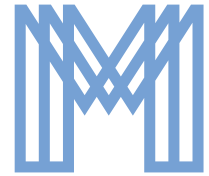


eFilm™

Support Guide



M E R G E
e F I L M

eFilm™ 2.0 Support Guide

Version 1

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This guide has been produced to assist in providing instruction for the Merge eFilm product suite. Every effort has been made to make the information in this guide as accurate as possible. The authors of Merge eFilm shall have neither liability nor responsibility to any person or entity with respect to any loss or damages in connection with or arising from the information contained in this guide.

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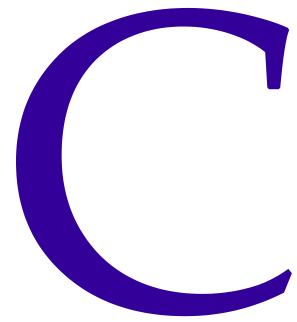


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Merge eFilm Support

1

Thank you for choosing Merge eFilm as your medical imaging solution. This support guide provides information on the range of services available to Merge eFilm customers.

Merge eFilm is committed to providing highly skilled and reliable customer service when and where it is needed. Our support team is comprised of individuals with strong technical skills, excellent communication skills, and experience with Merge eFilm products in healthcare environments. Work environments are rapidly changing. Each of our customers operates in an environment with unique configurations and distinct imaging demands. Rest assured that the level of service that your environment demands is available.

Merge eFilm offers a variety of different resources designed to help you make the most of your digital imaging software. Depending on the nature of your issue, assistance can be obtained through email support, telephone support, dial-in support, on-site support, software help files, or online discussion groups.

This document covers the supportability of eFilm, and other Merge eFilm products. It shows you how to:

- install eFilm (see [“Support packages”](#) on page 7)
- start eFilm (see [“Starting eFilm”](#) on page 2)
- register eFilm (see [“Registering eFilm”](#) on page 3)
- configure eFilm (see [“Configuring eFilm”](#) on page 6)

This document also offers an overview of:

- support packages (see [“Support packages”](#) on page 7)
- product maintenance and upgrades (see [“Product maintenance and upgrades”](#) on page 8)
- call management procedures (see [“Call management procedures”](#) on page 8)
- workflow solutions (see [“Workflow solutions”](#) on page 9)
- training courses (see [“Training courses”](#) on page 10)
- professional services (see [“Professional services”](#) on page 11)
- limitation to support services (see [“Limitation to support services”](#) on page 11)
- additional support (see [“Additional support”](#) on page 13)

Installing eFilm

Follow the installation instructions provided in the Installation Wizard.

Note: Ensure that the system requirements outlined in “[Hardware and operating system requirements](#)” on page 12 are met prior to installing eFilm.

To install eFilm from the CD:

1. Insert the eFilm CD in the CD-ROM drive. If you do not have Autorun enabled, navigate to your CD-ROM drive and double-click **setup.exe**.

Note: You must be logged in to the computer as an administrator to install eFilm.

2. Follow the installation instructions in the Installation Wizard.

Note: This software cannot be installed to a directory path longer than 220 characters.

3. Before you can send/retrieve images via DICOM, you will need to assign a unique AE Title to the workstation. This information identifies the machine as a DICOM Application Entity (AE).
4. Once the installation is complete and you have restarted your computer, you will have to decide whether to register eFilm right away, or evaluate it for a thirty-day period.

Important: When you restart the machine, you must login again as the same user who installed eFilm, or at least someone with administrative rights on the machine.

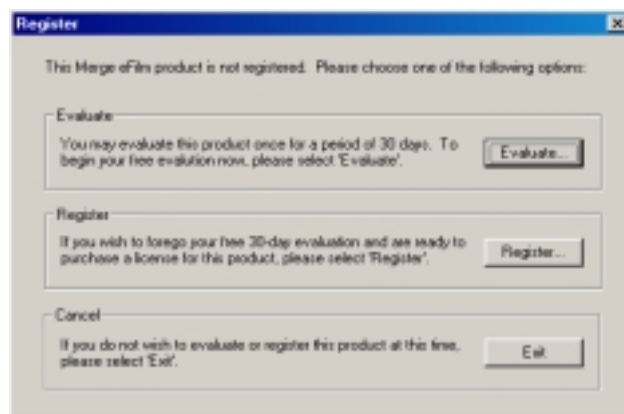
Starting eFilm

You can start eFilm either from the desktop or through the Start menu.

To start eFilm:

- Double-click the **eFilm** icon on your desktop
- Navigate to **Start > Programs > Merge eFilm > eFilm > eFilm**

The first time you start the application, the Register dialog box will appear, prompting you to register eFilm.

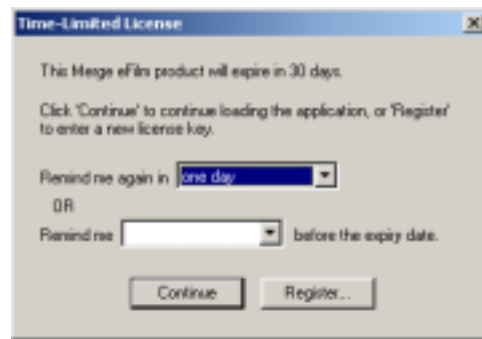


Note: If you do not want to register at this time, you can choose to evaluate eFilm for thirty days by clicking **Evaluate**. Once the evaluation period has ended, you must register eFilm to continue using the application (see “[Registering eFilm](#)” on page 3).

Registering eFilm

You must register eFilm within thirty days from when you began to evaluate the application. There is a fee for registering eFilm. Refer to the Merge eFilm Web site at www.merge-eFilm.com for current prices. Registering eFilm gives you the right to use eFilm, and entitles you to support and upgrades for a specified period of time.

Note: Unless you have registered for an unlimited license version of eFilm, the Time-Limited License dialog box will appear when you initially start the application.

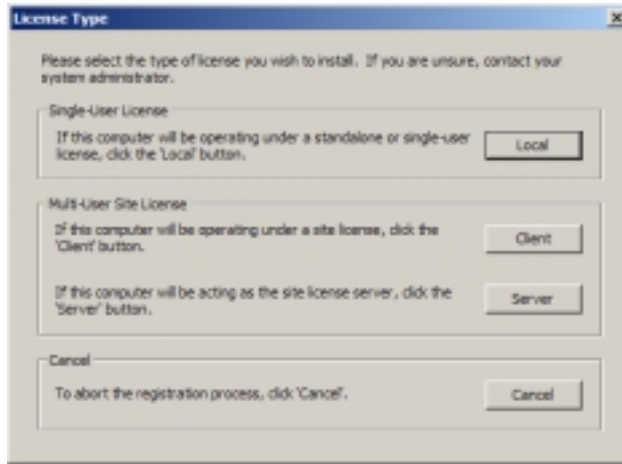


You can select either **one day**, **one week**, or **one month** from the **Remind me again in** drop-down list or **one day** or **one week** from the **Remind me ___ before the expiry date** drop-down list, and click **Continue**. This reminder will only reappear depending on your selection, except for the final day of your license period, where it will open every time you start eFilm.

Important: Access to orthopaedic templates, hanging protocols, and key images is license-limited and access to the latter two is only available when using eFilm in conjunction with a Merge eFilm PACS solution, such as Fusion PACS, or an authorized Merge eFilm partner PACS solution. Multilingual versions of eFilm are also licensed separately. You can enable these features when you purchase your license; otherwise, functionality of these features will be unavailable. Contact Merge eFilm Customer Service for details (see [Appendix A, “Contacting Merge eFilm”](#)).

To register eFilm:

1. Click **Register**. The License Type dialog box appears.



2. Choose one of the following license types:
 - **Local:** installs a standalone license, which can only be used on the computer on which the license is installed and cannot be shared by network users on different machines.
 - **Client:** the computer will operate under a site license (set up under the **Server** option). A site license is a shared license stored on a central computer that other users can access as clients.

Note: Selecting **Client** opens the Browse for Folder dialog box, where you must navigate to the shared '**License**' folder on the license server. Once you click **OK**, you may also browse to the shared '**License**' folder on an optional secondary (backup) license server, if your institution has one. If not, click **Cancel**.

- **Server:** the computer will operate as the site license server. This server will host the site license and must be accessible to all client workstations (set up under the **Client** option), which means the server's '**License**' folder must be shared with full read and write access for everyone. A license server may host either a primary or secondary site license. A secondary license server acts as a backup to the primary server in case the primary server is down.

Note: Keep in mind the following points when setting up a site license.

- Each server must have eFilm installed on it in order to set up a server license. The '**License**' folder in the eFilm installation directory must then be shared with full read/write access for everyone.
- You are not required to set up client machines with a license key as they simply share the server's license. Any eFilm features that the license server allows access to will also be available to client workstations.
- The clock application named `SlsClock.exe` must be running on both the primary and secondary license servers at all times. If not, clients will not be able to use the server, and will be prompted with a message informing the user that the clock utility is not running on the license server that they are trying to access. Note that once a machine has been set up as a license server, a shortcut to `SlsClock.exe` will be added to the **Startup** folder in the Windows Start menu, so that it will be launched automatically whenever the machine is rebooted.

- Server licenses' have a *Concurrent User Limit* — only “x” number of clients can use a server license at one time. This value is set when the license is purchased.
- When you purchase a site license, you will be asked to provide two reference codes — one from your primary license server, and another from your optional secondary server. You will then be issued one or two license keys (depending on whether or not you provided a secondary reference code), one for each server.

If you selected either **Local** or **Server**, the License Key dialog box appears.



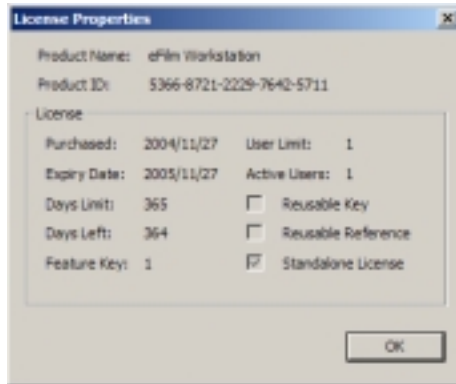
3. Please submit your reference code to a Merge eFilm sales representative by phone, fax or email (see [Appendix A, “Contacting Merge eFilm”](#)).

Upon confirmation of payment, a Merge eFilm sales representative will provide you with the license key that matches your unique reference code. When entered, this key will enable you to use the application beyond the evaluation period. Please record this key for future reference.

Important: Your license key will work for only one software installation, unless it is a site license.

To view your license properties:

- On the **Help** menu, click **View License**. The License Properties dialog box appears, displaying your license properties.



To change your license:

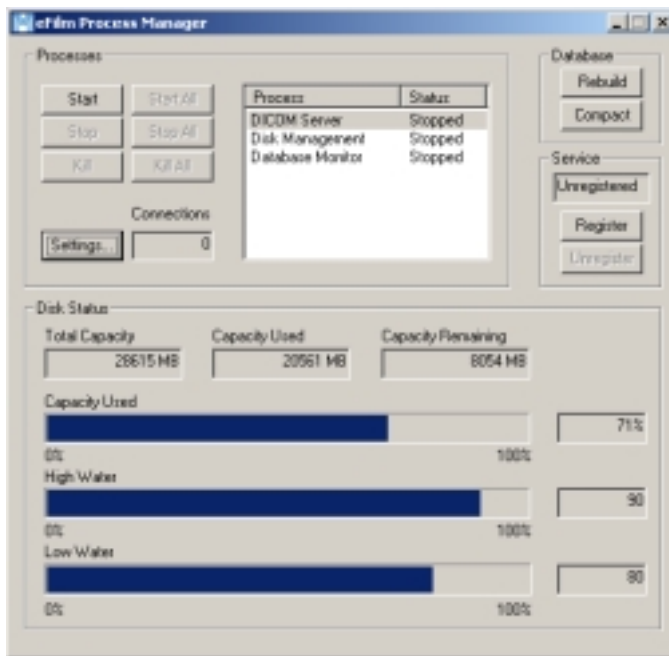
- On the **Help** menu, click **Change License**, and then follow the procedure outlined in [“Registering eFilm”](#) on page 3.

Configuring eFilm

After installing eFilm, you must configure the Process Manager.

To configure the Process Manager:

1. From the desktop, navigate to **Start > Programs > Merge eFilm > eFilm Workstation > Process Manager**. The eFilm Process Manager window appears.



The Service box serves as the parent process that kick-starts the background child Processes, and monitors their status. The parent service should be registered. If not, click **Register**.

Note: If a service is unregistered, then eFilm processes will not automatically start up when you reboot your computer; these must be restarted manually.

The following three processes run in the background:

- **DICOM Server:** The DICOM Server provides all DICOM network functions, such as receiving images, and should always be running.
- **Disk Management:** This process frees up disk space by deleting studies according to an LRU (Least Recently Used) criteria.
- **Database Monitor:** The Database Monitor periodically compacts and repairs the local database. You may compact the database manually by clicking Compact in the Database box. Manual compaction under Windows NT, 2000 and XP requires administrator privileges.

Note: Clicking **Start**, **Stop** or **Kill** performs these respective actions upon the selected process(es). **Start All**, **Stop All**, or **Kill All** performs these actions on all processes. In fact, executing these commands will cause the service to start, stop, or be killed (respectively), along with all of its processes.

2. If any of the processes are hung and are not responding, click **Kill** or **Kill All** to terminate them.
3. Click **Settings** to change any of the default Process Manager settings.

Note: For more information on configuring specific processes, refer to the eFilm Help file.

Support packages

Merge eFilm offers a variety of different support packages, which are carefully designed to accommodate each institution's unique needs. If at any time your needs should change, feel free to contact us for either emergency support or to upgrade your current subscription.

Component	Bronze	Silver	Gold
New Releases and Documentation	x	x	x
Service Packs	x	x	x
Maintenance Releases	x	x	x
"Known Issue" Alerts	x	x	x
Standard Office Hour Telephone Support (08:00-16:00 EST)	x	x	x
Standard Office Hour Email Support (08:00-16:00 EST)	x	x	x
Online Support	x	x	x

Component	Bronze	Silver	Gold
Extended Telephone Support (16:00-00:00 EST)		x	x
Dial-in Service		x	x
24 Hour Telephone Support			x
Onsite Support	optional	optional	optional
Training	optional	optional	optional

Emergency support

We recognize that it can be difficult to predict what your support demands will be. Emergency support for all of Merge eFilm's products is available 24 hours/day (based on hourly rates, charges may apply).

Product maintenance and upgrades

With a subscription to a Merge eFilm Support Package, customers are entitled to a range of different software updates. From added functionality (e.g., new tools) to bug fixes, Merge eFilm is continuously working to improve our applications. Updates may be distributed as:

- **New Releases:** indicated by a change in the first two digits of the software version number (e.g., from 1.7 to 1.8). A **New Release** may be characterized by the introduction of new major functionality or significant performance enhancements.
- **Service Packs (Software Revisions):** indicated by a change in the 100th decimal portion of the version number (e.g., from 1.7.0 to 1.7.1). A **Service Pack** may include bug fixes, improvements, and/or product maintenance.

Software installation

It is the customer's responsibility to obtain and install the latest release made available by Merge eFilm according to the instructions provided. If Merge eFilm support personnel are required onsite, additional arrangements can be made in the service and support contract. New releases and service packs are made available via web download, FTP server, CD, or by other means to be determined by Merge eFilm.

Call management procedures

At Merge eFilm, it is our goal to answer customer contacts as soon as possible. In the event that this is not possible, a Merge eFilm Support Center Technician will return your call.

Cases are managed and resolved according to the following procedure:

1. A customer contacts the Merge eFilm Support Center, provides the technician with a customer ID (and/or Service Request number for ongoing cases), and describes the issue.
2. A Service Request number is assigned to the issue. This number serves as a reference for a particular case throughout resolution and closeout.

3. If a case cannot be immediately resolved, it is assigned to a Technical Representative or Product Specialist for further diagnosis and resolution.
4. Cases are escalated based on technical difficulty and/or resolution time.
5. Cases are closed upon customer approval of the resolution.

Note: If at any time you are unsatisfied with the responsiveness or quality of the support you receive, please ask the technician to have your case escalated.

At Merge eFilm, issues are classified based on the category of the problem and severity of the impact. The impact is ultimately gauged by the effect on patient care. The following list describes each priority in terms of severity:

- **Priority 1:** Situations where the user is unable to use the application and/or is experiencing loss of critical functionality. The impact is immediate and no workaround exists. Operations cannot continue.
- **Priority 2:** Issues that restrict use of the application, such that important functions are not available. The impact is significant, but a workaround may exist. Operations can continue, but are restricted.
- **Priority 3:** Issues do not prevent users from running the application, but some functionality is limited. Critical functions are intact, but incorrect behavior or errors are detected. The impact is minor and operations can continue.
- **Priority 4:** Issues include questions, requests and suggestions. The impact is minimal and operations can continue.
- **Software Defects:** On-going software malfunctions (classified as “bugs” or “defects”) are resolved by the Merge eFilm Development Team. Bug and defect fixes are distributed by way of service packs or are incorporated into new releases. In the event of a Priority 1 or 2 issue, service packs may be distributed between scheduled releases. Refer to [“Product maintenance and upgrades”](#) on page 8 for more details.

Workflow solutions

Workflow solutions for medical imaging are available with the following Merge eFilm products, which offer accessible, reliable and affordable software for the entire health care enterprise.

eFilm Workstation™ - The premier diagnostic, image and manipulation tool for medical imaging. With eFilm Workstation, you can examine multiple studies simultaneously, cross-reference, measure, rotate, pan, zoom, and annotate in an all-in-one application. Designed by and for clinicians with enhanced 3D/MIP, MPR, and Measurement Tools, eFilm Workstation is designed to accelerate clinical diagnostic workstation productivity.

Fusion eFilm™ - The premier diagnostic, image and manipulation tool for medical imaging. With eFilm Workstation, you can examine multiple studies simultaneously, cross-reference, measure, rotate, pan, zoom, and annotate in an all-in-one application. Designed by and for clinicians with enhanced 3D/MIP, MPR, and Measurement Tools, eFilm Workstation is designed to accelerate clinical diagnostic workstation productivity.

eFilm Scan™ - Hard copy films can be integrated into a PACS with film digitizers and software. eFilm Scan features automatic image segmentation and DICOM Modality Worklist capability.

eFilm Ortho™ - Without film, orthopaedic surgeons are unable to size prosthetic implants in the manner they are used to with acetate overlays. eFilm Ortho is an add-in module for eFilm that allows interactive positioning and sizing of digital prosthetic templates.

eFilm Video™ - Still images and video streams can be captured from older non-DICOM compliant imaging equipment and made DICOM compliant with eFilm Video. DICOM Modality Worklist capability ensures consistent, reliable patient information.

FUSION Workflow™ - FUSION Workflow is a scaleable architecture that reduces operating costs and allows efficient image storage. Mirrored network attached storage guarantees redundancy and consistent image access. Image Channel compression technology also makes FUSION Workflow a fast PACS/teleradiology solution.

FUSION RIS™ - Allows clients to realize substantial improvements in productivity by integrating information and automating manual or paper processes related to radiology workflow such as patient registration; patient/exam tracking; scheduling; mammography tracking; technologist, radiologist and transcriptionist worklist management; dictation; report turnaround; billing; claims processing and analysis. This automation reduces administrative workload, while increasing patient, referring physician and employee satisfaction.

FUSION PACS™ - An integrated repository of healthcare information and a suite of software application modules that accelerate productivity by integrating images and information and managing the workflow from order entry through study interpretation and distribution of results. A scaleable and modular solution, FUSION PACS has interoperable modules that provide a phased deployment that grows with your functional and business needs.

FUSION RIS/PACS™ - An integrated single-desk system, which unifies RIS, PACS, Dictation, Document Management, Billing, Practice Analysis and Referring Physician Practice workflow. FUSION RIS/PACS distributes images and information in ways designed to accelerate productivity, improve profitability and increase the quality of patient care.

Note: For the latest product listings and news, visit www.merge-efilm.com.

Training courses

Currently, only tailored instruction programs are available to suit all of your digital medical imaging needs. Whether your institution demands in-house education series or one-on-one assistance, Merge eFilm can help you obtain the skills and knowledge set required for today and beyond.

Merge eFilm will offer various courses tailored for those requiring comprehensive end user training, as well as in depth Technical Support training for all products at some point in the near future. These training courses may include seminars, course materials, hands-on practice sessions, and certification exams. Standard course offerings will provide individual attention through small class sizes (2-4 participants).

Booking details

Please contact the Merge eFilm Customer Support Center to discuss your requirements, the options available, scheduling, and course locations. In order to maximize the value of training sessions, the following information must be provided a minimum of two weeks prior to scheduled events:

- Objective for the training.
- Background on participants (i.e., roles, specialties, etc).
- Knowledge level of the participants.
- Specific areas of interest.
- Number of participants.

Professional services

From design through installation and support, Merge eFilm Professional Service is dedicated to optimizing the performance of your FUSION solution. Our goals are to:

- Deliver FUSION solution functionality and value.
- Ensure consistent and continuous FUSION solution performance and reliability.
- Maximize radiology productivity and clinical information quality.
- Partner with our customers to foster teamwork and efficient communication to ensure timely issue resolution.

Throughout the implementation process, your FUSION Project Team (FPT) is responsible for managing the implementation tasks and working with you to understand the process and action items. The FPT will transition your system to Merge eFilm Technical Support during the Go-live activities.

The implementation process can differ for each customer and will vary based upon the FUSION modules included within your solution. Our methodology is designed to spend time up-front to accomplish an efficient and smooth implementation. We strive to be proactive, to surface the issues early in the process, and manage them to conclusion. Our program is designed to minimize the learning curve usually associated with the implementation of a new system.

Limitation to support services

1. Customers are responsible for ensuring that all machines running a Merge eFilm Product meet our published minimum hardware and operating system requirements. Merge eFilm does not support the operation of any of its products on computers that are equipped with less than the published minimum hardware and operating system requirements.
2. Customers are responsible for issues that arise from other vendors' software and/or hardware and/or network configuration that may interact with Merge eFilm products. Merge eFilm does not provide support for any issues that arise from other vendors' software and/or hardware and/or network configuration issues.
3. Customers are responsible for installing and updating all Merge eFilm products. Merge eFilm will only support customers using current versions of Merge eFilm software (i.e., in use within two months of release).

Note: If you have any questions, contact our Support staff at support@merge-efilm.com.

Hardware and operating system requirements

This section lists the hardware and operating system requirements for eFilm and its associated modules.

Note: Increased RAM and an upgraded CPU will result in substantial performance gains.

eFilm must be run on a computer that meets the following hardware requirements:

- Pentium II-class processor
- 512 MB RAM
- 4 GB free hard drive space (1 GB for installing eFilm and 3 GB for image storage)
- Minimum display resolution 1024 x 768 with 16 bit/high color
- A video display adapter with 128 MB of video RAM that fully supports DirectX 8.1 or later.

When choosing computer hardware, users should note that the most substantial performance gains result when RAM is increased. In order to prevent poor performance of the software, Merge eFilm does not recommend that eFilm be run on a less powerful system than that listed above. Hard drive space should be added as image storage requirements increase.

eFilm requires the following software programs and operating systems in order to operate properly:

- Windows 98 SE, NT 4.0 (Service Pack 4), Windows 2000, Windows XP Professional.

Note: Windows 95 is no longer supported by Merge eFilm. To ensure optimal performance, it is advisable that you upgrade your operating system to Windows XP before you install eFilm.

- Microsoft Internet Explorer (IE) 5.5 or higher.

You can install eFilm Video on any computer that meets these hardware specifications:

- Pentium II-class processor.
- 128 MB RAM.
- 1 GB of free hard disk space for installation.
- Data transfer: The higher the desired video quality, the higher the required data transfer rate of the hard disk. For S-Video quality 2MB/sec of data must be transferred, for high S-Video quality approximately 3-4 MB/sec. The data transfer rate of a computer hard disk has to be approximately 50% higher than the data rate for video capturing.
- Hard disk capacity: For capturing video, a hard disk with sufficient capacity is needed. For example, when capturing, S-Video approximately 120-200 MB per minute have to be saved.
- ATI All In Wonder Radeon Video Capture Card (16 bit).

You can install eFilm Video on any computer that meets these operating system specifications:

- Windows 2000.
- Microsoft Internet Explorer (IE) 5 or 6.
- DirectX 8.0.

Refer to the product help files and/or the Merge eFilm website at www.merge-efilm.com for the most up-to-date product requirements.

Additional support

Dial-up access

Dial-up access allows Merge eFilm Technicians to provide you with Virtual Onsite Support from our Call Center. Often speeding up support calls, dial-up access allows qualified professionals to directly examine, diagnose and remedy any issues; it can be an important part of your support solution. Refer to “[Support packages](#)” on page 7 to see if you qualify for dial-up access.

Note: Customers subscribing to gold or silver support packages with dial-up access support are responsible for obtaining and configuring dial-up access software. All software solutions must be pre-approved by Merge eFilm. In most cases, dial-up access must be arranged through a system administrator who has knowledge of firewall specifications.

Help files

When an issue arises with the operation of your software, the fastest way to resolution may be found in help files. All products have help files which provide up-to-date information on tools and functions. Help files can be easily searched and are a great place to begin to answer support questions.

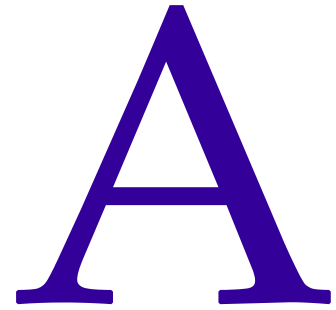
Online support

Merge eFilm’s online support is a growing resource designed to meet all of your software requirements. Visit www.merge-efilm.com to examine the latest news releases, access PDF downloads, participate in discussion groups, and provide feedback.

Printed documentation

You can order printed copies of the eFilm User Guide from www.vervante.com.

Contacting Merge eFilm



If the procedures in this manual do not help you solve the problem, or the symptoms you are experiencing do not appear in this manual, contact Merge eFilm for assistance.

USA

1126 South 70th Street
Milwaukee, WI 53214-3151 USA
Tel: 414-977-4100
Toll Free: 1-877-741-5369
FAX: 414-977-4200
email: support@merge-efilm.com

Canada

522 University Avenue
10th Floor
Toronto, Ontario CANADA
M5G 1W7
Tel: 1-416-204-9355
Toll Free: 1-877-741-5369
FAX: 1-416-204-9442
email: support@merge-efilm.com

Europe

Spegelt 34
5674 CD Nuenen
The Netherlands
Tel: (31) (40) 2990773
FAX: (31)(40) 2906615
email: service_europe@merge-efilm.com

World Wide Web

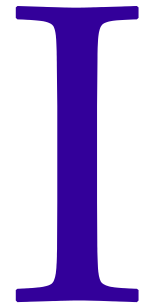
www.merge-efilm.com

Before you call

Before calling Merge eFilm for assistance, please prepare the following information:

- Site name and location
- System Administrator's name and contact information
- Detailed description of the problem
- Detailed description of troubleshooting attempts

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