
**Lotus Instant Messaging and Web Conferencing
(Sametime) 6.5.1 Conversion Services
Setup Guide**

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Introduction

IBM® Lotus® Instant Messaging and Web Conferencing (Sametime®) Conversion Services expands the capability of your Sametime server to display meeting attachments in the whiteboard of your meetings and improves convenience for your users.

Beginning with the 6.5.1 release, the Sametime product has been renamed. However, references to the product name have not been changed in most of the documentation and user interface. Consider the name "Sametime" to be synonymous with "IBM Lotus Instant Messaging and Web Conferencing" when reading the product documentation.

Sametime Conversion Services is an optionally installable component of Lotus Sametime.

If you do not install Lotus Sametime Conversion Services and you want to display a meeting attachment in the whiteboard of your meeting, you must download the Sametime Print Capture Utility, install it on your workstation, and use it to process the document before attaching it to the meeting. You can attach other types of documents to a meeting and attendees will be able to download them. However, if the attachments have not first been processed with the Sametime Print Capture Utility, the attachments will not be displayed in the whiteboard.

With Lotus Sametime Conversion Services, you do not need to prepare most meeting attachments with the Print Capture Utility. Setting it up is straightforward for the administrator. Your system administrator installs Sametime Conversion Services on a Microsoft® Windows® workstation or server (which is referred to as the Sametime Attachment Conversion server). In addition, the administrator provides the Sametime server with the information necessary to communicate with the Sametime Attachment Conversion server.

Once the administrator completes the setup for Lotus Sametime Conversion Services, using it is transparent to end users. When a document is attached to a meeting, the Sametime server automatically sends the document to the Sametime Attachment Conversion server. The conversion server converts the attachment to the appropriate format and sends it back to the Sametime server, where it is attached to the meeting. The attachment can then be displayed in the whiteboard of the meeting.

About Conversion Services in Sametime 6.5.1

Sametime 6.5.1 includes the same level of the conversion services that was previously shipped with Sametime 3.1.

If you are upgrading Sametime from a release prior to 3.1, you should upgrade your conversion server.

If you are upgrading from Sametime 3.1, you may already have the latest level of the conversion services installed.

To determine whether you have the latest version of the conversion services installed, complete these steps at the Sametime Attachment Conversion server:

1. Click **Start** and select **Settings --> Control Panel**.

Note On Windows XP systems, you may need to click **Start**, and then select **Control Panel**.

2. Double-click **Administrative Tools**.

3. Double-click **Services**.

4. Check the level of Sametime Conversion Services that is included in the list of services.

- If the 1.0 level is listed, then you should upgrade your conversion server. You are currently running the level that was shipped with Sametime 3.0.
- If the 1.1 level is listed, you may be running the latest level but you need to check the program files in the conversion services program directory in order to be certain.

The default directory is C:\Program Files\Lotus\Sametime\Conversion Services. If the latest version is installed, the modification date for kptifldr.dll is 8/18/2003 and the modification date for most of the other files is 6/20/2003.

The process for upgrading the Sametime Conversion Services is the same as the process for installing it the first time. See the installation instructions later in this guide.

If you have been running a release prior to Sametime 3.1 or an older level of the conversion services, upgrading has several benefits. The newer attachment conversion process uses updated conversion routines to improve the fidelity of the documents displayed on the meeting whiteboard. In addition, you have a new option to reduce network traffic. You can specify that, once conversion is complete, the resulting bitmap should be compressed before transferring it back to the Sametime server.

When you upgrade a Sametime for iSeries server from a release prior to Sametime 3.1, the Attachment Conversion Server section of the meetingserver.ini file is updated and the order of the existing configuration information is changed. If the Attachment Conversion Server section of the meetingserver.ini has been changed so

that the format is incorrect, the incorrect portions will be removed when you upgrade. If you need to examine the contents of the original file after upgrade, it is saved in the server data directory as meetingserver.bak.

Planning considerations

Your system administrator can decide how many Sametime Attachment Conversion servers are required in your enterprise and where they should be located. Here are some alternatives to consider:

- You can configure multiple Sametime servers to share the services of a single Sametime Attachment Conversion server. This may be sufficient to handle lighter workloads.
- You may decide that each Sametime server should have its own conversion server. This may be a better alternative if your Sametime servers are widely dispersed. Physically locating a Sametime Attachment Conversion server near each of your Sametime servers will reduce the load on your network.
- To further reduce the load on your network, you may want to implement bitmap compression, a feature first available in Sametime Conversion Services 1.1. This feature instructs the Sametime Attachment Conversion servers to compress all converted bitmaps before sending them back to the Sametime server. This compression can reduce network traffic dramatically and may, in some cases, speed up the conversion process.
- If necessary, you can install and configure additional Sametime Attachment Conversion servers to service the needs of a single Sametime server.
- The Sametime Attachment Conversion server performs conversions based on the CCSID/code page of the operating system where the conversions are performed. If your company is multinational, you may choose to configure multiple Sametime Attachment Conversion servers using systems with different CCSIDs/code pages in order to handle the needs of your different users.
- By configuring your Sametime server to use more than one Sametime Attachment Conversion server, you can enhance the availability of conversion services. If one of the conversion servers is not available (such as powered off), the Sametime server will automatically search for another conversion server.
- You can also configure multiple Sametime servers to share a pool of Sametime Attachment Conversion servers. When a new conversion request is received, each Sametime server will send the attachment to the conversion server which appears in its configuration list immediately after the one that was used for the previous request. When multiple servers are handling many attachments, this will result in distributing the workload across the entire pool of conversion servers.

Installation checklist

Before you begin, complete the installation of your Sametime server as described in the Sametime for iSeries Installation Guide (stinstall.nsf or stinstall.pdf). Verify that your Sametime server is functioning correctly before you attempt to install and configure Sametime Attachment Conversion Services.

- Verify that the Windows system you plan to use as a Sametime Attachment Conversion server satisfies the hardware and software requirements
- Install Sametime Attachment Conversion Services on the Windows system
- Update the configuration of your Sametime server
- Restart your Sametime server

Hardware and software requirements

These are the requirements for the Windows system that you plan to configure as a Sametime Attachment Conversion server.

Operating System	Microsoft Windows 2000 (Professional or Server) or Microsoft Windows XP Professional with the latest service pack installed
Computer/Processor	<ul style="list-style-type: none">• Workstation running Windows 2000 Professional: requires 133 MHz or higher Pentium® processor-based compatible CPU.• Workstation running Windows XP Professional: requires 300 MHz or higher Pentium-compatible CPU.• Server running Windows 2000 Server: requires 133 MHz or higher Pentium-compatible CPU.• Integrated xSeries™ Server (IxS) for iSeries™ running Windows 2000 Server: requires 333 MHz or higher Pentium-compatible CPU. (Smallest currently available processor is a 700 MHz Pentium III.)
Memory	Minimum of 256 MB If you are using an Integrated xSeries Server, you will require additional memory. See the following web site for more information: http://www.ibm.com/eserver/iseries/windowsintegration/
Disk Space	Lotus Sametime Conversion Services requires a minimum of 200 MB free disk space; 500 MB is recommended. Additional disk space allows more file attachments to be converted simultaneously. Note This does not apply to the IxS.

Note The Integrated xSeries Server (previously called Integrated PC Server and Integrated Netfinity Server) is an iSeries server feature that includes an Intel® processor and PC memory packaged on a system board to fit inside the iSeries server.

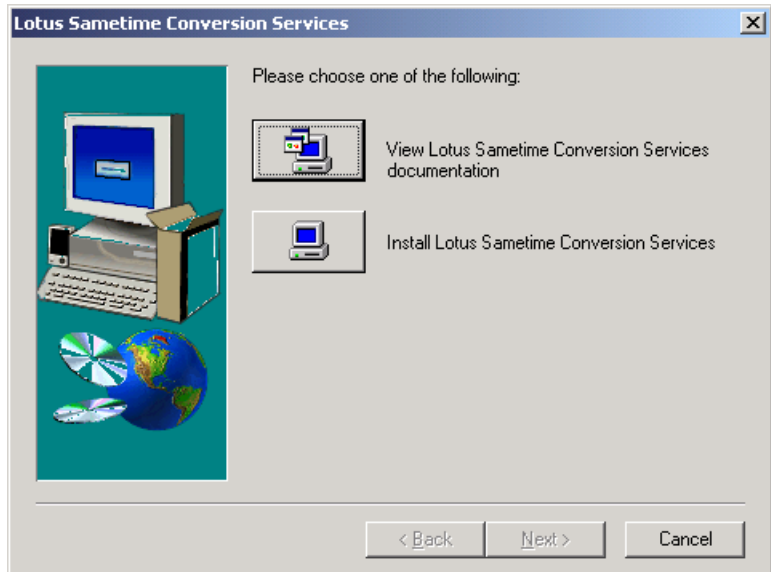
Additional recommendations

- Do not use your Sametime Attachment Conversion server for anything other than converting meeting attachments. If you run other types of work on the conversion server, this may complicate the installation process and may degrade attachment conversion performance.
- Ensure that the following products are not installed on your Sametime Attachment Conversion server:
 - Lotus Domino™
 - Lotus Notes®
 - Lotus Sametime
 - Lotus QuickPlace™

Installing Sametime Attachment Conversion Services

To install Sametime Attachment Conversion Services, complete the following steps:

1. Insert the Sametime CD (Volume 2) in the CD-ROM drive of your conversion server.
2. Click **Start** and select **Run**.
3. Enter the following, replacing *D* with the letter corresponding to your CD-ROM drive:
`D:\stconv\stconv.exe`
4. Click **OK**.
5. The following prompt is displayed which allows you to select one of two options:



6. Select the install option and click **OK**.
7. Respond to the prompts as they are displayed to complete the installation.
8. Open a Windows Command Prompt and run the following command:

ipconfig

Record the "IP Address" that is displayed. You will need this value when you update the configuration of your Sametime servers in the next section.

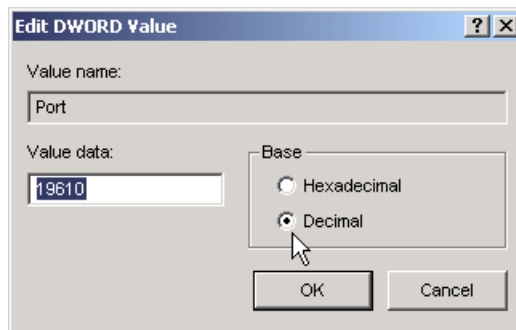
Note It is recommended that you configure TCP/IP on your Attachment Conversion server to use a specific IP address and that you do not select the option to obtain an IP address dynamically from a DHCP server. If you configure the Attachment Conversion server to use DHCP, then its IP address may change when it is rebooted. If the IP address changes, then the values that you use to configure the Sametime server will no longer be correct and the Sametime server will be unable to communicate with the Attachment Conversion server.

Changing the port value for Sametime Conversion Services

In most cases, your Sametime server will be able to communicate with the Sametime Attachment Conversion server using the default port of 19610 and you do not need to change it. However, if another application running on your conversion server is already using the default port, you must change the Port registry key value for Sametime Conversion Services to another value.

If you need to change the port value, complete the following steps at the Sametime Attachment Conversion server:

1. Stop Sametime Conversion Services.
See the instructions in the section "Managing Sametime Conversion servers" later in this document.
2. Click **Start** and select **Run**.
3. In the Open box, type **regedit**.
4. Click the + in front of each of the following registry key names as they are expanded:
 - HKEY_LOCAL_MACHINE
 - SOFTWARE
 - Lotus
 - Sametime
 - MeetingServer
 - ConversionServices
5. Click **1.1**. Some registry values appear in the right-hand window.
6. Right-click **Port** and select **Modify**. The "Edit DWORD Value" dialog appears.
7. Select **Decimal** in the 'Base' section of the dialog.
8. Change the 'Value data:' value from 19610 to an unused TCP/IP port.



9. Click **OK**.

10. Close the Registry Entry window.

11. Start Sametime Conversion Services.

See the instructions in the section "Managing Sametime Conversion servers" later in this document.

You have now successfully reconfigured Sametime Conversion Services to listen on a different port.

In the next section, you will configure your Sametime server so that it can communicate with the Sametime Attachment Conversion server. You must use the same port that you specified in this section.

Verifying locale setting for converting international documents

If your users will be attaching documents to meetings that contain text for languages other than English, you should verify that the locale for your Sametime Attachment Conversion server is set appropriately.

1. Click **Start** and select **Settings --> Control Panel**.

Note On Windows XP systems, you may need to click Start, and then click Control Panel.

2. Double-click **Regional Options** (Windows 2000) or **Regional and Language Options** (Windows XP).

3. Select the appropriate combination of language and region.

4. Click **OK**.

5. Restart the system.

Updating the configuration of Sametime servers

Each of your Sametime servers must be properly configured to communicate with one or more Sametime Attachment Conversion servers. This section describes how to accomplish this configuration by editing a portion of the meetingserver.ini file for each of your Sametime servers.

By default, the Attachment Conversion Server section of the meetingserver.ini file looks like this:

```
[SOFTWARE\Lotus\Sametime\MeetingServer\ConversionServices]
AttachmentConversionServerTimeout=120
AttachmentConversionServerCompressionEnabled=1
NumberOfAttachmentConversionServers=0
AttachmentConversionServer1=0.0.0.0:19610
AttachmentConversionServer2=0.0.0.0:19610
```

If the NumberOfAttachmentConversionServers parameter is set to 0 (the default), the Sametime server will not attempt to convert meeting attachments. No attachments are converted and everything else in this section of the meetingserver.ini file is ignored.

Follow these steps to configure a Sametime server to communicate with one or more Sametime Attachment Conversion servers:

1. Locate the meetingserver.ini file in your Sametime server's data directory and open it for editing. On an iSeries server, use Operations Navigator or the EDTF command to open and edit the file.
2. Adjust the AttachmentConversionServerTimeout parameter if necessary.

This value specifies the number of seconds that the Sametime server will wait for an Attachment Conversion server to process one page of an attachment and send the converted bitmap page back to the Sametime server. If an Attachment Conversion server does not respond within the configured timeout value, the conversion process is ended and the Sametime meeting is created without the converted attachment. The meeting attachment will not be viewable from the whiteboard.

Consider increasing the AttachmentConversionServerTimeout value in the following situations:

- You have many Sametime servers accessing the same or just a few Attachment Conversion Servers
- Your network environment has very heavy traffic
- The Attachment Conversion server is attached to the network via a modem (e.g., 28.8Kbps)

3. Adjust the AttachmentConversionServerCompressionEnabled parameter if necessary.

If this value is set to 1, bitmap compression is enabled; if it is set to 0, bitmap compression is not enabled.

If you enable bitmap compression, the Attachment Conversion server compresses each converted bitmap page before sending it back to the Sametime server and the Sametime server decompresses each page to its original size. Please note that although bitmap compression significantly reduces network traffic, it does add some processing overhead to the Attachment Conversion server.

If you do not enable bitmap compression, no compression is performed and the conversion process is performed just as it was with Sametime 3.0.

Consider enabling bitmap compression in the following situations:

- You have very heavy network traffic.
- The Attachment Conversion server is attached to the network via a modem (e.g., 28.8Kbps).
- Your Attachment Conversion server has a fairly powerful processor and it is not overworked by multiple Sametime servers accessing it, your network load is light, and your connections are fast.

In this case, compressing bitmaps will probably take less time than sending uncompressed bitmaps over the network.

You may want to experiment by creating meetings with typical attachments. Compare the response times when bitmap compression is enabled and when it is disabled to determine which is better for your environment.

4. Change the NumberOfAttachmentConversionServers parameter to the number of Windows systems you plan to use for converting meeting attachments.

Note You must install Lotus Sametime Conversion Services on each of the Windows systems as described in the previous section.

5. For each Sametime Attachment Conversion server that you plan to use, change an existing AttachmentConversionServer entry or add another entry and specify the TCP/IP address and Port on which the conversion servers are listening. For example, if you are using two conversion servers, the Attachment Conversion Server section of the meetingserver.ini file should look similar to this:

```
[SOFTWARE\Lotus\Sametime\MeetingServer\ConversionServices]
AttachmentConversionServerTimeout=120
AttachmentConversionServerCompressionEnabled=1
NumberOfAttachmentConversionServers=2
AttachmentConversionServer1=1.1.1.1:19610
AttachmentConversionServer2=2.2.2.2:19610
```

In this case, the first Sametime Attachment Conversion server is listening on TCP/IP address 1.1.1.1, port 19610. The second Sametime Attachment Conversion server is listening on TCP/IP address 2.2.2.2, port 19610.

Notes

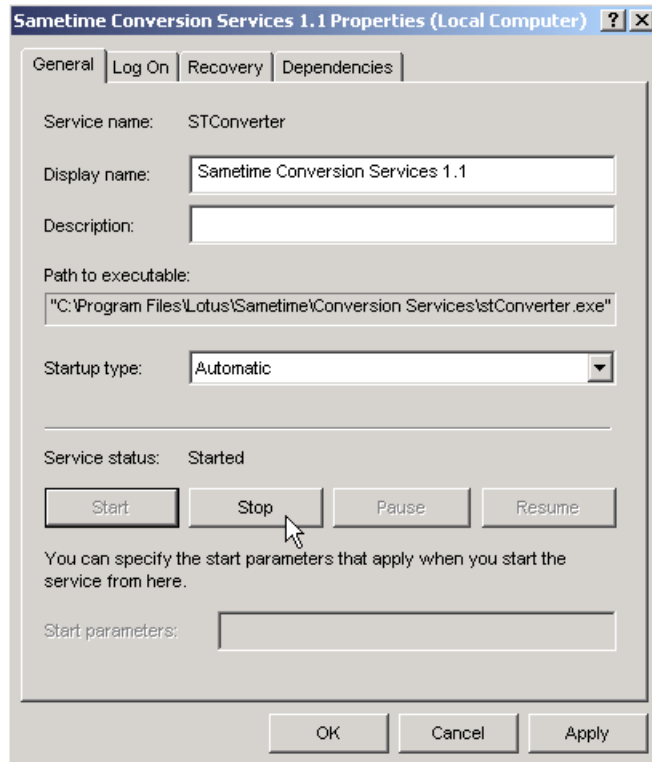
- If you choose not to specify a port value, do not place a colon (:) after the TCP/IP address. If the port is not specified, the default port (19610) is used.
 - If you configured a Sametime Attachment Conversion server to use a port other than 19610, the AttachmentConversionServer entry for that server in the meetingserver.ini file must specify the same port number.
 - The AttachmentConversionServer names must be listed in sequential order. For example, AttachmentConversionServer1 is listed first, followed by AttachmentConversionServer2, AttachmentConversionServer3, etc.
 - If any of the AttachmentConversionServer values are incorrect (not in sequential order, invalid format for TCP/IP address, etc.), all subsequent AttachmentConversionServer values are ignored.
 - If you list more Attachment Conversion servers than specified by the NumberOfAttachmentConversionServers parameter, the excess Attachment Conversion server configurations are ignored.
 - The maximum number of Attachment Conversion servers is 99.
6. Save and close the meetingserver.ini file.
 7. Restart the Sametime server so that the changes will take effect.

Managing Sametime Attachment Conversion servers

Stopping Sametime Conversion Services

Complete these steps at the Sametime Attachment Conversion server:

1. Click **Start** and select **Settings --> Control Panel**.
Note On Windows XP systems, you may need to click **Start**, and then select **Control Panel**.
2. Double-click **Administrative Tools**.
3. Double-click **Services**.
4. Double-click **Sametime Conversion Services 1.1**.
5. Click **Stop** if the service is currently started.

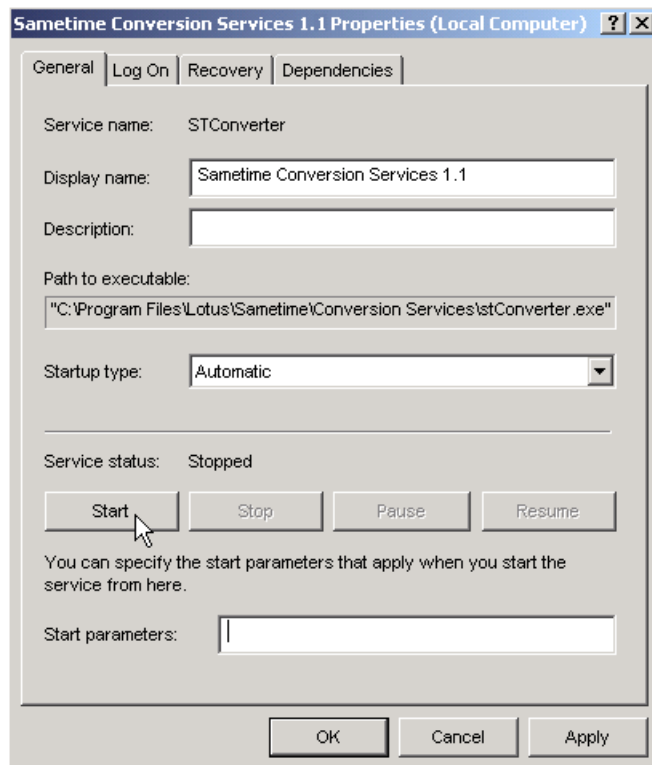


Starting Sametime Conversion Services

Sametime Conversion Services will start automatically when the conversion services are installed or when the system is rebooted.

If it is necessary to start Sametime Conversion Services manually, complete these steps at the Sametime Attachment Conversion server:

1. Click **Start** and select **Settings --> Control Panel**.
Note On Windows XP systems, you may need to click **Start**, and then select **Control Panel**.
2. Double-click **Administrative Tools**.
3. Double-click **Services**.
4. Double-click **Sametime Conversion Services 1.1**.
5. Click **Stop** if the service is currently started.



6. Click **Start**.

Caution If you click **OK** without first clicking **Start**, the window closes but the service is not started.

Note If you are attempting to diagnose a problem and want to start the service with tracing enabled, enter **-debug** in the 'Start parameters' field before you click **Start**. The trace information is logged to a file called C:\WCTrace.log. When Sametime Conversion Services is started with tracing enabled, the trace messages are appended to the end of the file. Therefore, when you use logging, the file will continue to grow unless you periodically edit it or delete it.

Handling Windows service failures

By default, Sametime Conversion Services is configured to handle service failures as follows:

First failure	Restart the Service
Second failure	Restart the Service
Subsequent failures	Restart the Service
Reset fail counter after	1 day
Restart service after	1 minute

You can change these settings by completing the following steps:

1. Click **Start** and select **Settings --> Control Panel**.

Note On Windows XP systems, you may need to click **Start**, and then click **Control Panel**.

2. Double-click **Administrative Tools**.

3. Double-click **Services**.

4. Double-click **Sametime Conversion Services 1.1**.

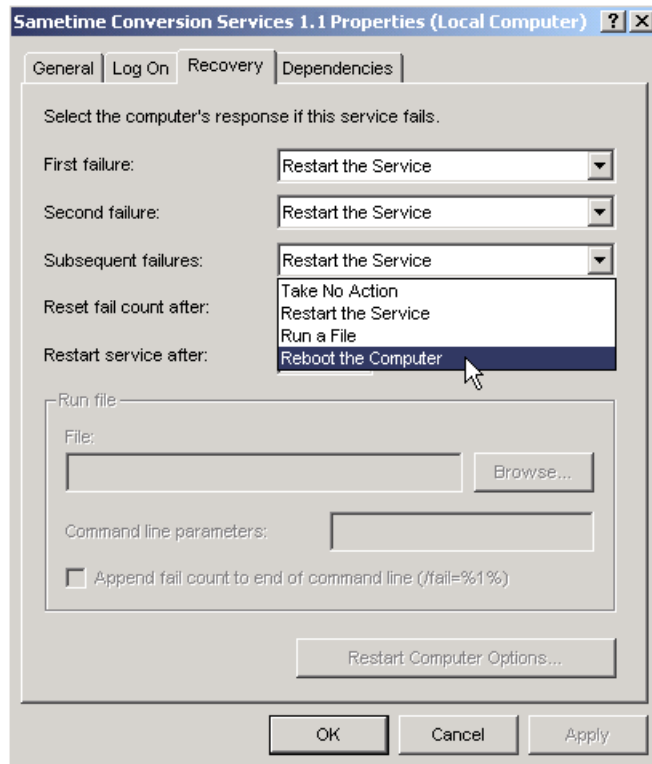
5. Select the **Recovery** tab.

6. Change the parameters' values as necessary.

The 'First failure', 'Second failure' and 'Subsequent failures' parameters can be set to one of the following 4 values:

- Take no Action
- Restart the Service
- Run a File
- Reboot the Computer

You can also change the 'Reset fail counter after' and 'Restart service after' values.



7. Select the **General** tab.
8. Click **Stop** if the service is currently active.
9. Click **Start**.

Troubleshooting

If your meeting attachments are being converted but you are not satisfied with the results for a particular document, consult the Lotus Sametime User's Guide. You can access this from the Sametime Welcome Center by following the Documentation link. The guide contains tips for preparing files to display on the whiteboard and indicates situations where the Sametime Print Capture Utility produces better results.

If you have installed and configured Sametime Conversion Services but meeting attachments are not being converted, verify all of the following:

1. Your Sametime server is fully running and operational with the exception of Attachment Conversion Services.

2. At least one of your Sametime Attachment Conversion servers is powered on and operational.
3. Sametime Conversion Services 1.1 is started on the conversion server.
4. The Sametime server is configured to use the correct TCP/IP address and port number for each Sametime Attachment Conversion server.
 - Open the Sametime server's meetingsserver.ini file, and find the section called: `[SOFTWARE\Lotus\Sametime\MeetingServer\ConversionServices]`
 - Make sure that NumberOfAttachmentConversionServers is set to a number greater than 0.
 - Verify that one or more Attachment Conversion servers are configured with valid TCP/IP addresses (and possibly port values).
 - Verify that the TCP/IP address specified in the meetingsserver.ini file matches the IP address returned by the ipconfig command on the Attachment Conversion server. If they do not match, check to be sure that TCP/IP on the Conversion server is configured to use a specific IP address rather than obtaining an IP address dynamically from a DHCP server. When the Conversion server uses DHCP, the IP address may change. In that case, the Sametime server configuration will no longer be correct.
 - If specified, the port value in the meetingsserver.ini file must match the port value in the registry entry for Sametime Conversion Services on the Conversion server. If the port value is not specified in the meetingsserver.ini file, the registry entry must be 19610. For information about verifying the registry entry, see "Changing the port value for Sametime Conversion Services."
 - If you correct a problem by updating the meetingsserver.ini file, you must restart the Sametime server.
5. The system where you are running Sametime is communicating properly with the Attachment Conversion server.
 - From the system where you installed Sametime, ping each of the TCP/IP addresses listed in the Attachment Conversion server section of the meetingsserver.ini file.

Note When running the PING command from an OS/400 command line, the Internet address must be enclosed in apostrophes. For example:

```
PING 'xxx.xxx.xxx.xxx'
```
 - If your TCP/IP address is correct and systems are communicating properly, you will see several messages indicating a positive response from the Attachment Conversion server. If the TCP/IP address is incorrect or if there is a network problem, you will see a message indicating that there was no response.

- If you do not receive a response from the Attachment Conversion server and you have already verified that the meetingserver.ini configuration is correct, verify that TCP/IP is started on both the Attachment Conversion server and the system where you are running Sametime.
- If TCP/IP is started on both machines and they are still not communicating, there is probably a network problem. Contact your system or network administrator.

If you are still having problems, consult "Troubleshooting Sametime Attachment Conversion" which is available online as Lotus Technote 195030:

1. Visit the Lotus Support web site at the following address:
<http://www.ibm.com/software/lotus/support>
2. Select **Lotus Sametime** from the product list.
3. Specify 195030 as the search text, select **All support items** and click **GO**.

Uninstalling Sametime Conversion Services

To uninstall Sametime Conversion Services, complete these steps:

1. Click **Start** and select **Programs --> Sametime Conversion Services**.
2. Click **UnInstall Sametime Conversion Services**.

Supported attachment types

All of the following attachment types can be attached to a meeting on a Sametime server. If you install and configure Lotus Sametime Conversion Services, these attachments will be converted for display in the meeting whiteboard.

- Ami Pro 3.x [.SAM]
- Bitmap [.BMP]
- CCITT Group 3 Fax [.TIF]
- CompuServe Graphics Interchange Format [.GIF]
- Computer Graphics Metafile [.CGM]
- Hypertext Markup Language (HTML) [.HTM, .HTML]
- JPEG file [.JPEG, .JPG, .JPE]
- Lotus 1-2-3® 3.0, 4.0, 5.0, 6.x, R9 [.WK*, .123]
- Lotus 1-2-3 97 and 98, R9 [.123]
- Lotus 1-2-3 for Macintosh
- Lotus 1-2-3 for OS/2 [.WG2]

- Lotus Freelance Graphics® for OS/2 [.PRS]
- Lotus Freelance Graphics [.PRE, .PRZ]
- Lotus PIC [.PIC]
- Lotus Word Pro® 96/97, R9 [.LWP]
- Microsoft Excel 2.x, 3.0, 4.0, 5.0, 7.0, 97, Office 2000 [.XLS]
- Microsoft PowerPoint® 4.x, 7.0, 97 [.PPT]
- Microsoft Word for Macintosh 2.0, 3.0
- Microsoft Word for Windows 6.0, 7.0, 97, Office 2000 [.DOC]
- Paintbrush/DCX (multi-page PCX) [.PCX]
- PICT and PICT2 Graphics [.PCT]
- Portable Network Graphics [.PNG] ; Seems to be supported in R5
- Revisable Form Text [.RFT]
- Rich Text Format [.RTF]
- Sametime Print Capture File [.FST]
- Sametime Whiteboard [.SWB]
- Tagged Image File Format [.TIFF, .TIF, .EPS]
- Text file [.TXT, .BAT, .INI]
- Windows Metafile Graphic [.WMF]
- WordPerfect 5.x, 6.x, 7.x
- WordPerfect 8 [.WPD]
- WordPerfect for Macintosh 2.0, 3.0
- WordPerfect Graphics [.WPG]