

CamCollect - Contents

CamCollect is a new 32-bit Windows 95, Windows 98 and Windows NT 4.0 package designed to download, display and save images from the many web cams appearing on the internet.

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Help File for CamCollect Release 1.1b, 20th July 1998 - non-illustrated version

What are Web Cams?

Web cams are video cameras whose output is automatically captured as a sequence of still frames which are posted to a web page, typically with a new picture every two minutes (but this varies a lot). So the web cam gives a near live picture of it's subject matter, which may be a beach or town street, someone's living room or bedroom (such as the famous JenniCam), or really any location with a computer and an internet connection. Web cams have various names, Net Cams, Home Cams, Show Cams and, Life Cams are commonly used.

While many web cams are free, some sexually oriented cams require membership to be paid but may also offer a less frequently updated 'guest' cam. So JenniCam has a member cam with two minute updates for \$15 per year or 20 minute updates free for guests. Most sexually oriented cams are \$10 to \$20 per month.

Some cams run continuously day and night, others are only operated for 'shows' for maybe one hour per day. Cam sites may be unpredictable, since the heavy internet traffic to the most interesting sites can bring down servers, people go on holiday, have sick computers, or just get bored having the web cam around. But for every site that disappears, more will appear!

Web cams are viewed as images within web pages. Most sites include pages that update automatically as new pictures are posted and some offer Javascript or Java floating windows so other web pages can be viewed while keeping an eye on the web cam site.

There are various web cam indexing sites, including:

PeepingMoe	http://www.peepingmoe.com/	Properly indexed, people (mainly adult)
Nose	http://www.homecams.com/	Properly indexed, people (mainly adult)
EarthCam	http://www.earthcam.com/	Self indexed, places, people, families
Online Camera	http://www.pejman.com/cmain.htm	Self indexed, people
Digital Camera Network	http://www.dcn.com	Broad range of cams, including many international indexed by country

CamCollect includes details of some default web cam sites to allow rapid set-up for collection of pictures. Although these details will be updated periodically, Magenta Systems Ltd will not be offering the same level of updates as the above sites. However the CamCollect web site, <http://www.magsys.co.uk/camcollect/> does include the latest default cam sites files updated every couple of weeks.

Please note that many web cams are supported by banner advertising, so do still visit the site using a browser and click on banners so the site owner makes some money to support your bandwidth usage. Some sites change the URL of their cam image on a daily basis, so regular site visits may be necessary anyhow. If you are paying a membership, forget about clicking banners.

CamCollect Overview

While a normal web browser can be used to 'watch' maybe two or three web cam sites, there's a high risk of missing 'interesting' pictures and saving pictures for later viewing is painful since each must be individually file named as it is being saved.

CamCollect is designed to automatically monitor web cam sites, downloading, enhancing, displaying and saving images from each site.

- CamCollect can monitor up to 100 pre-defined web cam sites that may be defined by the user or importing in bulk
- Checks selected sites at pre-defined intervals, with up to four scheduling periods during the day
- Tries to download only new images, but unchanged images are discarded (saves web bandwidth and disk space)
- The latest pictures from up to 50 web sites are displayed on a tabbed dialog with age and site local time
- CamCollect contacts up to eight web cam sites simultaneously (PC processing power permitting) to maximise internet usage and stop dead or slow sites effecting collections
- Images may be automatically enhanced before being displayed, to increase brightness, or adjust the gamma
- Displayed images are resized to fill the viewing window
- Images may be automatically captioned with site name and time, to ease subsequent identification
- Images are automatically saved on disk, with file names based on the date and time (fully customisable) or with sequential numbers
- A log window reports sites visited, pictures saved and errors
- A built-in image editor allows images to be viewed enlarged, cropped, have text added, be colour corrected, filtered or enhanced, and be saved in various image formats.
- Supports JPEG, BMP, PNG and TIFF images (no GIF for license reasons)
- A single button launches a web browser for the web cam site's home page
- Supports authentication for members only password protected sites
- Web cam site information can be imported from a text file to allow rapid set-up, and saved to text files to share with others

- CamCollect is dial-up networking (RAS) aware, will open a connection if required, indicates which connection is being used, and will ensure it is closed down when the program is exited

CamCollect is shareware, developed by Magenta Systems Ltd, in England. CamCollect may be evaluated for 30 days, but must be registered if usage is to continue. Until registered, CamCollect is crippled so that all images will be overlaid with nag text. Registration costs £15 (UKP) which is about \$25, and is done from the Registration option within CamCollect via email with an encrypted credit card number or by printing a page to the faxed or snail mailed.

Installation

CamCollect comprises merely a single program file `CAMCOLL.EXE` (about 1.2 Mbyte in size, with no extra DLLs or other run time supporting files. Installation will therefore not effect any other Windows applications. No files will be installed in the Windows directory. The only prerequisite is Windows 95 (any version), Windows 98 or Windows NT 4.0, with TCP/IP networking and Dial-Up Networking (Remote Access Services) installed, and a web browser to check site details. CamCollect should work on Windows98, but has not yet been tested. While a Pentium PC is recommended, CamCollect will work on 486/66 PCs with 16 Mbytes of memory, but anything slower is not recommended.

CamCollect is distributed as a ZIP file which should first be unzipped into a temporary folder. If you do not already have it, the [Winzip](http://www.winzip.com/) application from <http://www.winzip.com/> (or from most magazine cover CD-ROMs, Tucows archives, etc) is strongly recommended.

The program `SETUP.EXE` should then be run to install CamCollect. About 2 Mbytes of disk space is required for the software and documentation. However once running, CamCollect can easily use vast amounts of disk space for all the web cam images that will be downloaded!

Once installed, check through [Initial Use](#) for first time set-up information.

Initial Use

The first time the application is run, the various Main Windows will automatically arrange themselves, but may be resized as required.

Now take Settings, Program Preferences, define your favourite browser, and specify Dial-Up Networking defaults (unless you have a permanent internet connection. Then specify a default directory for downloaded images but leave the 'Automatically Create Directories' option as 'Ignore Site Directories' so that directories are automatically created for each web site. It is not recommended that images are downloaded to the C: drive, unless this has a large amount of spare space.

Next, take Settings, Define Web Cam Sites. This is where all the web cam site details are specified. While the details can always be manually completed, to get started CamCollect is distributed with one or more default `INI` files that may be imported to quickly set-up some initial sites. It should not be necessary to change any site details initially. Note that information from the INI file is copied into the Windows registry, and is not updated.

Having completed both Settings, select a web cam site from the Toolbar, and select File, Single Once. If Dial-Up Networking is not running, it will be started and the site web cam picture should appear shortly afterwards. Note that images will be overwritten with nag messages until CamCollect is registered, so please do not blame the web cam sites!

That completes the basic operation of CamCollect.

Main Windows

The following illustration shows three of the four main CamCollect windows:

All the windows are fully resizable and may be closed if not required.

The Web Cam Site Pictures Window displays the downloaded web cam pictures which may be automatically resized to appear as the maximum size possible. Tabs appear to indicate from which sites pictures have been collected in the current session.

The Session Status Window shows actual activity to the web sites.

The Web Cam Visit Log Window shows when each sites was last accessed and whether a new picture was successfully collected. It really needs to be wider than the illustration to see more details.

The Debug Window may usually be closed since this only shows commands to and from the web server (and is not shown in the illustration).

The View Menu has four tick options that allow these four windows to be enabled or closed.

Five main functions are available from the menus in the main Window or the button bar:

1. Collecting Pictures provides five different means of selecting which web cam sites are polled for pictures.
2. Site Home Page will launch a web browser and display the home page for the Site specified in the tool bar.
3. View/Edit Images Window allows single images to be viewed, manipulated, perhaps enhanced or cropped.
4. Program Preferences defines various options.
5. Define Web Cam Sites is where all the web cam site details are specified.

Site Home Page

This option will launch a web browser and display the home page for the Site specified in the tool bar. The specific browser launched is specified in Program PreferencesProgram Preferences. The URL of the site is specified in Define Web Cam Sites .

Web Cam Site Pictures Window

This window shows all the web cam images that are downloaded. It will initially appear empty, but tabs will appear as new images arrive, indicating the origin site name.

Clicking on a tab name will switch to that image and make that site 'active' for collection (by Single Once or Single Continuous)..

Double clicking on a picture will load that picture into the [View/Edit Images Window](#), so that it may be further manipulated, perhaps enhanced or cropped.

The status bar shows left to right:


- 1 Image dimensions in pixels, with (E) if automatically enhanced by CamCollect
- 2 Site time that image was uploaded with age when downloaded. The age is calculated by the difference in the web server time and image file stamp, but may be inaccurate for some web servers.
- 3 Current site time, calculated from local time adjusted by the time difference for the site time zone. This time will only be correct if the Site Details are also correct.


Session Status Window

This window shows the current status of the HTTP sessions to the various web cam sites. Depending upon how CamCollect Preferences are defined, there may be up to eight simultaneous sessions. Each sessions goes through various phases when downloading images (but each sometimes only taking a fraction of a second):

1. Contacting Server
2. Contacted Server, Getting Header
3. Getting Body, Size ??
4. Getting ?? of ??
5. Idle

The first phase is most likely to fail, if the CamCollect can not connect to the web server, perhaps because of failures in the internet, because the server is off-line or no longer exists. Windows will time out after about one minute if the server can not be contacted. Once the server has been contacted, there is no time-out, but the time taken to download an image may vary between a couple of seconds and several minutes. Some web servers are set-up using CGI scripts that do not indicate the image size or time stamp before download, so no total size can be provided.

Sometimes a session will stall because of problems with the web server or the internet route. A session may be terminated at any time by clicking on the appropriate session, then pressing the Stop Current  button. All sessions may be stopped using

. It will not be possible to stop a single session if this window is closed.

Debug Window

This window need only be used if there are problems accessing web sites. It shows the actual HTTP protocol messages that CamCollect sends to the web server and receives back in response. The start of each line indicates the session being logged, then < for received data, > for sent data and = for local comments.

Debug lines may appear jumbled in this Window, since multiple site are being contacted at the same time, with data arrived back randomly.

This window only maintains the last 25,000 characters of the debug log. The right click menu allows text to be selected and copied to another application if required for posterity.

Generally, this window may be closed.

Web Cam Visit Log Window

This window maintains a log of showing each web cam site access, detailing whether an image was successfully downloaded or if an error occurred. Each line starts with the local time, then the site name and finally the result on the session.

A successfully downloaded new image generates two lines:
13:21:33 Sara: Saved Image G:\campics\sara\sara1514.jpg
Image at 13:21:51, age 0 min(s) , download time 17 secs

Typical other session responses may be:

13:20:48 Kelly-L: Connection timed out (Error #10060)
The server was probably down.

13:21:03 Kate: Unsupported Content - text/html
Text was found instead of an image

13:22:23 Sara: Image Unchanged
The image has not changed since it was last downloaded.

13:57:44 Jenni-M: Stopped by User
The session was stopped by the user pressing a button or DUN dropping

13:58:42 Jenni-M: Empty File, Probably Being Updated
The image was empty. This usually happens because it's being updated on the web server at precisely the same time a download was attempted. A retry 10 seconds later usually works.

14:00:23 Jenni-M: File Size Mismatch - 21592
The means either the session stopped part way though the download, or the image file changed on the server during download (because it was updated).

14:10:05 Aja: ViewImage Error - PCX: Unknown subformat
A damaged image was downloaded which can not be displayed.

14:11:15 Aja: File Name Will Be Too Long For Save Volume
The save file name will be too long for the specified volume. This should only happen when saving to network drives using older operating systems such as NetWare or Windows 3.1.

14:12:15 Sara: Saved OK, But Too Many Images to Display
A new image has been downloaded and saved, but the maximum number of images are already being displayed in the Web Cam Image Window.

14:12:15 Jenni-G: Timeout on Slow Download
The site is so slow that the download has been timed out, according to details in Program Preferences.

Jenni-G - Freed Stuck Session

This message only appears if a session can not be stopped normally, probably due to a Windows errors.

A number of web error messages may also appear, usually as a three digit number with a description that may vary slightly between web servers. The common errors that may be reported are:

- 401 Unauthorised, a logon and password is needed to access this image, this may be added in the Site Details.
- 403 Forbidden, usually appears when the directory for a site has moved.








- 404 Not Found, appears when a specific file can not be found, probably because it has been renamed or the site has moved.
- 204 No content, there was an error creating the site.
- 301 Moved permanently, the site has moved.
- 302 Moved temporarily, the site has moved.
- 500 Errors in the 500 range are web server problems.

The status bar shows other general errors and progress messages.

This window only maintains the last 25,000 characters of the visit log. The right click menu allows text to be selected and copied to another application if required for posterity.

Collecting Pictures

There are five collection options, which appear on the File Menu and as five Buttons, and two different means of stopping collection:

	Single Once	Get the latest image from the Site specified in the button bar, unless disabled. Note that this option is still active while the other 'automated' options are being used.
	Single Continuous	Keep getting the latest image from the Site specified in the button bar until stopped, at the interval specified in the site details.
	Multiple Continuous	Displays a menu allowing multiple site selection, to get the latest image from each site until stopped, at the interval specified in the site details.
	Multiple Auto	Gets the latest image from each site specified for auto collection, until stopped, at the interval specified in the site details.
	All Once	Get the latest image from every specified site once, unless disabled.
	Stop Session or F5	Allows one session to be stopped, the one selected in the Session Status window
	Stop Continuous / Auto or F6	Stops all sessions immediately and cancels multiple continuous or automatic collection. This option is automatically selected when a dial-up networking is disconnected..

The View menu provides various display options:

Resize Images

Images will automatically be enlarged to the size of the Web Cam Site Pictures window. This is a display only option, and the files remain the original size.

Show Most Recent

This effects the multiple tab dialog, so each new image that arrives will 'click' the tab so it becomes immediately visible.

Only Fresh Images

Images for sites that have not been downloaded in this session will not be displayed. If not checked, older images will be read from disk.

Beep on Fresh

Obvious, but sometimes annoying, this may be a system sound or a beep.

Ignore Duplicate Checks

This is really a diagnostic option (and as such is reset for each session) that forces the latest image to be downloaded from the site even if it's been done previously, and causes it to be saved even if it's the same as previously. This may cause a file error if server time is being used for saving.

Automatic Disconnection

An option is available in Preferences that allows the dial-up networking connection being used by CamCollect to be automatically disconnected after the specified number of minutes. Note that disconnection will occur irrespective of whether the connection was started using CamCollect or another application. When the initial period expires, a dialog appears with a Reset button allowing the period to be reset to the beginning. Otherwise, the connection will be disconnected after two further minutes. During those two minutes, the Critical Stop sound will be played (PC configuration permitting) periodically to draw attention to the PC. A media file `REDALERT.WAV` is supplied which may be assigned to the Critical Stop function.

Program Preferences

These options reflect preferences that effect CamCollect defaults.

Use Dial-Up Networking

Unless the PC has internet access via a local area network, ticking this box allows Dial-Up Networking (or Remote Access Services) to be started automatically according to the connection details specified. If DUN/RAS is not installed, these boxes will be greyed.

If a DUN/RAS connection is already open when picture collection is started, these settings are ignored.

DUN/RAS will optionally close down when the program is exited, may be closed from the 'Close DUN/RAS' option on the File menu, or from the icon in the system tray.

Connection Properties and Create

These buttons will display the standard windows dialogs to edit the properties of the specified connection or allow a new connection to be created.

Connection, Logon Name and Password

The Connection box displays a list of all Dial-Up Networking (Remote Access Service) connections allowing one to be chosen for use by CamCollect. The logon and password for the internet account will be defaulted from the Phone Book or Connection, but may be changed. These changes will effect any other applications using this connection.

Auto Disconnect Minutes

If set to a non-zero value, this option allow the connection being used by CamCollect to be automatically disconnected after the specified number of minutes. Note that disconnection will occur irrespective of whether the connection was started using CamCollect or another application. When the initial period expires, a dialog appears with a Reset button allowing the period to be reset to the beginning. Otherwise, the connection will be disconnected after two further minutes. During those two minutes, the Critical Stop sound will be played (PC configuration permitting) periodically to draw attention to the PC. A media file REDALERT.WAV is supplied which may be assigned to the Critical Stop function.

Proxy Server and Port

Since CamCollect is designed to collect images with a life of only a few minutes, there is no performance advantage in using a proxy server (web cache). However it may be necessary to bypass a firewall on LANs.

Maximum Sessions

CamCollect supports connection to up to eight web servers simultaneously but this will only be practical on very fast PCs. The default is four, but this may need reduction for slow PCs.

Browser for Home Page View

CamCollect allows the various web cam sites to be accessed from a single button, and this option defines which browser will be used for this purpose. Users often have two or more browsers which fight for being the default, so choosing either Netscape (for which the program file must be specified, click the icon for a dialog), Internet Explorer or an alternative such as Mosaic or Opera by file name.

Default Image Directory

This directory will be used as the root directory for saving downloaded web cam images. Clicking the icon will display a directory selection dialog, and also allows a new directory to be specified by typing the name. It is recommended that this directory be on a volume with plenty of space, since downloading pictures will quickly use up disk space.

Automatically Create Directories

There are three options:

- | | |
|-----------------------|---|
| Use Site Directory | The Default Image Directory specified here is ignored, and images are saved in the directory specified in the Site Details. If no Site Directory is specified, an error will occur when saving Site Details or when attempting to collect pictures from the site. |
| Site Directory if Set | If a Site Directory has been specified, it will be used. Otherwise a directory with the Site Name will be created in the Default Image Directory (if it does not already exist). |
| Ignore Site Directory | A directory with the Site Name will be created in the Default Image Directory (if it does not already exist). |

So in the example above with a Default Image Directory 'g:\campics', the directory into which pictures would be downloaded for Site Name 'Anne' would be 'g:\campics\anne'.

Download Timeout

In an ideal world, all internet sites would respond immediately with rapid downloads. Unfortunately many web cam sites are heavy loaded and downloads can be refused or are very slow. There various options to handle such slow sites:

- | | |
|---------------------|---|
| None | The download may be timed out by Windows (if not yet connected to the server), or will continue for ever. It can be stopped manually, but no other sessions will start until then. |
| Specified Seconds | The download will timeout after the number of seconds specified on this tab. |
| Collection Interval | The download will timeout after the number of seconds between collections (less five seconds). This allows the next scheduled collection to occur, which might get a better connection. |

Note that the minimum download time before timeout is 15 seconds. Generally, at least one or two minutes should be allowed. When a download is timed out, a message will appear in the log window.

Ignore File Size Errors

If ticked, CamCollect will attempt to display pictures with a size that is different to the web header. However the usual reason for a difference in size is because the picture was replaced part way through the download, and so it may be corrupted and will cause a display error or look strange.

JPEG Save Quality

JPEG compression is lossy (unlike GIF), so when saving images it is necessary to specify the quality desired as a value between 30 and 100. The lowest value gives the worst quality images but the file size

will be the smallest. Quality does not visually improve much above about 85.

The quality specified in Preferences is used as a default for View/Edit Image, and for Sites which do not have a different JPEG Save Quality specified.

This JPEG Save Quality is only relevant if CamCollect manipulates the images in some way, to add a caption, border or enhance the images.

Sound for New Pictures

If the 'Beep on New' option is ticked, this will be the WAV sound file that is played instead of a simple system beep. It may be tested by pressing the button.

Define Web Cam Sites

Up to 100 web cam sites may be specified, either by manually setting them up, or by importing pre-defined sites (see below).

Two URLs are required for each site, the main home page and the web cam image. When an interesting site has been found using a browser, the home page URL should be copied (right click, select all, copy) from the browser window and pasted (right click, paste) into the Site URL field of a new site record.

Using the browser, then find the page with the active web cam image. Some sites have old images on some pages, so avoid these. You may need to open a 'Remote' window to find the image. Some sites use Java to display images, and it might not be possible to find an actual image URL, in which case CamCollect can not be used.

In Netscape, with the mouse pointer over the image, right click and take 'Copy Image Location' to save the URL to the clipboard, then past into Image URL field. Internet Explorer does not appear to allow the URL to be copied, but right click, Properties will display the name.

Note that the file size of web cam images can vary 10 fold, from 5,000 to 60,000 bytes. Images do vary in size, but the size primarily depends upon the level of JPEG Quality (ie level of compression) chosen by the site owner. Some sites have poor quality web cameras and deliberately have high compression to keep the image size small and site bandwidth lower. One of two sites have low compression even though the camera quality is poor.

Site Title

A very short description of the site, perhaps a name. Keep it short since it appears on various dialog and logs, and as the image saving directory if these are being created automatically.

Site URL

The address of the site's home page, which a browser will display. Note that sites do change URL periodically, as they move between different ISPs. Clicking the Test Site URL button will launch the browser to test the page.

Description, Availability and Comments

These are purely information fields that are not otherwise used by CamCollect.

Time Difference

A positive or negative number of hours being the difference between the local time at the site and your local time. This is used to display local time for site, and save and caption image with local time. The default sites supplied with CamCollect are set-up as a difference from GMT/BST (the time in England). Sites in America will be between five and eight hours behind the time in England.

Disable Collection from Site

Allows collection of pictures from this site to be temporarily disabled, without actually deleting it. May be used if a server is down or the site subject goes on holiday.

Image URL

The address of the web cam image file to collect. This will nearly always have a JPG file extension. Note that some sites change the image URL on a daily basis to frustrate applications such as CamCollect, so if new images do not appear daily, go to the site using a browser, check the URL and update it here. Clicking the Test Image button will launch the browser to test the image.

Collection Interval

Minutes and seconds between collection attempts for this image. Few sites update more often than

every two minutes and some are much slower, perhaps even daily. Each time an image is collected, the next collection time is set by adding this interval, and the continuous collection options will wait until this time before collecting again. The 'Single Once' and 'All Once' options force immediate collections.

If CamCollect shows that the image is unchanged say every other collection attempt, half the interval. Accessing the image too often is an internet bandwidth killer for the site, causing slow response and potentially large bills for the web site owner, the removal of their web site for excessive bandwidth usage or a change from being a freely available site to a pay site. So keep the collection interval high.

Authorisation Name and Password

Some sites are members only requiring a logon name and password for access, and these may be entered here. Note that this option supports the widely used HTTP basic authentication scheme, but it's possible some server may need encrypted passwords that are not currently supported.

Enable Auto Collection

If ticked, pictures will be collected from this site if the 'Multiple Auto' option is used.

Save Directory

Where images should be saved. The Save Directory is optional, and is only used if the 'Automatically Create Directories' option in Preferences is set to 'Use Site Directory' or 'Site Directory If Set'. Otherwise images are saved to a directory with the Site Name in the Default Directory specified in Preferences. Clicking on the icon will display a directory selection dialog allowing a different directory to be selected. A new directory may be created by typing the name. Leaving this field blank so directories are created automatically will mean fewer problems if the drive has to be changed later.

File Naming

Determines how saved image files will be automatically named. Server Time is the image date time stamp as supplied by the server (which is GMT even for American servers and is often inaccurate!). Local Time is 'now', adjusted by the site Time Difference. Sequentially means files will simply be named with an incrementing number (with no date or time).

Time File Mask

A complex field that determines how the automatic file name will be created. Any text to appear in the file name should be within single (') or double quotes ("). Otherwise this field is parsed according to Windows Regional Settings time and date masks and may be tested by clicking the button to see the result:

c	Date and time using the Windows default settings.
d	Day as a number without a leading zero (1-31).
dd	Day as a number with a leading zero (01-31).
ddd	Day as an abbreviation (Sun-Sat).
dddd	Day as a full name (Sunday-Saturday).
dddddd	Date using the short Windows default setting.
dddddd	Date using the long Windows default setting.
m	Month as a number without a leading zero (1-12).
mm	Month as a number with a leading zero (01-12).
mmm	Month as an abbreviation (Jan-Dec).
mmmm	Month as a full name (January-December).
yy	Year as a two-digit number (00-99).
yyyy	Year as a four-digit number (0000-9999).

h	Hour without a leading zero (0-23).
hh	Hour with a leading zero (00-23).
n	Minute without a leading zero (0-59).
nn	Minute with a leading zero (00-59).
s	Second without a leading zero (0-59).
ss	Second with a leading zero (00-59).
t	Time using the short Windows default setting.
tt	Time using the long Windows default setting
am/pm	The am/pm specifier can use lower, upper, or mixed case.
a/p	The a/p specifier can use lower, upper, or mixed case.
/	Date separator character.
:	Time separator character.

For example, the mask `yyyymmdd"-""hhnns` will result in the file name with the format `19980329-145404.JPG`. But the month could be alphabetic, or date and time separation may be added. Long file names of this sort may not be permissible on some network drives (such as NetWare or Windows 3.1).

Sequential File Prefix

Text that will be added before the sequential file number to create the file name, if File Naming is specified as Sequential.

Next Number

The next sequential number to be used for creating a file name, if File Naming is specified as Sequential. This number will be incremented each time a file is created, but may be defaulted to say 1000.

Length

The number of digits in the sequential number, to allow leading zeros to be added correctly. Adding leading zeros so the file name is always the same length will allow proper file sorting, otherwise 10 will sort before 2.

JPEG Save Quality

JPEG compression is lossy (unlike GIF), so when saving images it is necessary to specify the quality desired as a value between 30 and 100. The lowest value gives the worst quality images but the file size will be the smallest. Quality does not visually improve much above about 85.

The quality will default to that specified in Preferences but may be changed for specific sites. As discussed earlier, the original JPEG quality is determined by the site owner, so if the files are small with low quality there's no point in resaving them with high quality.

This JPEG Save Quality is only relevant if CamCollect manipulates the images in some way, to add a caption, border or enhance the images.

Caption Pictures

If ticked, a caption bar will be added to the bottom of each downloaded image, typically with the site name, date and time for identification purposes, using the Caption Mask text written in the Caption Font on the Border Colour background. A sample caption appears at the bottom of the dialog. If there is no text visible, this is probably because the font and background colours are the same. Since the images will be resaved after being captioned, ensure that the JPEG Save Quality is appropriately specified.

Caption Mask

A complex field that determines what text is written to the caption bar. Any text to appear in the file name should be within single (') or double quotes ("). Otherwise this field is parsed according to Windows Regional Settings time and date masks and may be testing by clicking the button to see the result. See above for mask details.

Caption Font

When clicked, displays a Font Dialog allow the Font name, style, size and colour to be selected for the caption text.

Add Border

If ticked, a border will be added around downloaded images, in the defined Border Colour.

Colour

When clicked, displays a Colour selection dialog allowing a specific colour to be selected for the caption background and border.

Image Enhancement, Auto Correct

When ticked, downloaded images will be automatically enhanced according to the settings made with the Correction dialog. Some web cam sites may consistently create dark images that can have their brightness automatically increased. Beware of over correcting images where the quality may widely vary. Since the images will be resaved after being captioned, ensure that the JPEG Save Quality is appropriately specified.

Correction

When clicked, displays a Brightness, Contrast, Gamma Filter dialog, displaying the last image from the site as a thumbnail. The sliders may be moved to enhance the picture. These setting will then apply to all pictures subsequently downloaded from the specific site. When selecting filter values, make sure the last picture has not already been automatically corrected (by downloading with Image Enhancement disabled), otherwise it's difficult to judge the correction required.

Schedules

If a site is known to only be active during particular times of the day, there's little point in regularly checking at other times. So four scheduling periods can be specified, with no automatic collection outside those times. A time range should be specified, for instance 01:00 to 03:00. Note that 00:00 is ignored and all fields must be in incrementing order to work properly. Single Once or All Once ignores scheduling.

Info Screen

A further tab, not illustrated here, shows information as to when the site was last accessed, when it is next scheduled to be accessed, the server time stamp and size of the last image downloaded (used to prevent duplicate images being downloaded), and finally the file name for the last image.

Applying Changes

When all changes have been made to the site details, Apply updates the site information in the Windows registry. Saving is however automatic if another site is accessed without Applying first.

Import Web Cam Sites

CamCollect is distributed with a file containing over 40 pre-defined web cam sites, which may be imported using this option to rapidly define a 40 sites. Pressing the button displays the 'Open Import File' dialog

box allowing the previously saved export file or the `DEFSITES.INI` pre-defined sites file to be selected. Once selected, a list of the sites defined in the file will appear, allowing one or more to be selected for import. No validation occurs during import, so it may be necessary to modify some sites, in particular if invalid Save Directories have been specified.

Export Web Cam Sites

CamCollect stores Web Cam Site details in the Windows registry. While the registry should of course be regularly backed-up, these details will be lost if Windows is re-installed. It is therefore recommended that all the site settings are regularly Exported from the registry into an text format INI file. This file may then be Imported later to restore the sites. The INI file may also be shared, but if you have entered member details such as a logon and password, beware of sharing these with others! Since the INI file is text, it may be manually edited to remove such private information.

Pressing the Export button displays a Save Export As dialog box, allowing a file name to be specified into which all site details will be exported.

Registration

CamCollect is shareware, developed by Magenta Systems Ltd, in England. CamCollect may be evaluated for 30 days, but must be registered if usage is to continue. Until registered, CamCollect is crippled so that all images will be overlaid with nag text.

There are various registration options:

Single Software License	£15 by credit card, including taxes
Single Software License	£15 by cheque, including taxes
Single Software License	\$25 by cheque, including taxes
Site Software License	£200 by credit card, excluding taxes

For users outside the UK paying by credit card, the total will be converted back into your local currency at the appropriate rate. At the time of writing, £15 is worth approximately \$25.

Registration must be done from within CamCollect, using the Registration form accessed from the Settings menu in the main Window. Once completed, the form may be automatically emailed, saved to the clipboard to be emailed from your own email client or printed to be snail mailed (posted).

Product/Version/Date

This information is defaulted by the application.

Full Name, Postal Address, Phone Number

The full name and postal address of the licensee. Each line of the address should be entered on a separate line, since this information will be used to post the receipt. If purchasing using a credit card, the name and address must be that of the card holder. A phone number may be required for credit card verification.

Email Address

It is essential this is completed correctly, otherwise you will never receive your registration information. When the Send Email Now option is used, you should receive an acknowledgement within 24 hours.

Comments

These lines are optional, but it would be useful to know where you heard about CamCollect or any comments for improvements in the software.

License Selection

The drop down menu gives various license options, as detailed at the top of this page. One extra option is New License Key for Existing Licensee which is used by existing licensees of CamCollect, to obtain a new license key after a re-installation or transfer to a new PC.

Order Number

This is required if a new license key is being requested. The Order Number came with the previous license key, and with the receipt for the license payment.

Credit Card Details

If paying by credit card, the details should be completed. Cards accepted are MasterCard, Access, EuroCard, VISA, Delta and Switch. The card number must be entered and will be checked for basic validity. The expiry date is also required, and for Switch only also the issue number. The credit card number is encrypted in the email for security.

Registration by Email

These details should not require changing, unless specifically requested by Magenta Systems.

Submitting the Registration Form

There are three button options to submit the completed Registration Form:

- | | |
|-----------------------------|---|
| Send Email Now | This option is the quickest and most reliable, but does require an internet connection. Clicking the button will cause the registration information to be sent my email to Magenta Systems Ltd immediately. The email message is identical to that in the 'save' option, but you will not receive a copy due to SMTP server restrictions. You should receive an acknowledgement within a few hours, and the registration details within a day. |
| Save Email to Clipboard | This option will save the form as an email message to the windows clipboard, allowing you to paste the text into your normal email package and send it as you do normally, keeping a copy. The email address is included in the text. Note that the information extracted from this form should not be edited in any way, otherwise the registration will be rejected. You should receive an acknowledgement within a few hours, and the registration details within a day. |
| Print for Snail Mail or Fax | This option will display a Print dialog box allowing the form to be printed. The postal address to which the form should be sent is printed on it, as is the fax number. Some people are unhappy about emailing credit card and address details, so fax is an alternative. If you are paying by cheque, this needs to be sent in the post, but it would be useful if you can also email the form to avoid it requiring manual keyboading. You should receive an acknowledgement within a few days or weeks depending upon the speed of postal delivery. |

Registration License Key

Once your registration is accepted, you will receive an email containing your Registration License Key and Order Number, both in the body of the email and as a small text file MIME attachment (`USERREG.TXT`), looking something like the following:

```
[CamCollect]
RegistrationKey: rZgVh0jOi0pXkcUwWeSytbuTo/E1607
OrderNumber: 000000
WinName: Angus Robertson
OrderDate: 1998/04/23
```

Accessing the License Key option from the Settings menu displays:

You can either copy/paste the Key into the Registration License Key field, and/or copy the small text file into the CamCollect directory and press 'Load from File' to do the same thing. Note that the key is not checked immediately after entry in a probably futile attempt to frustrate reverse engineering and cracking.

The License Key is only valid for the PC from which the form was completed. If you change PC, use the 'New License Key for Existing Licensee' option (with your original Order Number) to get a new key. Note

that your new PC must be installed with the same Windows Registered Name.

View/Edit Images Window

This windows may be accessed in various ways. From the Misc menu, the button or F8, an Open Image dialog will initially appear, before the View/Edit Images Window appears. From the Windows menus or F12, the View/Edit Images Window will appear with the last image or blank. By double clicking from the Web Cam Site Pictures Window, the current picture will be appear in the View/Edit Images Window.

The usual buttons and options are available to open images, save, save as and print. Images may be saved in different formats. The JPEG compression used will be that specified in Preferences.

View Menu

The two magnification buttons allow the image to be increased or decreased in size, by zooming in or out, F9 and F10 do the same thing. Two more buttons allow the next or previous images in the current directory to be viewed (also F8 and F7), while Slide Show automates showing images in the directory, with a one second delay between images - clicking an button will stop the show.

Operation Menu

The Operations menu and right click menus provide a number of image editing and manipulation functions:

Some of these options require a selection to first be made using the left mouse button. Note that all functions may be undone.

Crop

Allows a part of the image to extracted, either to replace the old image (save) or as a new image (save as). The area is selected by moving the mouse to the top left position, hold down the left mouse button and move to the lower right position. The selection box may then be moved around by holding down the left button again. Finally, take the Crop option from the menu and save the image.

Add Text

When the option is taken, a dialog allows some text to be entered. Once OK is pressed, the dialog disappears and the next mouse double click will place the next onto the image, in the font and colour specified through the Set Text Font option. If the text looks wrong or bleeds off the edge of the image, use Undo and try again.

Set Text Font

Displays a Font Dialog allowing the style, size and colour of the font used for adding text to images to be selected.

Add Border

When selected, a narrow border will be added around the image, in the colour specified through Set Border Colour.

Set Border Colour

Displays a Colour Dialog allowing the border colour to be specified.

Brightness, Contrast, Gamma...

Displays a dialog similar to the following:

A thumbnail of the image is shown, which changes as the sliders are adjusted to reflect the new brightness, contrast and gamma levels. It is suggest that gamma is adjusted first, usually lowered which will enhance the darker parts of the image but leave brighter parts alone.

Red, Green, Blue..

Displays a dialog allowing the primary colours red, green and blue in the image to be adjusted.

Cyan, Magenta, Yellow..

Displays a dialog allowing the secondary colours cyan, magenta and yellow in the image to be adjusted.

Luminosity, Blue, Red..

Displays a dialog allowing the native JPEG colour scheme of luminosity (brightness), blue and red in the image to be adjusted.

Hue, Luminosity, Saturation...

Displays a dialog allowing the hue, luminosity (brightness) and saturation (colour fullness) in the image to be adjusted.

Hue, Saturation, Value

Displays a dialog allowing the hue, saturation (colour fullness) and value in the image to be adjusted.

Grayscale

Displays a dialog allowing all colour information in the image to be removed, so it becomes grayscale.

Negative...

Displays a dialog allowing the colours in the image to be reversed.

Sharpen...

Displays a dialog allowing the image to be sharpened.

Detail...

Displays a dialog allowing detail in the image to be enhanced.

Smooth...

Displays a dialog allowing the image to be smoothed.

Blur...

Displays a dialog allowing the blurred (heavy smoothing).

Contour...

Displays a dialog allowing contours in the image to be emphasised for effect.

Possible Future Enhancements

- Maintain a list of saved images to see what's just been missed.
- Creation of movies from saved images.
- Improved image editing functionality.
- Creation of thumbnail pages for archives.
- Scheduled connections for unattended usage
- Saving log and debug files to disk.
- Server push, continuous pictures

Please do not ask for delivery dates for these enhancements, but suggestions for priority may be taken into account.

Known Problems and Bugs

None.

Acknowledgements

Firstly, thanks to all those around that world that use web cams to share their lives via the internet, mostly at their own expense.

Secondly, to Borland (now known as Inprise) for the Delphi development tool used for CamCollect, and to all those that share their Delphi components (code) with others to speed application development.

CamCollect makes use of two excellent Delphi components:

Internet Component Suite from François Piette, <http://www.rtfm.be/fpiette/indexuk.htm>

PixelGraphicLibrary from Peter Beyersdorf, <http://www.beyersdorf.com/>

Release Notes

- 1.0 First public release
- 1.0a Improved error handling when attempting to display more than the maximum number of displayable images.

Increased maximum number of displayable images from 32 to 50.
- 1.0b If you are lucky enough to have more than 4 Gbytes of free disk space, regular error dialogs no longer appear

A cosmetic error that truncated a license expiry date has been corrected

If unexpected image colour depths are found, a warning dialog is no longer displayed
- 1.0c In preferences, the connection user name and password are no longer stored by CamCollect, but instead access the same details used by other applications from the 'phone book'

CamCollect may now be used on PCs without DUN or RAS installed (but connected to a LAN instead)

A DUN/RAS auto log-off period may now be specified in preferences. This is effective even if the connection was not started in CamCollect. Once the specified minutes expire, a dialog and noises give a further two minute warning, before the automatic disconnection

Only one session per site is now allowed, to avoid multiple sessions to slow sites

The file save time and caption time are now adjusted for the actual created picture time, rather than downloaded time. Note that this time may still differ from site captions due to clock differences
- 1.0d The View/Edit Images window now has three new buttons to ease viewing images. Next Image and Previous Image display the next and previous images in the current directory, while Slide Show automates display of next images with a one second delay between images.

The help file distributed in the install archive is no longer illustrated to save space. The illustrated version may still be downloaded from the support web site.
- 1.0e Preferences now includes a field allowing a WAV sound file to be played when new images

are displayed, instead of a system beep.

Handling of errors during RAS connections have been improved.

A couple of problems with the registration system have been fixed.

- 1.1a The default sites included with CamCollect no longer include any with nudity.

If an error occurs starting DUN for 'All Sites Once', collection now stops immediately.

The last character no longer truncates when displaying disk space remaining of more than 1,000 Mbytes.

- 1.1b A configurable download timeout has been added to Program Preferences so that slow sites do not stop collection from other sites or stop further collections from the same site.

A further Program Preference allows download file size errors to be ignored, although such pictures maybe corrupted.

When adding sites the caption mask is now correctly defaulted with the site name.

It is now possible to export an unlimited number of sites, exceeding the previous 64 Kbyte limit of an INI file. Note that import still has a 64 Kbyte limit, but the file can be split in half to get around this. Export is also very much faster. Import will be improved in a forthcoming release.

Copyright Information and Support

CamCollect is copyright Magenta Systems Ltd, England, 1998.

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There is also a support conference on the CIX conferencing system, cix:webcams. Information on joining CIX may be found at <http://www.cix.co.uk/>

