card reader when it disconnects from it by checking this checkbox.

By default Downloader Pro only looks for images stored according to the DCF standard where the root directory is \DCIM and the images are stored in subdirectories with 8 character names starting with 3 digits (e.g. 123CANON). Some cameras don't follow this standard but you can still use Downloader Pro with them by setting "Scan whole disk for known image types".

Downloader Pro supports the current Adobe XMP format which was introduced in Photoshop 7. The IPTC/XMP data is either stored in the image file (e.g. for JPEGs and TIFFs) or uses an XMP sidecar file (e.g. for raw files). Downloader Pro can also optionally store a subset of the IPTC data in the older "legacy" IPTC IIM format.

Important note adding legacy IPTC IIM data to Nikon NEF raw files: Some raw converters are unable to convert raw files after IPTC IIM data has been added by Downloader Pro. Please check very carefully that your raw converter is able to convert Nikon NEF raw files after adding IPTC data **before** deleting the images from the memory card. IPTC data will not be added to Nikon NEF files unless "Enable writing of legacy IPTC IIM data to Nikon NEF raw files" is set.

4.3 Automation

You can setup Downloader Pro to automatically download files, delete the downloaded files, launch the custom application and exit when it is started up. To enable automation click on the File menu, select Preferences and click on the Automation tab. Then select the actions you wish to be automated.



When automation is enabled a dialog is displayed when Downloader Pro starts up asking you whether you want to continue. If you press the "Yes" button Downloader Pro will start the automatic sequence. The sequence will stop if you cancel it or an error occurs. You can suppress the prompt by unchecking the "Prompt before starting auto sequence" checkbox.

Note: Automatically deleting files from your CF card might sound risky, but remember that Downloader Pro will **never** delete files from the card unless they have been downloaded successfully.

4.4 Custom button



Select "Enable custom button" to add a custom button to Downloader. The custom button can be used to launch the application of your choice. If you have BreezeBrowser you can link directly to it by selecting "Link button to BreezeBrowser". Pressing the custom button after downloading your files will automatically run BreezeBrowser if it isn't already running and then display the folder containing the downloaded images.

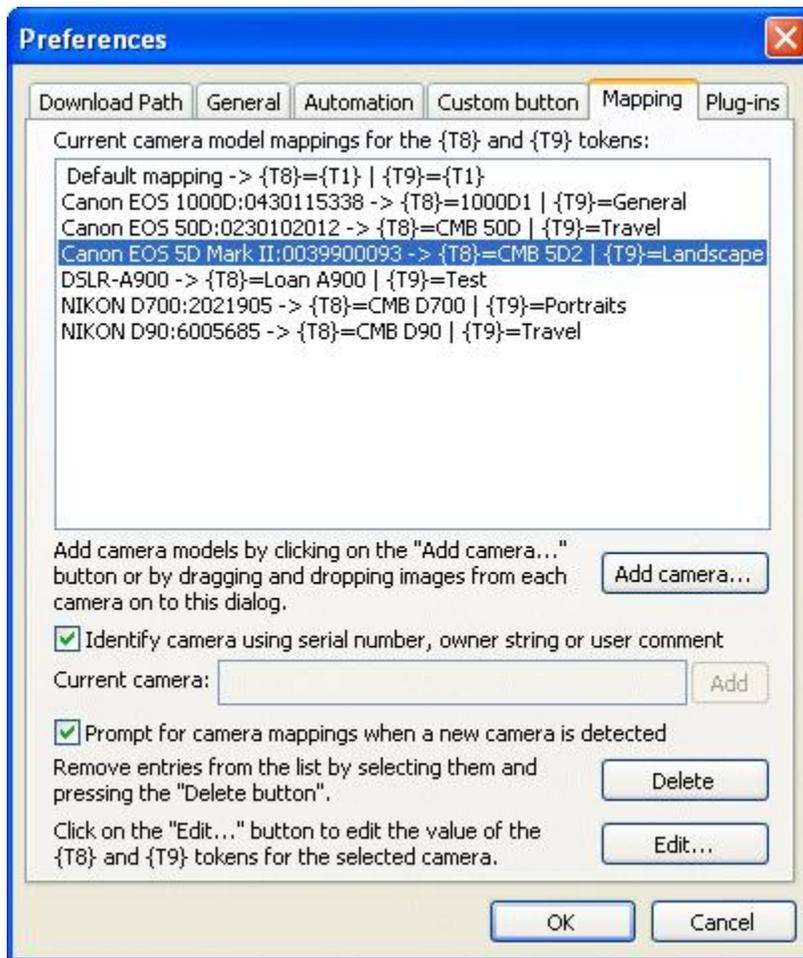
Select "Enable custom button" to define a custom button to launch an application of your choice. If you would like to run BreezeBrowser or [BreezeBrowser Pro](#) when the custom button is pressed simply select "Link button to BreezeBrowser Pro or BreezeBrowser". Note: this requires any version of Breezebrower Pro or BreezeBrowser v2.5 or later to be installed on your system. BreezeBrowser Pro can be downloaded from www.breezesys.com.

To launch a different application enter the button's caption and the command line to be executed when the button is pressed.

e.g. The following command line could be used to open the folder in Windows Explorer:
C:\Windows\explorer.exe %d

4.5 Camera name mapping

The camera name mapping preferences allow you to define a value to be used for the {T8} and {T9} tokens for different camera models. This is useful when using different cameras or when the camera name stored in the shooting data is awkward (e.g. Canon EOS DIGITAL REBEL) or when several photographers are shooting with the same type of camera.



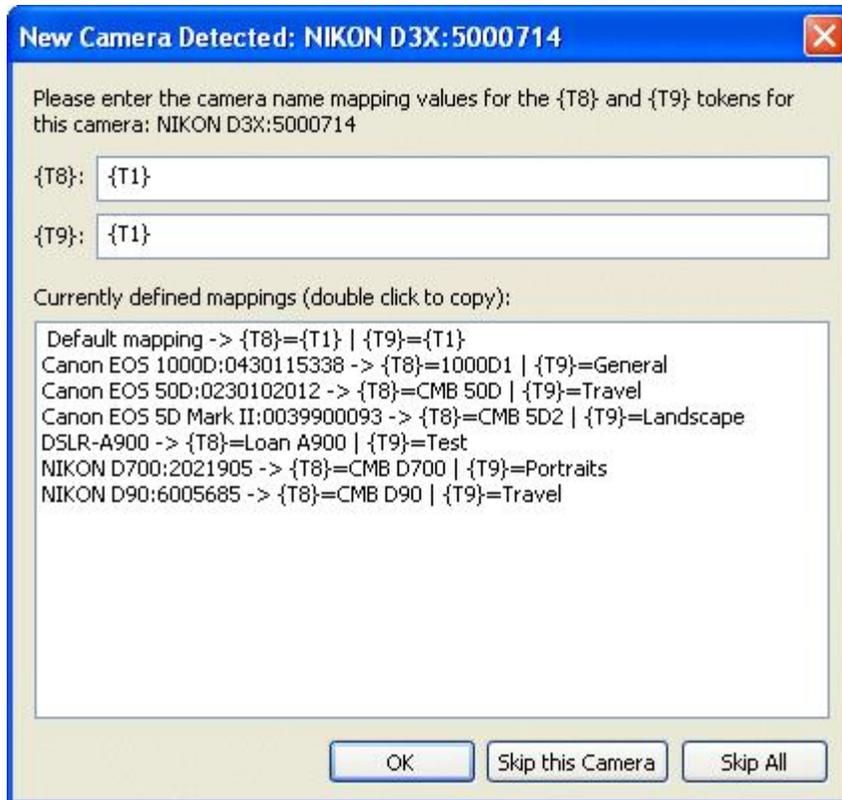
The list area at the top of the window shows the currently defined mappings e.g. the value of {T8} for images from the Fuji FinePix S3 Pro is mapped to "Fuji S3" and {T9} is mapped to "Fuji". {T8} and {T9} can then be used to specify the filename or download directory of downloaded images. For example the mappings shown in the screenshot could be used to sort images from different manufacturers' cameras into different folders using {T9} (Canon, Fuji, Olympus, Nikon etc.) and the values for {T8} could be used to prefix the filenames with the camera model.

To add a camera to the list either drag and drop an image on the dialog window using Windows Explorer or click on the "Add camera..." button and select an image. To remove a camera from the list first select it by clicking on its entry in the list then click on the "Delete" button. You can also add the current camera when using a card reader by pressing the "Add" button.

Select the "Identify camera using serial number, owner string or user comment" checkbox if you have more than one camera of the same type and wish to identify them separately. When this option is selected the camera serial number (Canon EOS digital SLRs and recent Nikon digital SLRs), owner string (other Canon cameras) or user comment (settable in some other cameras e.g. Nikon D200) is appended to the camera model name to identify individual cameras. For example, in the screenshot above mappings have been defined for two Canon EOS 1D Mark II cameras: one with serial number 0000200192 which sets {T8} to "1D2_1" and the other with serial number 0000225600 which sets {T8} to "1D2_2".

To edit the values of the {T8} and {T9} tokens for a given camera model either double-click on the item in the list or select it and then press the "Edit..." button. The values can be set to any valid Windows filename character. It may also contain another token e.g. {d} for the date.

Select the "Prompt for camera mappings when a new camera is detected" checkbox to have Downloader Pro prompt for the values to use for {T8} and {T9} when a new camera is detected. When this happens the dialog below is displayed:

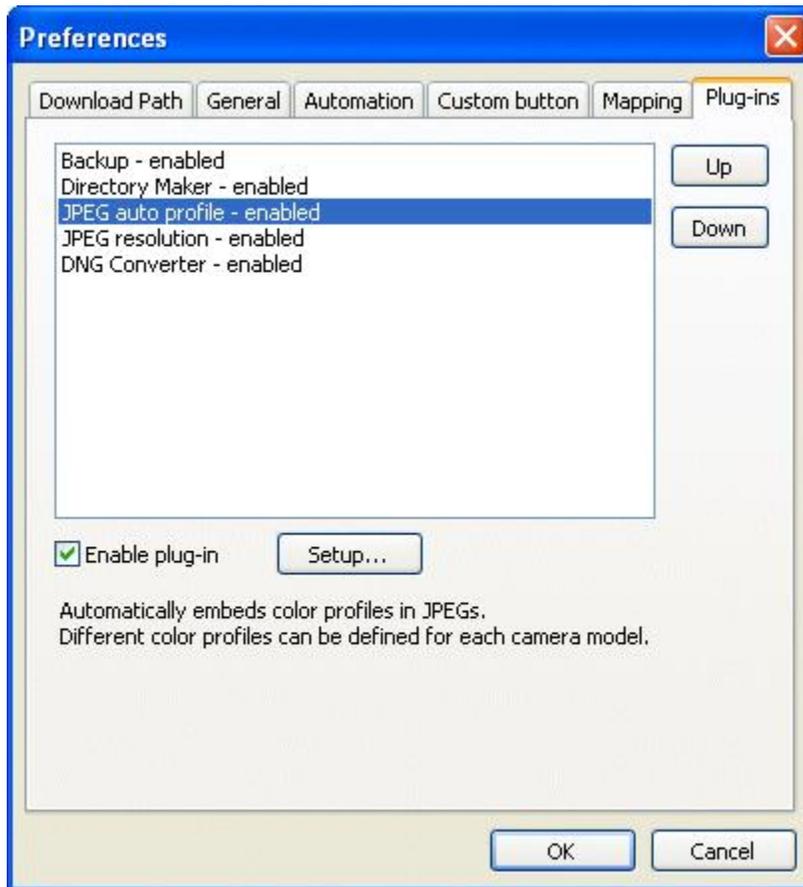


Enter values for {T8} and {T9} and press "OK" to mappings for the new camera. Press "Skip this Camera" if you do not wish to enter values for this camera (you won't be prompted again to enter values for this camera until next time Downloader Pro is run) or press "Skip All" if you do not want to be prompted for any more cameras this session.

Please note: You will only be prompted to enter values for new cameras if either the {T8} or the {T9} token is used to specify the download filename or directory.

Please see the section on [Making the most of Downloader Pro](#) for more details of how to use camera name mappings.

4.6 Plug-ins



Plug-ins are extensions to Downloader Pro which are run on images after they are downloaded. Please see the [Plug-ins page](#) for details of the plug-ins that come with Downloader Pro. Click on a plug-in in the list to select it and display a short description of its function at the bottom of the dialog.

Plug-ins can be enabled or disabled by checking and unchecking the "Enable plug-in" checkbox. Press the "Setup..." button to configure the plug-in.

You can change the order in which plug-ins are run by selecting a plug-in from the list and pressing the Up or Down buttons.

Note: The order in which the JPEG auto profile and JPEG resolution plug-ins are run doesn't matter.

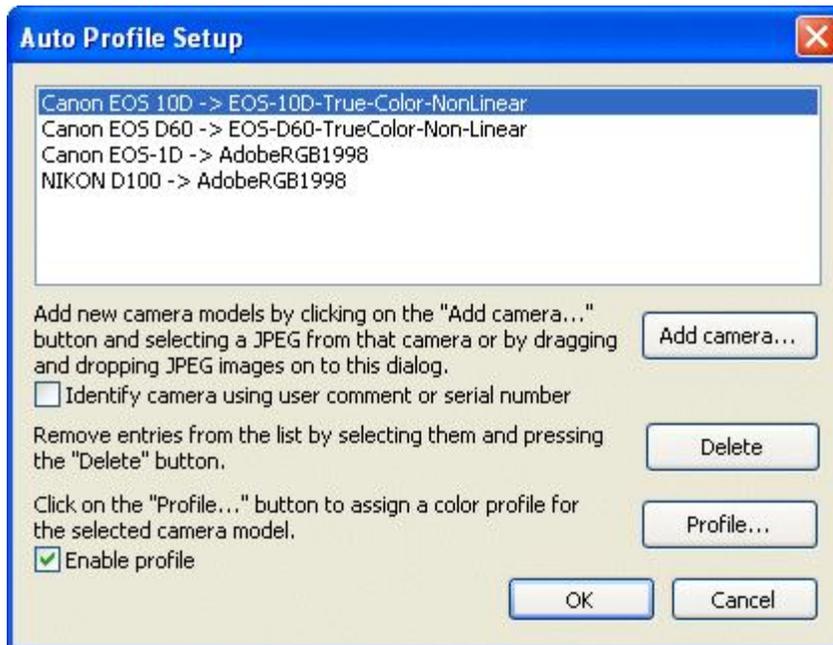
5 Plug-ins

Plug-ins are a way of extending Downloader Pro's functionality. They can be run on each image after it has been downloaded. Plug-ins can be enabled and disabled and configured from the [Plug-ins Preferences dialog](#). Downloader Pro comes with three plug-ins: one to automatically tag JPEGs with color profiles, one to adjust the resolution of JPEGs and one to automatically create empty directories to support your workflow.

A simple SDK is available on the [Downloader Pro support page](#) of the Breeze Systems website. This can be used to write your own plug-ins in C++.

5.1 JPEG auto profile

The JPEG auto profile plug-in allows you to automatically embed (or tag) a JPEG image with a color profile as it is downloaded. This saves time and possible confusion over color spaces when images are edited in color space aware applications such as Photoshop. You can specify different color profiles to use for different camera models using the setup screen below:



To add a new camera model to the list you can either drag a JPEG from that camera and drop it on the setup dialog or press the "Add camera..." button and use the standard Windows file open dialog to locate an example JPEG. Then click on the "Profile..." button to locate the color profile to be embedded in JPEGs from the selected camera model.

Select "Identify camera using user comment or serial number" if you have more than one camera of the same model and wish to assign different profiles to each. Normally this option will be left unchecked, but it is useful if you shoot using different color spaces with different cameras or have created individual color profiles for each camera.

5.2 JPEG resolution

JPEGs from digital cameras usually contain EXIF data which specifies the resolution of the image in DPI. Applications such as Photoshop and Photoshop Elements use the DPI value to calculate the print size of images (size in inches = size in pixels / DPI). The problem is that cameras often set the DPI to an unsuitable value. The JPEG resolution plug-in can be used to automatically change the DPI value to a user-defined DPI or dots/cm value. The plug-in will modify the EXIF XResolution, YResolution and ResolutionUnits values and add a JFIF header containing the new resolution value.



To setup the plug-in simply select the resolution units from the drop down list (DPI or dots/cm) and enter the required resolution value.

5.3 Directory maker

This plug-in is designed to help create a directory structure to support your workflow. As images are downloaded the plug-in creates empty directories relative to the download directory. For example suppose images are downloaded to the directory D:\Photos and you wish to create a directory for images which require more work called "working", a directory for finished images called "edited" and a directory for images prepared for web pages called "web". You can do this using the directory maker plug-in as shown below:



Alternatively you may prefer to download your images to a directory named "originals" and have the additional directories at the same level. This can be done by prefixing the directory names with "..\" (".." is a way of specifying the parent directory).

e.g. Files are downloaded to the a new download directory for each day by specifying

"D:\Photos\{Y}-{m}-{D}\originals" in the [Download Path preferences](#).

In the Directory maker plug-in setup page the following directories might be specified:

1. ..\edited
2. ..\web
3. ..\working

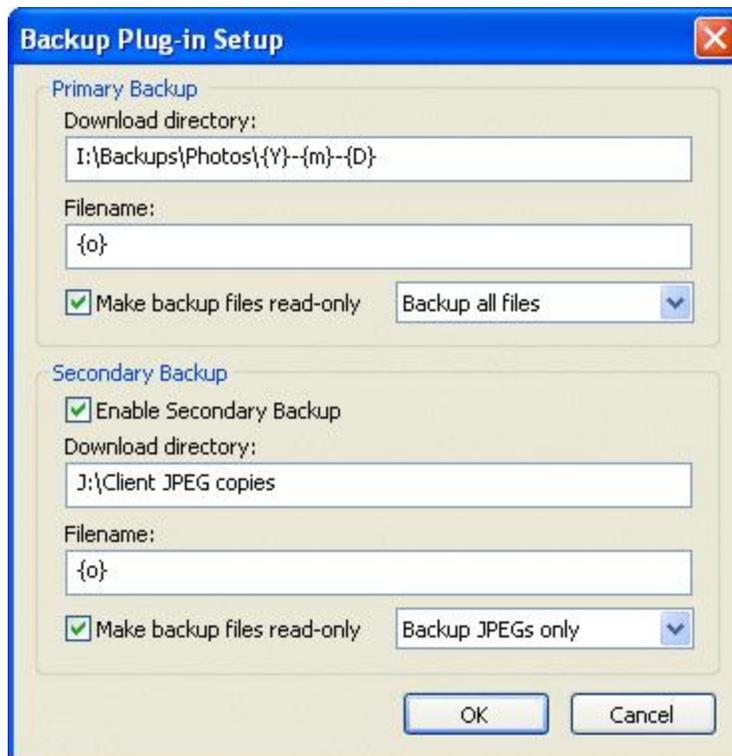
This would result in the following directory structure after downloading images on April 21, 2004:



The images would be downloaded to D:\Photos\2004-04-21\originals and the empty directories edited, web and working would be created ready for processing the images.

5.4 Backup

This plug-in automatically creates up to two backup copies of your images as they are downloaded. You can use exactly the same tokens to specify the download directory and filename as for the main download (see [Preferences](#)). Select "make backup files read-only" if you wish to make the backup files read-only and less likely to be accidentally overwritten or deleted.



Both the primary and secondary backups have the option to backup all files, JPEGs only or non-JPEGs only. This is useful if you are shooting raw+JPEGs and wish to copy JPEG proofs to one location for your client and the raw files to another location for backup purposes.

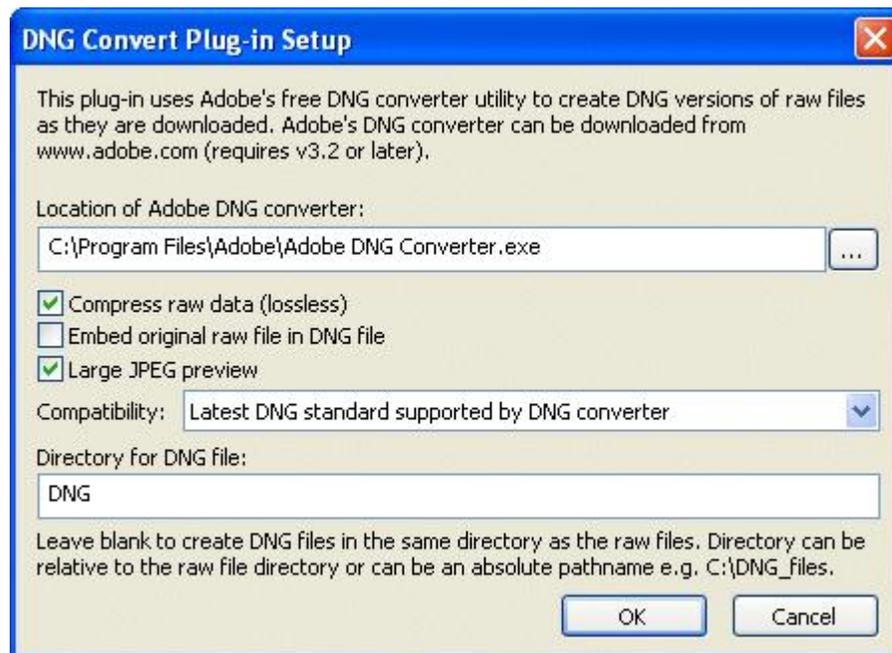
Please ensure you have plenty of spare space on the drive you are using for backups when using this plug-in.

Please note: The drive used for backups must be a normal read/write drive such as a hard disk. The plug-in can't be used to backup files to a CD or DVD writer.

5.5 DNG Convert

This plug-in automatically creates a DNG version of raw image files as they are downloaded. It uses Adobe's free DNG converter (which must be downloaded separately) to convert the raw files to DNG format. Please see Adobe's website for more information about the DNG file format:

<http://www.adobe.com/dng>



In order to use this plug-in you must first download and install Adobe's DNG Converter on your PC. This is free and can be downloaded from <http://www.adobe.com/dng>. This is regularly updated by Adobe to support new cameras as they become available.

Next enter the location of the DNG converter by pressing the "..." browse button and select the required options.

The compatibility dropdown list can be used to select older versions of the DNG standard for compatibility with older versions of Adobe Camera Raw, Photoshop and Lightroom. This is useful if you have an older version of Photoshop or Lightroom which does not support raw conversion for a new camera e.g. if you have Photoshop CS and wish to convert raw files from a Canon EOS 5D Mark II or a Nikon D700 the compatibility should be set to "Camera Raw 2.4 and later (Photoshop CS/Lightroom 1.0)". This will tell the DNG converter to generate DNG files which are compatible with Photoshop CS and Lightroom 1.0.

The compatibility setting only needs to be changed from its default value of "Latest DNG standard supported by DNG converter" if you need to generate DNG files which are compatible with older versions of Photoshop, Lightroom or other software.

By default the DNG file is stored in the same directory as the raw file. You can specify a different directory for the DNG files by entering the path in the "Directory for DNG file:" text box. This can be specified as a relative path as in the screenshot above or an absolute path such as "C:\DNG files".

Examples of different DNG directory paths:

Directory	Description
DNG	Creates DNG files in a sub directory called DNG relative to the raw files. e.g. raw file path: C:\Photos\2005-11-12\IMG_1234.CR2 DNG file path: C:\Photos\2005-11-12\DNG\IMG_1234.dng
C:\DNG files	Creates DNG files in the directory "C:\DNG files"
D:\DNG\{Y}\{Y}-{m}-{D}	Creates DNG files in a directory using the date the picture was taken e.g. the DNG file from a raw file taken on Nov 2, 2005 would be stored in D:\Photos\2005\2005-11-05

Please note that it takes several seconds for the DNG converter to convert each file and so it will take longer to download files when this plug-in is used.

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6 Trouble Shooting

6.1 Error Messages

Sometimes Downloader Pro is unable to download all your files and may display a message like "25 files to download of which 3 are problem files" in the status line at the bottom of the main window. You can find out more information about the status of each file by looking at the Status column in the main window. Normally this shows either "New file" indicating that the file has not been downloaded yet or "Downloaded" indicating that it has been downloaded successfully.

You can display more information about the status of each file by right clicking on it and selecting "Download Status" from the popup menu.

Some possible reasons for different status types and what action you can take to avoid problems are listed below:

"Size different"

This usually indicates that a file of the same name has already been downloaded to your PC and Downloader Pro can't download the file on the memory card without overwriting the one on your PC.

The usual reason for this is your camera is set to reset the file numbering each time an empty memory card is used. If your camera is set this way the first set of pictures you take will be numbered starting from IMG_0001.JPG. If you download these images, erase your memory card and take some more pictures these will also be numbered starting from IMG_0001.JPG. When you try to download the second set of images they will have the same filenames as the first set of images and Downloader Pro will not be able to download them.

The easiest way to avoid this problem is to turn off the file number reset option in you camera so that it uses continuous numbering. The menu settings will vary from camera model to camera model but will look something like this:

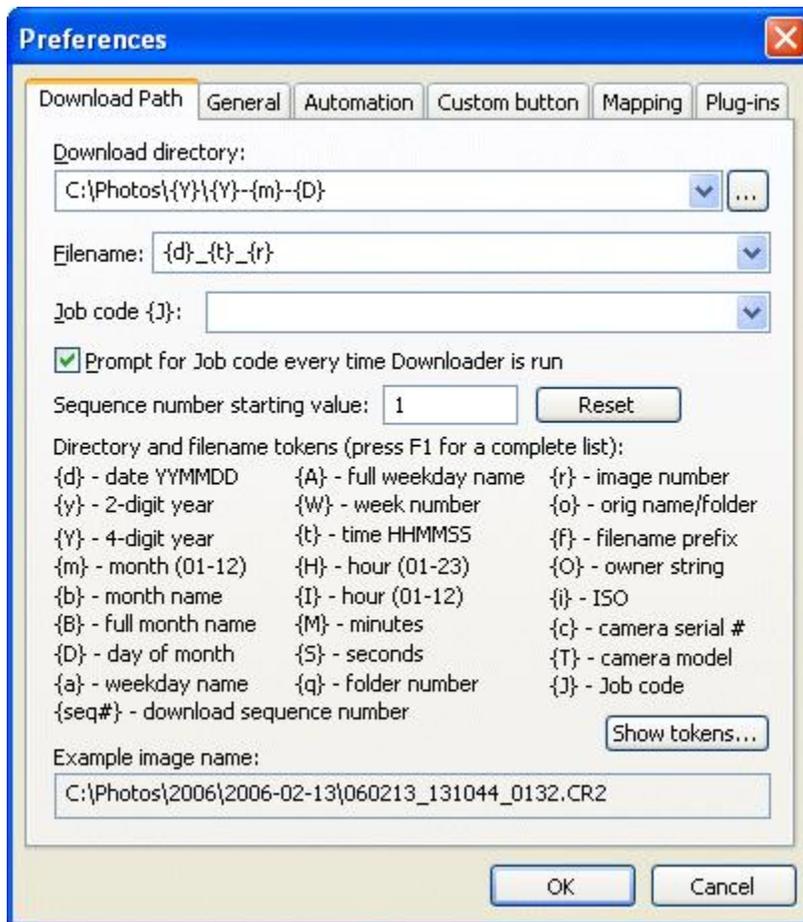


Canon PowerShot S2 IS menu showing the File number reset option turned off.

An alternative way to resolve this problem is to change the name of the downloaded files to ensure they are different. Prefixing the filename with the time will ensure images with the same filename but taken at different times will be downloaded without any problems. Some suggested alternatives are listed below:

e.g. A file taken at 13:07:20 on March 1, 2006 with an original filename stored by the camera of IMG_0376.JPG

Filename string in DLPro's preferences	Name of downloaded file	Comment
{o}	IMG_0376.JPG	Original filename written by camera
{t}_{o}	130720_IMG_0376.JPG	Original filename prefixed by the time it was taken
{d}_{t}_{o}	060301_130720_IMG_0376.JPG	Original filename prefixed by the date and date it was taken
{d}_{t}_{r}	060301_130720_0376.JPG	Date and time image was taken followed by image number



You will also get this error if you are using the JPEG auto profile plug-in or the JPEG resolution plug-in unless you select "Ignore file size check to allow for images modified after downloading" in [Downloader Pro's preferences](#). This is because these plug-ins add information to JPEG files which changes the size of the downloaded file.

"Name clash"

This occurs when two different files on the memory card have the same download names. One reason for this is when you specify a download filename such as {t} which names the files according to the time they were taken. You may get a "Name clash" error if you try to name files this way and your camera takes more than one shot per second. The easiest way to avoid this is to specify a download filename which includes more information to ensure the filenames are unique e.g. you might use {t}_{r} which puts the image number after the time.

If you have a Canon EOS-1D series camera (1D, 1Ds, 1D Mark II or 1Ds Mark II) or a recent Nikon digital SLR and are downloading using a card reader you can use the tokens {r8}, {r85} or {r86}. These read the image counter which is the total number of shots the camera has taken.

"Time different"

This means that there is a file of the same name and size but with a different file timestamp is in the download directory. The usual reason for this is the file has been modified after it has been downloaded. Normally this is not a problem, but you should check that it is the same file before erasing the memory card. The best way to avoid this problem is to download all your images before modifying them in another app.

7 Filename and Directory tokens

This section lists the tokens that can be used to specify the download directory and filename. Please see the section on "[Using filename and directory tokens](#)" for information on how to use tokens.

Shooting date and time tokens

{a}	Abbreviated weekday name	e.g. Fri
{A}	Full weekday name	e.g. Friday
{b}	Abbreviated month name	e.g. Jun
{B}	Full month name	e.g. June
{d}	Date in the form YYMMDD (equivalent to {y}{m}{D})	e.g. 040611 for June 11, 2004
{D}	Day of the month (01 to 31)	
{H}	Hour (00 to 23)	
{l}	Hour (01 to 12)	
{j}	Day of the year (001 to 366)	
{m}	Month (01 to 12)	e.g. 06 for June
{M}	Minutes (00 to 59)	
{p}	am/pm indicator (upper case)	e.g. PM
{plc}	am/pm indicator (lower case)	e.g. pm
{P}	Quarter: Jan-Mar=1, Apr-Jun=2, Jul-Sep=3, Oct-Dec=4	e.g. Q{P} gives Q2 for June
{s}	Date/time subsecond timing (only available with some cameras e.g. Nikon DSLRs and recent Canon DSLRs when using a card reader e.g. 40D and 1DMk3)	e.g. 56
{S}	Seconds (00 to 59)	
{t}	Time in the form HHMMSS (equivalent to {H}{M}{S})	
{epoch}	Time in seconds since January 1, 1970 (10-digit number)	e.g. 1159805283 for 17:08:03 on Oct 2, 2006
{epoch36}	Time in seconds since January 1, 1970 expressed in base 36 using the characters 0-9 and A-Z (6 character string)	e.g. J6INHF for 17:08:03 on Oct 2, 2006
{W}	Week number (00 to 53). Week 01 is the first week of the year containing a Monday	e.g. 00 for Tuesday 1st January 2013
{WI}	ISO week number (00 to 53). Week 01 is the first week of the year containing a Thursday. Note: This doesn't strictly adhere to the ISO standard because it returns 00 for Sun 2 Jan 2005 when it should return 53. The full ISO week date for Sun 2 Jan 2005 is actually 2004-W53-7.	e.g. 01 for Tuesday 1st January 2013
{IWD}	Full ISO week date in the form year, week number, day number	e.g. 2013-W01-2 for Tuesday 1st January 2013
{x}	Date representation for locale	e.g. 06_11_04 for June 11, 2004
{X}	Time representation for locale	e.g. 14_39_29
{y}	Year without century	e.g. 04 for 2004
{Y}	Year with century	e.g. 2004
{z}	Time zone name	e.g. GMT Standard Time
{Z}	Time zone offset wrt UTC	e.g. +0100 for GMT during DST
{#c}	Long date/time representation for locale (IPTC data only)	e.g. 29 December 2005 15:34:26
{#x}	Long date representation for locale (IPTC data only)	e.g. 29 December 2005
{1}	Year 'now' in the form YYYY i.e. the download date	e.g. 2004
{2}	Month 'now' (01 to 12) i.e. the download date	
{3}	Day 'now' (01 to 31) i.e. the download date	
{4}	Year 'now' in the form YY i.e. the download date	e.g. 04 for 2004
{5}	Year less 3 hours in the form YYYY. This is useful when	e.g. shots for a new Year's eve

	shooting events which start in the evening and continue into early the next morning and you want to use the same date for the whole event. The tokens {5}, {6}, {7} and {8} return the date the image was shot less 3 hours. Using these tokens will ensure that images shot before 3am will use the previous day's date.	party on 31 December 2004 will return 2004 up to 3am on 1 January 2005.
{6}	Month less 3 hours (01 to 12). Please see {5} for full description	
{7}	Day less 3 hours (01 to 31). Please see {5} for full description	

Shooting data tokens

{c}	Camera serial number (Canon EOS cameras and recent Nikon digital SLRs only)	
{C}	Canon EOS-1D/1DS style camera serial number	
{e}	File extension (without the '.')	e.g. JPG for IMG_4567.JPG
{E}	File type based on the file extension. Evaluates to "JPG" for .JPG, .JPE and .JPEG extensions and to "RAW" for all other extensions. Suggested use: To separate JPEGs and raw files when shooting in raw+JPEG mode.	e.g. Set download directory to D:\Photos\{E} and JPEGs will be downloaded to: D:\Photos\JPG and all other files will be downloaded to: D:\Photos\RAW
{E1}	Same as {E} except it evaluates to an empty string for JPEG files and "RAW" for other file types.	
{E2}	Same as {E} except it evaluates to "JPG" for JPEG files and an empty string for other file types.	
{E3}	Same as {E} except it evaluates to an "JPG" for JPEG files and "MOV" for other file types.	
{E4}	Same as {E} except it evaluates to an empty string for JPEG files and "MOV" for other file types.	
{E5}	Same as {E} except it evaluates to "MOV" for movie files and THM thumbnails and an empty string for other file types.	
{E6}	Same as {E} except it evaluates to "RAW" for raw files and an empty string for other file types.	
{E7}	Same as {E} except it evaluates to "movies" for movie files and THM thumbnails and an empty string for other file types.	
{E8}	Same as {E} except it evaluates to an empty string for movie files and THM thumbnails and "pictures" for other file types.	
{E9}	Same as {E} except it evaluates to "videos" for movie files and THM thumbnails and an empty string for other file types.	
{f}	First 3 characters of image name	e.g. IMG for IMG_4567.JPG
{file[n-m]}	Extract characters from the filename: {file[n-m]} returns characters n to m of the original filename {file[n]} extracts character n from the original filename {file[-n]} returns the filename starting from character n {file[-n]} returns n characters starting from the end of the filename	e.g. Using filename IMG_4567.JPG {file[2-4]} gives MG_ {file[3]} gives G {file[3-]} gives G_4567 {file[-6]} gives G_4567
{i}	ISO value read from the shooting data	
{k}	ISO value read from the shooting data (same as {i} except ISO 0 is returned as "Auto")	

{K1}	Lens focal length in mm	e.g. 28
{K2}	Aperture	e.g. 5.6
{K3}	Shutter speed	e.g. 125 for 1/125 sec
{o}	Image folder name when used in download directory, original image name when used for filename	e.g. \DCIM\123CANON\IMG_4567.JPG evaluates to: 123CANON when used in the download directory IMG_4567 when used in the filename
{O}	Owner string (Canon cameras only)	
{q}	The number of the image folder	e.g. 123 for images in \DCIM\123CANON
{Q}	Image folder name	e.g. 123CANON for images in \DCIM\123CANON
{Q1}	Source folder pathname without drive name ({Q} prefixed with \DCIM\ when downloading directly from a Canon camera)	e.g. \DCIM\456NIKON
{Q2}	Source folder pathname relative to source folder (same as {Q1} when downloading directly from a Canon camera)	
{Q3}	First character of source folder when downloading from a card reader (i.e. the drive letter)	
{readOnly}	Returns 'read_only' if file is read only or empty string otherwise	e.g. read_only for a file that is read only
{readOnly1}	Returns 'high' if file is read only or empty string otherwise	e.g. high for a file that is read only
{readOnly2}	Returns 'high' if file is read only or 'low' otherwise. Useful when important images are marked as protected in the camera before downloading as it can be used to sort them into high and low priority folders.	e.g. low for a file which is not read only
{r}	Image number	e.g. 4567 for IMG_4567.JPG
{r1}	Last digit of the image number. Useful when renaming using the date and time and shooting at more than 1fps e.g. {d} {t} {r1}	e.g. 7 for IMG_4567.JPG
{r2}	Last two digits of the image number. Useful when renaming using the date and time e.g. {d} {H}{M} {r2}	e.g. 67 for IMG_4567.JPG
{r3}	Last three digits of the image number	e.g. 567 for IMG_4567.JPG
{r4}	Last four digits of the image number	e.g. 4567 for IMG_4567.JPG
{r5}	Last digit of the folder number followed by the last four digits of the image number	e.g. 34567 for IMG_4567 in folder 123CANON
{r6}	First digit of the folder number followed by the last four digits of the image number. This is useful for cameras where only the first digit of the folder number is unique and the last two digits are the same as the first two digits of the image number.	e.g. 14567 for IMG_4567 in folder 145CANON
{r7}	Same as {r6} but subtracts 1 from the first digit of the folder number. This is to allow numbering from 00001 for cameras which start numbering folders from 100.	e.g. 04567 for IMG_4567 in folder 145CANON
{r8}	Image or shutter activation counter. Only available when downloading images using a card reader from the following cameras: Canon EOS-1D/1Ds/1DMk2/1DsMk2 and Nikon DSLRs from the D70 onwards	e.g. 123
{r85}	Same as {r8} but padded with leading zeroes to give a 5-digit number	e.g. 00123
{r86}	Same as {r8} but padded with leading zeroes to give a	e.g. 000123

	6-digit number	
{n1}	Download sequence number for this session only with no leading zeroes	Please see the notes below
{n2}	As {n1} but padded with leading zeroes to give a 2-digit number	Please see the notes below
{n3}	As {n1} but padded with leading zeroes to give a 3-digit number	Please see the notes below
{n4}	As {n1} but padded with leading zeroes to give a 4-digit number	Please see the notes below
{N1}	Date-based download sequence number with no leading zeroes	Please see the notes below
{N2}	As {N1} but padded with leading zeroes to give a 2-digit number	Please see the notes below
{N3}	As {N1} but padded with leading zeroes to give a 3-digit number	Please see the notes below
{N4}	As {N1} but padded with leading zeroes to give a 4-digit number	Please see the notes below
{l}	"Uniqueness" number evaluates to the lowest number required to give a unique download filename or empty string if not required	Please see the notes below
{la}	Same as {l} but with the number expressed using the letters 'a' to 'z' e.g. 1='a', 2='b', 26='z', 27='aa', 28='ab'	Please see the notes below
{l2}	2-digit "uniqueness" number padded with leading zeroes	Please see the notes below
{l3}	4-digit "uniqueness" number padded with leading zeroes	Please see the notes below
{l4}	4-digit "uniqueness" number padded with leading zeroes	Please see the notes below
{L}	Same as {l} but starts numbering from 1	Please see the notes below
{La}	Same as {L} but with the number expressed using the letters 'a' to 'z' e.g. 1='a', 2='b', 26='z', 27='aa', 28='ab'	Please see the notes below
{L2}	Same as {l2} but starts numbering from 1	Please see the notes below
{L3}	Same as {l3} but starts numbering from 1	Please see the notes below
{L4}	Same as {l4} but starts numbering from 1	Please see the notes below
{seq#}	Download sequence number	Please see the notes below
{seq#2}	As {seq#} but padded with leading zeroes to give a 2-digit number	Please see the notes below
{seq#3}	As {seq#} but padded with leading zeroes to give a 3-digit number	Please see the notes below
{seq#4}	As {seq#} but padded with leading zeroes to give a 4-digit number	Please see the notes below
{seq#5}	As {seq#} but padded with leading zeroes to give a 5-digit number	Please see the notes below
{seq#6}	As {seq#} but padded with leading zeroes to give a 6-digit number	Please see the notes below
{R}	"Downloads today". This token keeps a count of the number of downloads performed today and can be used to number each download to avoid duplicate filenames.	
{T}	Camera model name starting from the first word containing digits	e.g. 30D for Canon EOS 30D
{T1}	Same as {T}, but '-' are treated as spaces	e.g. 1DS for Canon EOS-1DS
{T2}	Full camera model name	e.g. Canon EOS 5D
{T3}	First word of camera model name containing digits	e.g. DC4800 for KODAK DC4800 ZOOM DIGITAL CAMERA
{T4}	Same as {T3}, but '-' are treated as spaces	e.g. 1D for Canon EOS-1D Mark II

{T5}	Last word of camera model name containing digits	e.g. 30D for Canon EOS 30D
{T6}	Same as {T5}, but '-' are treated as spaces	e.g. 1Ds for Canon EOS-1Ds Mark II
{T8}	Uses the value defined in Camera name mapping preferences (defaults to {T1} if no mapping is defined)	
{T9}	Uses the value defined in Camera name mapping preferences (defaults to {T1} if no mapping is defined)	
{v}	Camera model name starting from the first word containing digits (same as {T1} for compatibility with BreezeBrowser)	
{V}	Full camera name (same as {T2} for compatibility with BreezeBrowser)	

Other tokens

{J}	Job code	
{u}	"My Pictures" folder (not all versions of Windows support this)	e.g. C:\Documents and Settings\chris\My Documents\My Pictures
{U}	"My Documents" folder	e.g. C:\Documents and Settings\chris\My Documents
{vol}	Disk volume name (card readers and disk drives only)	e.g. EOS_DIGITAL

Download Sequence Numbers

Downloader Pro can allocate a download sequence number to images which can be used to number images as they are downloaded. For the {n} and {N} tokens the sequence is allocated in time/date order with the oldest image starting at 1 each time Downloader Pro is run. The {seq#} tokens continue numbering from the last image downloaded and can be used for the continuous numbering of images even if Downloader Pro is closed and run again.

The sequence number can be accessed using the tokens {n1}, {n2}, {n3} and {n4} to give 1-digit, 2-digit, 3-digit or 4-digit numbers respectively e.g. {n3} will give numbers like 001, 002, 003 etc.

The tokens {N1}, {N2}, {N3} and {N4} work in a similar way but the numbering is reset to 1 for each new date e.g. images from Jan 1 will start from 1 and {N2} would give values like 01, 02, 03 and images from Jan 2 would also start from 01.

These tokens should be used in conjunction with the date tokens to avoid duplicate filenames e.g. set the filename to "{d}_{N3}".

Warning: Please use the {n} and {N} tokens carefully. They are fine if you only ever download one set of images at a time but may result in duplicate filenames if you download several memory cards on the same day.

The tokens {seq#}, {seq#2}, {seq#3}, {seq#4}, {seq#5} and {seq#6} give 1-digit, 2-digit, 3-digit, 4-digit, 5-digit or 6-digit numbers respectively. Downloader Pro keeps a record of the sequence number between sessions and will continue numbering where it left off the next time it is run. The initial value for the sequence number can be set in [Preferences](#). Please note that if the same memory card is downloaded twice the second set of images will be given

new sequence numbers resulting in two copies of each image.

Uniqueness Numbers

Downloader Pro can add a "uniqueness number" to the download filenames to avoid duplicate filenames. The `{l}` tokens evaluate to an empty string if the filename is already unique otherwise they are set to the lowest number that will give a unique filename. The `{L}` tokens are similar to the `{l}` tokens except that they always evaluate to a number.

Tip: Prefix `{l}` with a space, dash or underscore if you wish to visually separate the uniqueness number from the rest of the filename. If `{l}` evaluates to an empty string the trailing space, dash or underscore will be removed (see the `{d} {l3}` example below)

For example suppose files are named using the date they were taken (e.g. `{d}`) and three images were taken on the same day. This would result in three different source files all having the same download filename e.g. `20051228.jpg`. This would produce duplicate filenames if more than one image was taken on the same day. The duplicate filenames can be avoided by using one of the uniqueness number tokens:

Source filename	<code>{d}</code> value	<code>{d}{l}</code> value	<code>{d}{la}</code> value	<code>{d}_{l3}</code> value	<code>{d}_{L}</code> value
IMG_1234.JPG	20051228.JPG	20051228.JPG	20051228.JPG	20051228.JPG	20051228_1.JPG
IMG_1235.JPG	20051228.JPG	200512281.JPG	20051228a.JPG	20051228_001.JPG	20051228_2.JPG
IMG_1236.JPG	20051228.JPG	200512282.JPG	20051228b.JPG	20051228_002.JPG	20051228_3.JPG

Please Note: Downloader Pro only compares the download filenames with the other files on the source drive. It does not check the names of files already in the download directory because this would make it impossible for Downloader Pro to keep track of which files have already been downloaded. The images are sorted into timestamp order (followed by alphabetical if two images have the same timestamp) before allocating the uniqueness numbers. This additional sorting may cause Downloader Pro to run slowly when downloading large numbers of images. The uniqueness tokens can only be used to define the download filename and shouldn't be used to specify the download directory.

Tokens for modifying strings

The tokens below can be used to modify tokens or strings:

Token	Description	Example
<code>{left,n,str}</code>	Extracts the first n characters from str (which can be a string or token).	<code>{left,4,{T2}}</code> for an image taken with a Nikon Z7 will give: Niko
<code>{mid,n,m,str}</code>	Extracts m characters starting from the n'th character from str (which can be a string or token).	<code>{mid,1,4,{T2}}</code> for an image taken with a Nikon Z7 will give: ikon
<code>{right,n,str}</code>	Extracts the last n characters from str (which can be a string or token).	<code>{right,3,{T2}}</code> for an image taken with a Nikon Z7 will give: 300
<code>{field,n,str}</code>	Extracts the nth field from str. Fields are separated by space, period, hyphen, slash, backslash or underscore characters	<code>{field,1,IMG_0001.JPG}</code> will give: IMG

{field2,n,ch,str}	Extracts the nth field from str using the character ch as the field separator	{field2,2,-,one-two-three} will give: two
{first,str}	Extracts the first word from str (which can be a string or token).	{first,{T2}} for an image taken with a Nikon Z7 will give: Nikon
{last,str}	Extracts the last word from str (which can be a string or token).	{last,{T2}} for an image taken with a Nikon Z7 will give: Z7
{default,str1,str2}	Returns str1 unless it is an empty string in which case it returns str2 (str1 and str2 can be strings or tokens).	{default,{J},none} returns the job code if defined and defaults to "none" if it is not defined.
{if,test,str1,str2}	Returns str1 if test is not an empty string else returns str2 (test, str1 and str2 can be strings or tokens)	{if,{E1},JPEG file,not a JPEG} returns "JPEG file" if the file has a JPEG file extension else returns "not a JPEG"
{compare,str1,str2}	Returns 1 if str1 is the same as str2 else returns an empty string	{compare,photo,photo} returns 1, {compare,photo,image} returns empty string
{contains,str1,str2}	Returns 1 if str1 contains str2 else returns an empty string	{contains,photo,to} returns 1, {contains,photo,camera} returns empty string
{upper,str}	Converts str to upper case	{upper,{B}} for a photo taken in June gives: JUNE
{lower,str}	Converts str to lower case	{lower,{B}} for a photo taken in June gives: june
{capitalize,str}	Converts str to lower case and capitalizes the first letter	{capitalize,john} gives John
{field,n,str}	Extracts the nth field from str (fields are separated by space, ., - or _)	{field,2,{o}} for filename IMG_1234.jpg would give 1234

Tokens for country code/name lookup

The tokens below can be used to convert between ISO-3166 alpha2 and alpha3 country codes and names:

Token	Description	Example
{cc1,code}	Looks up the country name given the ISO-3166 alpha2 or alpha3 country code (code can be a string or token).	{cc1,USA} gives United States
{cc2,alpha3}	Looks up the ISO-3166 alpha2 country code given the alpha3 code (alpha3 can be a string or token).	{cc2,DEU} gives DE
{cc3,alpha2}	Looks up the ISO-3166 alpha2 country code given the alpha3 code (alpha2 can be a string or token).	{cc3,GB} gives GBR

Tokens can be combined as in the example below:

Suppose the job code consists of a four digit job number followed by a 2 character country code and the client's name
e.g. "1234GB Jones" and "1235US John Doe Inc."

{J} gives the full job code - "1234GB Jones" or "1235US John Doe Inc."

`{left,4,{J}}` gives the job number - "1234" or "1235"
`{mid,4,2,{J}}` gives the 2 character country code - "GB" or "US"
`{cc1,{mid,4,2,{J}}}` gives the country name - "United Kingdom" or "United States"
`{cc3,{mid,4,2,{J}}}` gives the 3 character country code - "GBR" or "USA"
`{mid,7,100,{J}}` gives the client name - "Jones" or "John Doe Inc."

Or used with the [geonames place name](#) tokens e.g. Geonames returns a two character country code and this can be converted to a three character country code for use in IPTC/XMP data using `{cc3,{geonames_countryCode}}`

Defaulting to the GB country code when GPS data or geonames data is not available:
`{default,{geonames_countryCode},GB}`

8 Release Notes

Supported Platforms

Downloader Pro will run on Windows 11, Windows 10, Windows 8

24 March 2023: v2.6.4

1. Added support for Canon EOS R3, Canon EOS R6 Mark II, Canon EOS R7, Canon EOS R8, Canon EOS R10 and Canon EOS R50

3 May 2022: v2.6.3

1. Added support for downloading GoPro raw files with .gpr file extension
2. Added support for downloading Canon raw video files with .crm file extension
3. Added `{compare,str1,str2}` and `{contains,str1,str2}` tokens for comparing strings
4. Added `{field,n,str}` and `{field2,n,ch,str}` tokens for extracting parts of strings
5. Fixed an issue reading subsec times from Canon CR3 raw files

23 October 2020: v2.6.2

1. Added support for Canon EOS 850D/Rebel T8i, Canon EOS R5, Canon EOS R6 and Canon EOS 1D-X Mark III
2. Fixed an issue updating the owner string, artist and copyright information for recent Canon cameras
3. Minor improvements to the option to prompt for the job code each time Downloader Pro is run

15 January 2020: v2.6.1

1. Added support for Canon EOS 90D, Canon EOS M6 Mark II, Canon EOS M200, Canon PowerShot G5 X Mark II and Canon PowerShot G7 X Mark II
2. Added the option to disable PTP transfers to allow raw files to be downloaded from card readers when using Windows 10
3. Improved display of thumbnails from Canon CR3 raw images when using a card reader

27 May 2019: v2.6

1. Added support for Canon EOS RP, Canon EOS 250D/Rebel SL3 and Canon PowerShot SX70HS
2. Added support for Canon CR3 format raw files in the Adobe DNG converter plug-in
3. Fixed an issue with registering for Windows AutoPlay when installing Downloader Pro

19 December 2018: v2.5

1. Added support for the new Canon CR3 raw file format
2. Added support for Canon EOS R, Canon EOS M50, Canon EOS 6D Mark II, Canon EOS 200D/Rebel SL2, Canon EOS 1500D/2000D/Rebel T7, Canon EOS 3000D/4000D

29 June 2017: v2.4.1

1. Added support for Canon EOS 77D, Canon EOS 800D/Rebel T7i, Canon EOS 1300D/Rebel T6, Canon EOS 5D Mark IV, Canon EOS-1D X Mark II

2. Added options for improved display on high DPI screens
3. Now uses new installer to fix problems installing the software on large hard disks

14 August 2015: v2.4

1. Added support for Canon EOS 5Ds, Canon EOS 5Ds R, Canon EOS 7D Mark II, Canon EOS 760D/Rebel T6s and Canon EOS 750D/Rebel T6i
2. Added {file,n,str} token to make it easier to extract values from strings
3. Fixed a problem caused by images which contain invalid time information in the EXIF DateTime field e.g. an invalid time value such as 24:40:25
4. Fixed a problem reading the camera model name from the EXIF data of some Sony cameras

2 June 2014: v2.3.1

1. Fixed a problem with Geonames place name lookup

26 May 2014: v2.3

1. Added support for direct downloading from the Canon EOS 1200D/Rebel T5
2. Improved support for downloading from PTP devices such as smart phones
3. Updated support for Geonames place name lookup to include a username

28 November 2013: v2.2.9.3

1. Added support for direct downloading from the Canon EOS 70D, Canon EOS 700D/Rebel T5i and Canon EOS 100D/Rebel SL1
2. Added {if,test,str1,str2} token for conditional string replacement
3. Added {vol} token for reading the disk volume name when downloading from a card reader or disk drive

25 January 2013: v2.2.9.2

1. Added support for Phase One IIQ raw files
2. Added support for direct downloading from the Canon EOS M and Canon EOS 6D
3. Added {WI} token for ISO week number and {IWD} token for full ISO week date

2 August 2012: v2.2.9.1

1. Fixed a problem where only the first image was listed when downloading from a memory card reader
2. Improved reading of EXIF shooting from 5D Mark III images when downloading from a card reader so that the serial number is available when using camera name mapping

26 July 2012: v2.2.9

1. Added support for direct downloading from the Canon EOS 600D/Rebel T3i, Canon EOS 650D/Rebel T4i, Canon EOS 1100D/Rebel T3, Canon EOS 5D Mark III and Canon EOS-1DX
2. Added support for EXIF 2.3 shooting data (OwnerName and SerialNumber)
3. Added support for .3GP and .MXF video files

17 November 2010: v2.2.8

1. Added support for direct downloading from the Canon EOS 60D
2. Added tokens for converting strings to [upper or lower case](#)
3. Added {E9} token which returns the value 'videos' for movie files
4. Added support for .MP4 video files and .MPO 3D files
5. Improved support for reading shooting data and displaying thumbnails for MOV movie files from recent Canon DSLR cameras

10 June 2010: v2.2.7

1. Added the following tokens for distinguishing between picture and movie file types: {E5}, {E6}, {E7}, {E8}
2. Added support for Samsung SRW raw files
3. Added support for downloading MTS video files
4. Updated software protection libraries to fix problems with Downloader Pro crashing at startup on

some systems

15 March 2010: v2.2.6

1. Added support for reading MPO files from Fuji FinePix REAL 3D W1 cameras
2. Now displays thumbnails when downloading directly from recent Canon EOS digital SLRs
3. Added support for downloading directly from the Canon EOS 550D/Rebel T2i
4. Fixed a problem listing previously deleted files when downloading directly from Canon EOS digital SLRs

28 December 2009: v2.2.5

1. Added {E3} and {E4} tokens to help sort movie files to different subfolders
2. Added a workaround to fix a crash caused by Comodo Firewall on Windows Vista SP2
3. Added support for downloading directly from the Canon EOS 7D and Canon EOS-1D Mark IV
4. Now downloads THM thumbnail files when downloading movie files directly from Canon EOS cameras. Also handles the downloading of very large movie files (i.e. 2GB and larger) directly from Canon EOS cameras.
5. Improved performance when downloading directly via USB from recent Canon DSLR cameras
6. Fixed a problem reading shooting data from iPhone images
7. Now ignores filenames starting with . (from folders copied from Mac computers) which can cause Downloader Pro to crash

14 July 2009: v2.2.4

1. Now allows tokens to be used in IPTC keywords
2. Added support for downloading directly from the Canon EOS 500D/Rebel T1i
3. Fixed a problem displaying the status of files larger than 2GB which have been downloaded successfully
4. Improved protection against corrupted JPEG image files
5. Added support for downloading video files with .mts file extension (no detailed shooting data, only date and time based tokens)
6. Added the ability to [set the artist and copyright fields](#) for recent Canon cameras that support this
7. Added compatibility options for the [DNG converter plug-in](#) to allow DNG files to be created which are compatible with older versions of Photoshop, Lightroom and other software

11 February 2009: v2.2.3

1. Added support for downloading very large files e.g Canon EOS 5D Mark II video files in excess of 2Gb in size
2. Added optional prompt to enter camera name mapping values when a new camera is detected
3. Fixed a problem reading the camera serial number from Nikon NEF files

4 November 2008: v2.2.2

1. Added support for downloading directly from the Canon EOS 50D and Canon EOS 5D Mark II
2. Added support for Nikon NRW raw files (from the Coolpix P6000)
3. Fixed a window sizing problem after closing Downloader Pro with the window maximized

8 October 2008: v2.2.1

1. Added command line option to select user profile at startup
2. Fixed a problem looking up place names using www.geonames.org when the PC's regional settings are set to use comma as the decimal separator
3. Fixed a possible crash when saving IPTC from the IPTC editor window

12 September 2008: v2.2

1. Added support for [user profiles](#)
2. Added [place name lookup using GPS data](#) and www.geonames.org
3. Added {cc1,str}, {cc2,str} and {cc3,str} tokens for converting between two and three character country codes and looking up country names
4. Added the following [new tokens for extracting parts of strings](#): {left,n,str}, {mid,n,m,str}, {right,n,str}, {first,str}, {last,str}, {default,str1,str2}

5. Fixed problems geo-tagging JPEGs which already contain a GPS IFD and added diagnostic "Check GPS data" right click option
6. Now reads camera serial number from images from recent Nikon digital SLRs (e.g. D300, D3, D700).

8 February 2008: v2.1

1. Added support for downloading directly from cameras using PTP protocol
2. Added options to the [Backup plug-in](#) to backup all images, JPEGs only or non-JPEGs only
3. Fixed a problem writing GPS data to JPEGs from recent Nikon cameras
4. Added {readOnly} tokens to allow important images marked as 'protected' to be downloaded into separate folders

4 October 2007: v2.0.4

1. Added support for Canon EOS 40D
2. Now reads subsecond timing from recent Canon cameras when using a card reader (e.g. 40D and 1DMk3)
3. Added support for more sentences in NMEA GPS track logs

21 August 2007: v2.0.3

1. Added an option in preferences to preserve the read-only status of images when downloading
2. IPTC/XMP keyword catalogs now support synonyms
3. No longer requires DEP (data execution protection) to be disabled when running on Windows Vista
4. Added support for downloading directly from Canon EOS cameras on Windows Vista (doesn't support older models which do not have Vista drivers)
5. Added support for downloading from the new Canon EOS-1D Mark III
6. Added support for downloading Mamiya ZD raw files
7. Now reads NMEA format GPS track logs with .txt, .nma and .gps file extensions

16 May 2007: v2.0.2

1. More robust handling of NMEA sentences with empty fields
2. Now writes XMP sidecar files for Minolta raw format files
3. Fixed problems writing XMP GPS data in locales which use comma for the decimal separator
4. Fixed a problem with the auto AdobeRGB setting in the JPEG auto-profile plug-in with JPEGs from some cameras
5. Fixed a problem with adding data and then auto-rotating JPEGs with images from some cameras

30 April 2007: v2.0.1

1. Added support for GPX format GPS track log files
2. Added support for Garmin ForeTrex XML track logs
3. Added support for Magellan NMEA track logs which use private \$PMGNTRK sentences
4. Extended Google Earth and Google Maps track log support to include locales which do not use '.' (period/full stop) as the decimal symbol
5. Thumbnail display now generates the thumbnail from the JPEG file if available when displaying ".RAW" raw files from Leica and Panasonic cameras
6. Now automatically skips the file size check for JPEG images when GPS geo-tagging is enabled to avoid misleading "size different" file size errors after downloading
7. Restored the "Register for AutoPlay" menu options when running on Windows XP
8. Added support for downloading Sony ARW raw files
9. Fixed problems writing GPS data to JPEG shooting data from some camera models

28 March 2007: v2.0

1. New thumbnail display making it easier to identify the contents of a memory card and select images for downloading
2. New automatic GPS geo-tagging of JPEG and raw images as they are downloaded using GPS track log data from devices such as the Sony GPS-CS1. Also optionally creates track log files which can be viewed in Google Earth or Google Maps

3. Added date based job codes making it easier to download memory cards containing different subjects shot on different days
4. Added support for IPTC/XMP metadata for compatibility with apps like Photoshop and BreezeBrowser Pro
5. Backup plug-in now supports one or two backups allowing two backup copies of images to be made as images are downloaded
6. New sequence numbering tokens added to make it easier to have continuous numbering when downloading images from multiple memory cards.
7. New more flexible token format to avoid possible conflicts with certain sequences (automatically updated from the old format when Downloader Pro v2 is run)
8. Added support for Hasselblad raw files
9. Settings can now be saved to a Windows registry file for backup purposes or when copying settings to another PC
10. Now works with AutoPlay on Windows Vista (allowing Downloader Pro to be launched automatically when a memory card is placed in a card reader)

4 May 2006: v1.9

1. Added support for downloading from the Canon EOS 30D
2. Added BreezeBrowser Pro style tokens for extracting shooting data from images for inclusion in the IPTC data
3. Added auto sRGB/AdobeRGB color profile selection based on the shooting data in the image to the JPEG auto profile plug-in

10 February 2006: v1.8.1

1. Minor update to fix a problem reading the shutter activation count (%r8 token) from images from Nikon digital SLRs. Also fixed a problem writing the values of some "numbered" tokens to IPTC data.

7 February 2006: v1.8

1. Added new DNG plug-in to automatically convert raw files from most cameras to Adobe's DNG format (requires Adobe's free DNG converter software)
2. Updated to read shooting data from the Nikon D200
3. Additional tokens added to generate unique download filenames
4. Improved interface for setting up camera name mappings
5. Added support for Sony R1 raw files

14 September 2005: v1.7

1. Added new backup plug-in
2. New option to automatically synchronize the clocks of Canon cameras with the PC's clock
3. Additional tokens added to read lens, shutter and aperture information from image shooting data
4. Added support for Adobe DNG files

3 December 2004: v1.6

1. Stores the last 12 download paths and job codes
2. Added token display window
3. Added %T9 token for more flexible camera name mapping
4. Added support for Konica Minolta raw files

18 October 2004: v1.5

1. Added support for downloading directly from Canon EOS 20D and 1D Mark II cameras
2. Added new tokens which return the date offset by three hours to avoid a date change when shooting late at night after midnight

26 July 2004: v1.4:

1. Added %R "Downloads Today" token
2. Improved setting of camera data for Canon PowerShot cameras
3. Added support for Kodak and Sigma raw files

4. Now stores IPTC data in THM thumbnail files when available

22 April 2004: v1.3:

1. Can now display thumbnails when downloading from card readers
2. Added %E token to allow raw and JPEG files to be separated
3. Added camera name mapping function
4. Added new directory maker plug-in

8 November 2003: v1.2

1. Now supports the downloading of raw files from Fuji, Pentax and Minolta cameras
2. Added %r1, %r2 and %r3 tokens for extracting parts of the image file number
3. Ability to set Canon EOS 300D/Digital Rebel flash exposure correction added to the camera settings dialog

22 July 2003: v1.1

1. Now supports downloading from Canon cameras which use PTP e.g. Canon PowerShot G5, S400, S50, A300, A60 and A70
2. Additional tokens added for extracting camera model names
3. Reads subsecond timing from shooting data

12 May 2003: v1.0

1. First release of Downloader Pro