TechSmith Relay™ (Self-Hosted)
Installation Guide

Version 4.4.0

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Installation Introduction

This document will help you to install the TechSmith Relay server software. When you run the installation application, the installer walks you through the installation steps on your server. This document is meant to provide supporting information to help you get through the installer and provide support with any installation tasks that are not covered in the installer.

While you are prompted to install most of the prerequisites during installation, depending on your actual server, the process to install these items may vary. This document contains links to resources that will assist you with various server configurations.

Topics Included in This Document

- Getting the Server Ready for Installation
- Server Planning
- Prerequisites for Installation
- Security Considerations for Installation
- Installation
- Server Configuration
- **Presenter Computer Planning**
- Related Documentation

Setup Options

The installer program will install the TechSmith Relay server software, which includes the website interface and the TechSmith Relay database. TechSmith Relay offers the following installation options:

- **Express setup**

  Use this option to set up the TechSmith Relay server, website, and database on this server. Express setup creates and uses a local SQL Server instance named "Relay."

- **Advanced setup**

  Use this option to:

  - Connect to a remote SQL Server instance to install the TechSmith Relay database.

    If TechSmith Relay is installed on a different server than SQL Server, the security policies on both servers must match. If the security policy differs between the two servers, you may encounter problems with installation.

  - Add an additional server to an existing TechSmith Relay server team.

  - Have more control over the setup process.

Getting the Server Ready for Installation

This section will help you plan for your TechSmith Relay installation. Read and consider the following prior to running the TechSmith Relay installer:

- ▶ Server Planning

  - ▪ Server Hardware

  - ▪ Important Server Considerations

  - ▪ Server Operating System

  - ▪ Administrator Website Access

- ▶ Prerequisites for Installation

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Server Planning

To install and run the TechSmith Relay server software, you will need a computer that meets the following requirements.

> TechSmith Relay may be run in a virtualized environment with the understanding that the CPU-intensive nature of transcodings makes it a good fit for a dedicated server. If given the necessary resources in a properly configured VM instance, it will work well. Running the TechSmith Relay server on an underpowered or multi-purpose VM is not recommended and will result in poor performance.

Server Hardware

The server specifications are based on the number of simultaneous encodings the server is licensed to process.

Minimum Server Specifications

	1 Encoding	3 Encodings	7 Encodings
Core:	2 CPUs	4 CPUs	8 CPUs
CPU:	2.0 GHz Pentium or equivalent	2.0 GHz Pentium or equivalent	2.0 GHz Pentium or equivalent
RAM:	2 GB	4 GB	8 GB
HD Space Free:	150 GB	250 GB	500 GB

> TechSmith Relay reserves one core for overhead processes which yields faster encodings and publishing overall. For example, if you use a quad-core server, TechSmith Relay can encode three simultaneous recordings. This achieves the fastest performance and is faster than if all four cores were dedicated to encoding recordings.

Recommended Server Specifications

	3 Encodings	7 Encodings
OS:	Windows Server 2012	Windows Server 2012
CPU:	2.4 GHz Pentium or equivalent	2.4 GHz Pentium or equivalent
RAM:	8 GB	16 GB
HD Space Free:	500 GB	1 TB
HD Config:	RAID-1 (mirrored)	RAID-1 (mirrored)

Important Server Considerations

The following items are important when you are planning your server hardware:

▶ You should begin with a fresh install of Windows Server, install all related Windows patches from http://update.microsoft.com and then install the TechSmith Relay server.

▶ TechSmith Relay is designed to run on a stand-alone server and not as an application on a multi-purpose server.

Other SQL Server installations or instances, additional websites, or other non-standard software or web applications installed on the server may cause problems with the communications between the TechSmith Relay recorder and server.

▶ You must have 150 GB + of hard disk space.

As a rough guideline, a one hour recording requires between 1-2 GB of space.

Unprocessed recordings consume disk space until they are published. After the final presentation is published, the original recording is deleted.

Presentations waiting for user interaction, such as presentations in the Held for Captioning or Needs Attention states, continue to consume space on the server until the presenter or an administrator releases the presentation and it is published.

▶ More processing cores mean more simultaneous encoding potential, and therefore, faster encoding and publishing; this potential is also dependent on the number of simultaneous encodings your server is licensed to process.

Server Operating System

The following server operating systems are supported:

> TechSmith Relay requires an English version of the server operating system.

▶ **Supported**
  ▪ Windows Server 2008 R2 (Full install, WOW64 required)

  ▪ Windows Server 2012 R2

  ▪ Windows Server 2012

Administrator Website Access

To access the TechSmith Relay website and interact with the TechSmith Relay server, administrators need one of the following web browsers:

▶ Internet Explorer 7 or higher

▶ Firefox 3.x or higher

▶ Safari 3.x or higher

▶ The current version of Chrome

Supported Versions for Plug-Ins

TechSmith Relay uses plug-ins to integrate with various publish destinations and notification servers. The following versions are currently supported:

▶ Notification servers:
  ▪ Blackboard Learn™ 9.1

  ▪ Moodle 1.9

- Moodle 2.0

▶ Publish destinations:
- Mediasite 5.5

- Drupal 6.1

- Microsoft® Windows® SharePoint™ 2010

Prerequisites for Installation

To save time during installation, install the following prerequisites prior to running the TechSmith Relay installer. Server prerequisites include the following:

▶ IIS

▶ SSL Certificate

▶ QuickTime

▶ Desktop Experience Feature

> If you do not set up these items before starting the TechSmith Relay installer, you are notified that they are not installed.

Resources for Prerequisites

Use the following links if you need assistance on installing a prerequisite:

IIS

▶ For Server 2008 or Server 2008 R2 (IIS 7.0 or 7.5): http://learn.iis.net/page.aspx/29/installing-iis-7-on-windows-server-2008-or-windows-server-2008-r2/

▶ For Server 2012 or Server 2012 R2 (IIS 8.0) http://iis.net/learn/get-started/whats-new-in-iis-8/installing-iis-8-on-windows-server-2012

▶ The Official Microsoft IIS Site: http://www.iis.net/

SSL Certificate

> The TechSmith Relay installer attempts to communicate with IIS over HTTPS to verify the certificate is properly installed. HTTPS bindings need to be set for the website you select in the installer. If HTTPS bindings are not set to use your SSL certificate, the installer does not allow you to install TechSmith Relay to that website.

▶ http://learn.iis.net/page.aspx/144/how-to-setup-ssl-on-iis-7 (IIS 7.0 and above)

QuickTime

You need to install QuickTime 7.7.3 (the latest at the time of this publication) or greater to process presentations recorded on Macintosh-based computers. TechSmith Relay does not provide the QuickTime codec.

If QuickTime version 7.7.3 (or later) is not detected, the installer prompts you to download and install Quick-Time. We recommend that you do not allow automatic updating of QuickTime on the TechSmith Relay server.

You can download QuickTime at http://www.apple.com/quicktime/download/.

Desktop Experience Feature

For information from Microsoft on the Desktop experience feature, which gives Windows Server many of the applications and features that are available in the Windows operating system, see http://-technet.microsoft.com/en-us/library/cc772567.aspx.

For Windows Server 2012 and 2012 R2, turn on the Desktop Experience from the Add Roles and Features Wizard > Features > User Interface and Infrastructures > Desktop Experience.

Security Considerations for Installation

When installing TechSmith Relay, if security considerations are configured incorrectly, they could cause issues during installation.

It is very important to consider the security of the environment hosting TechSmith Relay. You want to make sure that the TechSmith Relay server is as secure as possible against attacks. The following information is provided only to help avoid issues during installation.

More in-depth information on securing your TechSmith Relay server is available in the **TechSmith Relay Server Security Administrator Guide**. For information on where to locate this document, see Related Documentation and Support.

Required Ports

The following ports are always required for TechSmith Relay to work properly.

Component	Protocol	Ports	Direction
TechSmith Relay Web Application and Service	TCP	80, 443	Incoming
DNS	TCP/UDP	53	Outgoing
NTP	UDP	123	Outgoing

Additional ports may also be required by the operating system or other software (for example, port 1663 for Windows KMS activation.)

Conditional Ports

Depending upon the configuration of TechSmith Relay and the features enabled, you may need to open the following ports.

Feature	Protocol	Ports	Direction
Email Notification / SMTP	TCP	25 (default SMTP port) or Specified SMTP port	Outgoing
LDAP Authentication	TCP	389 (default LDAP port) or 636 (default LDAP SSL) or Specified LDAP port	Outgoing

- If email notification is enabled, the SMTP port specified in the SMTP configuration must be open (outgoing) between all TechSmith Relay servers and the designated SMTP server.
- If LDAP authentication is enabled, the LDAP port specified in LDAP configuration must be open (outgoing) between all TechSmith Relay servers and the designated LDAP server.

Local SQL Server

You do not need to open ports if TechSmith Relay uses an instance installed on the same machine. However, by default, TechSmith Relay attempts to connect using TCP/IP. If the appropriate firewall ports are not open

(see Remote SQL Server Ports then this connection fails).

To enable TechSmith Relay with restrictive firewall rules, change the TechSmith Relay server's configuration files:

➤ data.config (located in the Manager directory of TechSmith Relay's installation directory, typically
  `C:\Program Files\TechSmith\Relay Server\Manager\)`

➤ web.config (located in the Web directory of TechSmith Relay's installation directory, typically
  `C:\Program Files\TechSmith\Relay Server\Web\)`

For each of these files, do the following:

1. Open CONFIG in a text editor.
2. Find the connection string for the relay instance. For example:

```
<add name="RelayConnectionString" connectionString="Data
Source=<servername>\RELAY; Initial Catalog=Relay; User Id=r-
relay; Password=<password>; Pooling=True;" />
```

3. Change the server name to "(local)" and save the file.

Remote SQL Server Ports

If you are installing TechSmith Relay in a teaming configuration or need to use a remote SQL server, the security policies on the database server and TechSmith Relay server must match or there will be issues with installing and running TechSmith Relay.

To add a new TechSmith Relay server to a team or need to install TechSmith Relay to use a remote SQL server you must choose to either:

➤ Use Dynamic Ports / List SQL Server as an Exception (Recommended)

➤ Configure the database engine to use specific TCP/IP ports and open these ports on servers hosting TechSmith Relay and SQL server.

Use Dynamic Ports / List SQL Server as an Exception

By default, TechSmith Relay uses dynamic ports to access the named 'relay' instance. To continue to use dynamic ports you can list the SQL Server executable (`Sqlservr.exe`) and SQL Browser as exceptions to the blocked programs on the server hosting the database. Note that only one instance of SQL Server can be accessed in this way.

For information on how to add a Windows Firewall Exception and allow access to the SQL Server and SQL browser through the Windows firewall, see the following Microsoft support articles:

➤ Remote server ports: http://msdn.microsoft.com/en-us/library/ms175043(v=SQL.105).aspx

➤ Define specific ports: http://msdn.microsoft.com/en-us/library/ms177440(v=SQL.105).aspx

Firewall Rules Resources

▶ Service overview and network port requirements for the Windows Server system

http://support.microsoft.com/kb/832017

▶ Windows Firewall Center

http://technet.microsoft.com/en-us/network/bb545423.aspx

Passwords

Many of the components involved in hosting TechSmith Relay (including Windows Server accounts, SQL Server users, and TechSmith Relay accounts) rely on passwords for distinguishing authorized users from everyone else.

TechSmith Relay Administrator Account Password

This password is used for the "relayadmin" account (master user in the database) as well as the Relay instance in the SQL database.

> Remember this password! If you forget it and do not have other user accounts with administrator access to TechSmith Relay, you may have to uninstall and then reinstall TechSmith Relay. Delete the database when prompted by the server installer. You will lose all information including user accounts and profiles. If you are in this situation, please contact http://support.techsmith.com.

General Password Complexity Guidelines

All passwords, including those used in the installer, need to meet your organizations password complexity rules. Attackers commonly attempt to guess passwords to gain access to these systems as an authorized user. Furthermore these attacks are typically executed using automated scripts that try thousands of passwords, including common passwords, dictionary words, and random combinations of characters. One of the best defenses against password guessing attacks is the use of strong, or hard-to-guess, passwords. Strong passwords should:

▶ Be eight characters in length or more.

▶ Combine letters, numbers, and symbols.

▶ Not include words from the dictionary.

▶ Be different than your username or account name.

▶ Be different than passwords used for other systems.

For more suggestions and information on strong passwords, please see the article "Strong Passwords and Password Security" at http://www.microsoft.com/protect/yourself/password/create.mspx.

General Server Security Resources

- Windows Server 2008

    http://technet.microsoft.com/en-us/library/dd349801.aspx

- Windows Server 2008 Security Guide
    - http://technet.microsoft.com/en-us/library/cc264463.aspx

    - http://www.microsoft.com/downloads/details.aspx?familyid=FB8B981F-227C-4AF6-A44B-B115696A80AC&displaylang=en
- Windows Server 2008 Security Compliance Management Toolkit

    http://technet.microsoft.com/en-us/library/cc514539.aspx

Installation

Once all the prerequisite software is installed and set up on the server, you can install TechSmith Relay.

> After you complete installation, you may want to review the current known issues for TechSmith Relay. You can find the list of known issues in the TechSmith Support Center. At the time of publication, there are no known issues for TechSmith Relay.

See Also:

- Install the TechSmith Relay Server
- Add a Server to the Team
- Server Configuration
- **Presenter Computer Planning**

Install the TechSmith Relay Server

To install the server (or the first server in a team), use the following process. To add an additional server to a team, see Add a Server to the Team.

1. Download the correct installer for your server:
   - For 32-bit servers, use the TechSmith Relay 32-bit installer (`CamtasiaRelayServer.exe`)
   - For 64-bit server, use the TechSmith Relay 64-bit installer (`CamtasiaRelayServer_x64.exe`)
2. Copy the TechSmith Relay installer file to your server.
3. Run the TechSmith Relay server installer.
4. Follow the instructions in the installation wizard.

   The installer scans for prerequisite components and indicates which components you need to install. See Prerequisites for Installation for links to information about each item.

   - For more information about adding the server to an existing team of TechSmith Relay servers, see Add a Server to the Team.
5. When installation is complete, the TechSmith Relay website opens in a web browser. Log in as an administrator and complete Server Configuration.
6. If you are going to install and team additional servers to the one you just installed, create The Team Exported Settings File.

> If you have any issues during installation, you can Contact TechSmith Tech Support for assistance.

Add a Server to the Team

> When adding a server to the team, security policies on all teamed servers (and the server running SQL Server, if applicable) must match. If the security policy differs between the servers, you may encounter problems with installation.

In TechSmith Relay, you can team servers together to add power and flexibility to TechSmith Relay. Teaming servers means that they all accept presentations based on load and other variables. Once teamed, you work with the teamed servers as if they are one server. They all run from a single database, so all information is available on each of the teamed servers.

> On any of the servers, go to **System > Servers** to view all teamed servers' status and job counts.

After you install the first TechSmith Relay server and database, to add another server to the team use the following process:

1. If you are using a network firewall and have not yet done so, open TCP port 1433 and UDP port 1434 to connect to the database. If using a host-based firewall such as Windows firewall then add exceptions for the SQL Server and SQL Browser executables. For more information, see Remote SQL Server Ports.
2. Double-click the TechSmith Relay server installer.
3. When you get to the Select Setup Type page of the wizard, select **Advanced setup** and click **Next**.
4. On the Select Advanced Installation Type page, select **Add this server to an existing TechSmith Relay team** and click **Next**.
5. Install prerequisites and click **Next**.
6. On the SQL Server Connection page, enter or browse to the SQL instance name in use for TechSmith Relay. Enter the "Relay" user password and click **Next**.
7. On the TechSmith Relay Team Exported Setting File page, browse to the TechSmith Relay Team Exported Settings file and click **Next**. See The Team Exported Settings File for information on how to create this file.
8. Complete the wizard and click **Install**.
9. When installation is complete, the website opens in a web browser. Log in as an administrator and complete Server Configuration.

The Team Exported Settings File

When adding a new TechSmith Relay server to a team, the installer prompts for a TechSmith Relay Team Exported Settings file.

The TechSmith Relay Team Exported Settings file is an XML file containing the private encryption key used by the existing team members. This XML file can be created using the TechSmith Relay Configuration Protection Tool.

To create and use the TechSmith Relay Team Exported Settings file:

1. Access an existing team member that has the correct encryption key installed.

   The configuration protection tool (`ConfigurationProtectionTool.exe`) is located in the Manager directory of the TechSmith Relay installation directory (`C:\Program Files\TechSmith\Relay Server\Manager` by default.)

2. Launch the configuration protection tool by double-clicking `ConfigurationProtectionTool.exe`.

   The configuration protection tool (CPT) attempts to find TechSmith Relay's CONFIG files in the specified installation directory (initially based on where the tool was launched from.)

   The status window shows an error message if CPT is unable to find the .CONFIG files. If this happens, the installation directory must be corrected before any other action can be taken.

3. If needed, type in or browse to the correct install location.
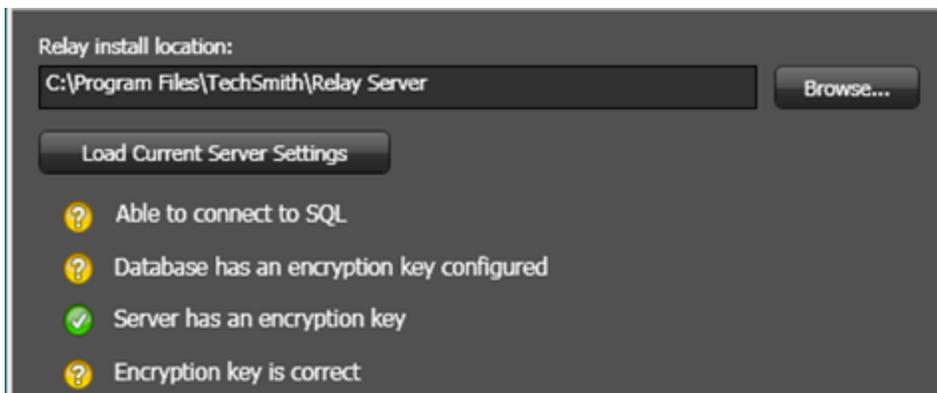
4. Click **Load Current Server Settings**.

   The CPT checks the registry and several database values to determine whether or not the server has the correct encryption key. The status icons are updated and should all change to green.
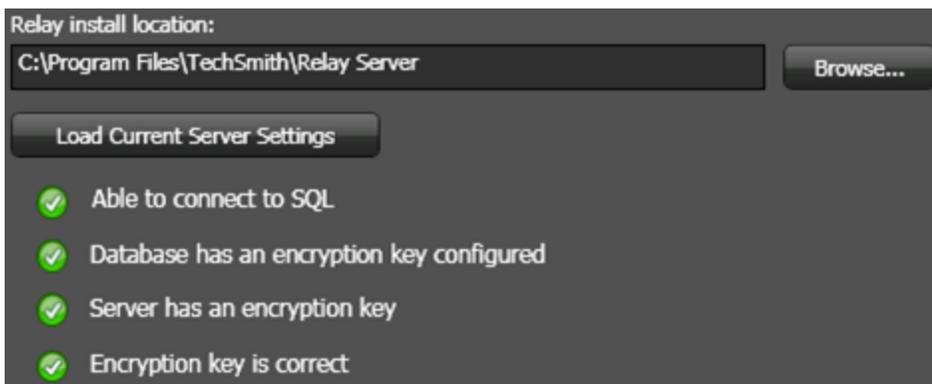
5. Click the **Import / Export** tab and click **Export Settings to File**. Choose a location and filename for the file.
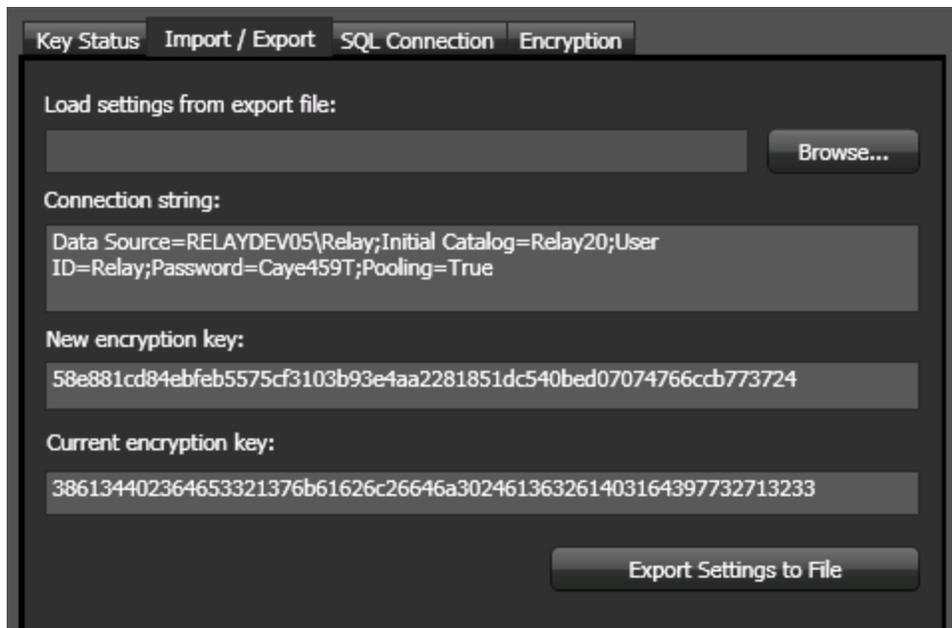
6. Copy the file onto the new server you want to add to the team.
7. Browse to the XML file when prompted during the install process on the TechSmith Relay Team Exported Settings File page of the installer.

You can find additional information about the Team Exported Settings File in the **TechSmith Relay Server Security Administrator Guide**. For information on where to locate this document, see Related Documentation and Support.

Server Configuration

When the install completes, log in to the TechSmith Relay website with the "relayadmin" account. You now need to configure the server.

Email Server Configuration

When you first log in, you are directed to a page to configure the email server. TechSmith Relay can send two types of email notifications:

▶ Notifications for published presentations

These notifications are sent to presenters, administrators, and/or viewers when presentations are published. These need to be set up and then included in the profile used to process the presentation.

▶ Notifications from the TechSmith Relay system

These administrative messages are sent from the system and notify TechSmith Relay presenters of server and presentation problems, such as: presentations needing attention, password changes, etc.

The email server configuration includes:

▶ The SMTP email server address.

▶ The SMTP email server port.

▶ The email address that appears in the Reply To field of email notifications.

▶ The email address of the TechSmith Relay administrator. This email address receives notifications from the server when action is needed from an administrator.

Skip Email Server Configuration

If you do not know the email server address during initial configuration, uncheck the Enable Email Notifications option to skip this step.

To enter the email server information later, go to: Profiles > Notification Server Configuration > Email Server tab. This allows notifications for published presentations to be sent.

To turn on system notifications, go to System > System Options > Email Notifications, check the Enable email notifications option, and click Save.

Configuration Steps

Next, you see the Important Configuration Steps:

1. Define publish destinations
2. Set up notifications
3. Create profiles

You can find more information about all of these steps in the help on the TechSmith Relay website and click the Configuration of TechSmith Relay link on the System page.

Related Documentation and Support

We hope you have found this Installation Guide helpful, but it is only one of many resources available to you as a user of TechSmith Relay. The following are some additional resources for TechSmith Relay.

Feedback

If you would like to offer feedback on or suggestions of topics to cover in this or any other TechSmith Relay documentation, please send an email to relayhelp@techsmith.com.

TechSmith Relay Website and Recorder Help

For day-to-day administration of TechSmith Relay, please see the TechSmith Relay Website Help. This help is available after logging into the TechSmith Relay website as an administrator. Just click a Help link, available on each web page, to open the TechSmith Relay Administrator Help.

For help with TechSmith Relay Recorder, please install and open TechSmith Relay Recorder or open the portable recorder to access help for the recorder.

Related Documentation

The following PDF documents are available for download from the TechSmith Relay documentation page on the TechSmith.com website:

- **TechSmith Relay Upgrade Guide**

  Learn how to upgrade TechSmith Relay.

- **TechSmith Relay Administrator Website Help**

  Walk through the configuration of TechSmith Relay and find administration information to help you keep TechSmith Relay running smoothly

- **TechSmith Relay Server Security Administrator Guide**

  Learn about ways to help secure your TechSmith Relay server.

- **TechSmith Relay Release Notes**

  See a summary of the new features and updates. Learn about how those features affect current users.

- **TechSmith Relay Technical Reference Guide**

  An in-depth examination of TechSmith Relay, including the overall architecture, planning information, sizing and performance considerations, security principles, tips on integrating TechSmith Relay with other products, and general best practices.

TechSmith Tutorials

The TechSmith tutorials contain a wealth of free resources for each one of TechSmith's products, including TechSmith Relay. We encourage you to visit the site, choose the section that most interests you and then watch a video or read an article.

The TechSmith Relay tutorials page is available at:

http://www.techsmith.com/tutorial-camtasia-relay-current.html

Contact TechSmith Tech Support

In the event you have an installation issue that cannot be answered with the TechSmith Relay Help and documentation, please follow the steps below to receive assistance from TechSmith Technical Support.

Submit a Question

Problems with installation? Send a question to Technical Support.

1. On the Support Center page (http://support.techsmith.com), click **Ask a Question**.
2. Log in or register.
3. Fill in the requested information, making sure to include as much information regarding the nature of the problem as possible.
4. Select **Other** under Problem Type.
5. In the Attach Documents field, click **Browse** and locate the `%TEMP%\Relay_Setup`.
6. Attach all `.log` files located in the folder to your question.

Call Technical Support

The TechSmith Relay Tech Support team is ready and waiting for your questions. Should you have problems that you cannot solve using the resources provided, please give us a call and we will be happy to assist.

> The following information is available on the TechSmith website by clicking Company > Contact Us. Always refer to that location for latest, most accurate information.

Phone:+1.517.381.2300 (ext. 784)

Toll Free in the U.S. & Canada: 800.517.3001 (ext. 784)

Tech Support Website: http://support.techsmith.com

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