TeleMagic®

Data Synchronization Server

DATA SYNCHRONIZATION SERVER

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THE SAGE GROUP PLC

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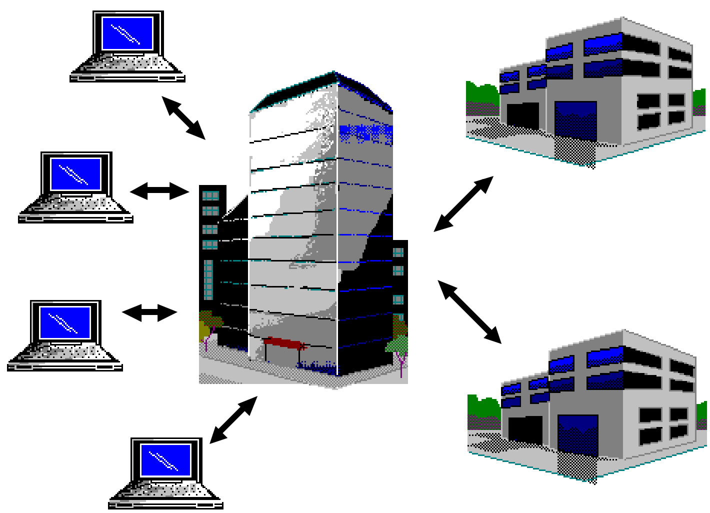
INTRODUCTION

Introduction to Database Synchronization

Users who work on a network are accustomed to being able to share information with other members of their workgroup through the network connection. Database Synchronization accommodates members of a given workgroup who do not work at the same location. You may have satellite offices sharing a database with your central location; or you may have users out in the field who need to be able to access their activities and contact records.

If you have remote installations of TeleMagic, you can use TeleMagic's Data Synchronization Server with these installations wherever users need to be able to access and edit data away from the main office. Using Data Synchronization Server, changes to your records made in remote sites can be updated in the central location, and vice versa, as often as necessary to ensure that all users are working with the most up-to-date data.



Database Synchronization Sample Setup:
One Central Location, Four Remote Installations, and Two Satellite Offices

TeleMagic Data Synchronization Server offers some power features in addition to standard synchronization of contact data. Using Data Synchronization Server you can also synchronize embedded OLE fields, activities, e-mail, filters, indexes, list boxes, users, security, preferences, and even changes to your contact views and fields.

How Database Synchronization Works

Data Synchronization Server synchronizes all of your installations of TeleMagic Enterprise V5. Each installation used in synchronization is called a site. The site that contains the primary installation of TeleMagic is called your central site. The central site uses a server to perform synchronization with all of the other sites. These other installations that are synchronized with the central installation are called remote sites and/or satellite sites.

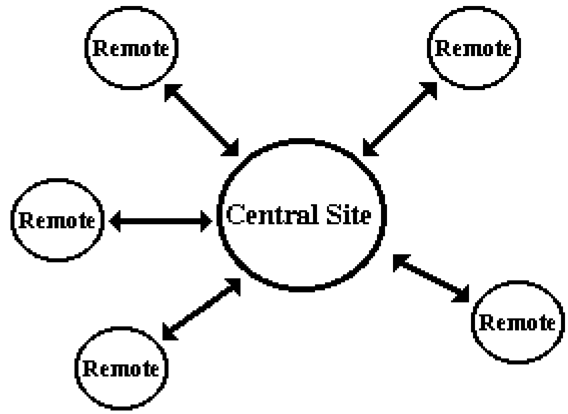
Using Data Synchronization Server entails simple setup where your central and remote sites are established. When setting up the central site, you establish what information should be outgoing. You have total control—down to which fields of contact data should and should not be synchronized. When setting up the remote sites you give each site a unique name and ID, then establish the user(s) working at each site, and what information should be received by each.

Once setup is completed, TeleMagic will create a file to contain transaction records. As you make changes in TeleMagic, transactions are created for any changes made in databases included in synchronization. When you go into process mode in Data Synchronization Server, these transaction records are condensed into packets and placed in a directory created by the Data Synchronization Server program called \TM\TMSYNC\OUTBOX by default. Users can then retrieve these packets and place them in the inbox directories at the remote sites (\TM\TMSYNC\INBOX by default). When a packet in an inbox is processed, Data Synchronization Server will update the remote site with the changes. At the same time, each remote site is creating transaction records which will end up as packets in their outboxes for eventual synchronization with the central location. In this way, the database synchronization process comes full circle and all users are working with the most current information.

DIFFERENT TYPES OF SITES

What is the Central Site?

The central site is the main installation of TeleMagic for synchronization. Any number of sites can be synchronized, but there must be one central site. All other sites are synchronized with the central site. The central site maintains total control over the information that is sent to each remote, and over the information that each remote sends back to the central.



You have the option of dedicating a workstation to processing full-time, or only processing when necessary. A dedicated server is not required for the central site, but the central site server must process information from all of the remote sites. This means that it is advisable to consider a dedicated machine to act as the Data Synchronization server at the central site in organizations with a large number of remote sites, or where it is necessary to perform synchronization frequently. The workstation to be used as the server at the central site must meet the minimum system requirements for TeleMagic. The central site can have more than one server.

Note: A *server* can be any device that performs some function, or service, for a group of users. Whenever a computer is dedicated to performing one such service, it is usually referred to as a *dedicated server*. Sometimes this is shortened to *server* for convenience. Since Central and Satellite sites perform a service for a group of remote sites, they can also be referred to as *servers.*

What are Remote Sites?

While there can be only one central site, there can be any number of remote sites. Each remote site is an independent installation of TeleMagic, which engages in a two-way exchange of information with the central site or a satellite site. Any particular remote site can only be associated with one other site; either the central or a satellite. Which server the remote is attached to can be changed when the need arises.

Note: *Satellite* sites are special cases. A satellite site can only be associated with one central site, and in this way is similar to a remote site. However, a satellite site can be associated with any number of remote sites.

What sort of information is exchanged between the remote sites and their respective server is controlled from the server, and the specifics of this exchange can be tailored to the individual organization's needs. Exactly what is synchronized can vary from one remote site to the next.

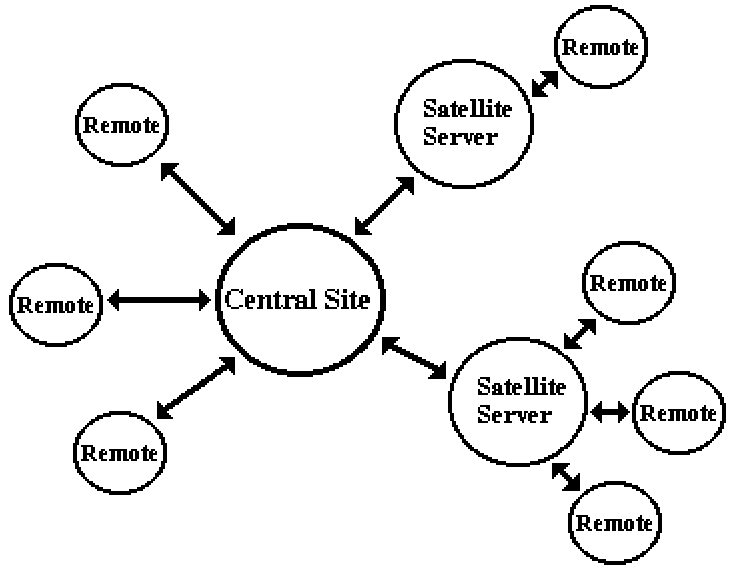
Each remote site must have at least one user that is known to the central site. The primary purpose of synchronization is to share information in a database, so it is not mandatory for every user at a remote site to be on the user list at the server. However, when a user is listed at the server he or she will be able to use internal TeleMagic e-mail to communicate with other users and synchronize activities with the rest of the organization. A user can exist at any number of sites, but each user ID must be unique within the entire synchronization network.

What are Satellite Sites?

The satellite feature allows one installation of TeleMagic to be both a server and a remote. In a standard synchronization model, there is one central site. Additional installations of TeleMagic share information with each other through that site.

Satellite sites are similar to remote sites in the way that they communicate with the central site, its remote sites, and other satellite sites. The central site continues to maintain control over the information that it sends to the satellite site and the information that the satellite site sends back to it. The central views and treats the satellite just like any of its other remote sites. The same limits that are placed on remote sites are also placed on satellite sites when they are synchronizing with the central.

The only difference is that satellite sites have their own remote sites. These remote sites do not communicate directly with the central site. They view the satellite site as their central installation. It becomes a satellite server for its remote sites:



The central site has no control over the information that is synchronized between a satellite server and its remote sites. This is controlled at the satellite server. This information may or may not be included in synchronization with the central site. For example, the central site may be set up to synchronize only the Company/Contact database with the satellite server. The satellite server may synchronize the Company/Contact database with one of its remotes, and the TeleMagic DOS Style Database with a second remote. Changes from the first remote to the Company/Contact database will be synchronized back to the satellite server and then to the central site. Changes from the second remote to the TeleMagic DOS Style Database will be synchronized back to the satellite server, but will not be synchronized to the central site.

When setting up your satellite sites, it is helpful to remember that a satellite behaves exactly like a remote in relation to the central site, and like a server in relation to its remotes. In most respects, the central site will view a satellite just like any of its other remotes. When performing general setup at the satellite site, most of the settings you make (such as selecting databases, establishing field rules, etc.) will only apply during synchronization with the satellite's remotes. Setup options that are not available at remote sites will generally not be applied when the satellite synchronizes with the central.

BASIC SETUP

Basic Setup

Data Synchronization Server contains power features that allow you to precisely customize your database synchronization process. As you become familiar with Data Synchronization Server, you will find that these power features allow you to do everything from controlling exactly what type of activities are sent to each site, to automatically creating databases and security settings at remote sites. The more you work with Data Synchronization Server, the more you will find that it impacts on areas above and beyond the simple sharing of data between sites.

One of the strongest features of Data Synchronization Server is its flexibility—your synchronization needs are anticipated and accommodated. This flexibility does not, however, make it difficult to set up and use. In fact, you can begin with basic setup, which should only take a few minutes (depending on the number of your remote sites), then add power features to this basic setup as your synchronization needs become evident.

Hint: Preview the *Power Features* chapter later in this guide to determine if any are immediately useful to your setup.

As you go through the basic setup, you will find that in a few areas the results of your selections can vary depending on your settings in other areas. In these instances, a brief explanation of the related feature and the results of combining the settings have been provided, along with a cross-reference to the section of this guide providing more information. Consider reading this entire procedure before beginning setup to familiarize yourself with the options available to you.

There is an online tutorial, DSSTUTOR.HLP, which will step you through the basic Data Synchronization Server setup. The tutorial is offered as an enhancement to this guide, not a substitute for it. If you choose to use the tutorial, it is still recommended that you preview the options available as presented in this guide.

Before Setup

Before you perform database synchronization setup, you must have installed TeleMagic Enterprise V5 and Data Synchronization Server on your central location and the remote sites to synchronize. *Do not* install TeleMagic on the remote sites by copying your central installation. Each remote site must be a separate installation of TeleMagic Enterprise V5 with a unique System ID and serial number.

You should also know how each remote site will be used. Review the points on the following page before proceeding.

How many remote sites will you be using?

Creating a remote site is a two-part process: installing Data Synchronization Server on the remote installations of TeleMagic, and establishing those sites in Data Synchronization Server at the central installation. You can install Data Synchronization Server on as many remote installations of TeleMagic as you have.

You should also have a separate installation of TeleMagic Enterprise V5 for each site. (Each site must have a unique serial number and site ID.) Since you will be creating a list of your sites in Data Synchronization Server and giving each a name, it may be helpful if you have listed them in advance.

How many of the remote sites will be satellites?

Satellite offices provide an alternative to connecting remote installations directly to the central site. Satellite sites are not mandatory, and may not be necessary in all implementations. If you decide that your organization will benefit from satellite servers, you will need to consider which of your installations are best suited to assume this responsibility. Specific considerations will vary from one organization to the next, but among the possible factors to review would be location, installed hardware, and whether personnel are available at the site.

Who will be using each remote site?

You will be creating a list of users who may be working at each site. If an installation of TeleMagic is on a user's laptop, and that user is the only one who will be accessing TeleMagic, that is the only user of concern for that site. If the installation is at a satellite office, or a laptop used by multiple users at different times, you need to think about who may possibly need to access TeleMagic on that installation and include all of those individuals in the list.

Which databases will the site(s) be using?

Not all of your sites will necessarily be working with the same information. Consider who will be working at a site, to develop a better idea of what information they are likely to need to access.

Does the site need to work with all records in the database, or only a filtered group of records?

If users at a site only work with a filtered group of records in a database, consider which group of records in which databases needs to go to each site. If you do require filters, they must be created in the central or satellite installation of TeleMagic prior to setting up the site in Data Synchronization Server.

Are there any fields in the database that should not be synchronized to the site?

You can selectively exclude any fields from any database for each site if necessary. It will be helpful if you have created a list of fields you do not want included prior to accessing Data Synchronization Server setup.

Consider creating a reference table to contain this information prior to proceeding. An example of this may be as follows:

Site Name	Users	Databases	Records	Fields
Dale's Laptop	Dale Canopy	Company/Contact Suppliers	Contacts in California (Company/Contact) All Records (Suppliers)	All Fields (both databases)
Sonoma Office	Dale Canopy Dan Prey Jennifer Cram Lucy Johnson	All Databases	All Records	All Fields

If your synchronization network is potentially complex, such as one with several satellite offices and remote installations, it is advisable to develop an interconnection diagram to maintain control over the relationships among your systems.

If you have several sites to set up you may find that pre-planning your selections will help to avoid possibly confusing your settings between sites.

Installing Data Synchronization Server on the Central Installation

Before proceeding, you must decide which installation of TeleMagic Enterprise V5 is to be your central site. There are no special workstation requirements to run the server beyond what is required to run TeleMagic. Adequate free disk space must be available during the synchronization process. Allocate at least 50 MB of disk space, plus an additional 5 MB for each remote site with which you will be synchronizing.

To Install Data Synchronization Server on Your Central Installation:

1. On the PC or network containing the installation of TeleMagic Enterprise V5 that you will be using as your central installation, make a note of the path to your TeleMagic installation and the Folder containing your TeleMagic icons.
2. Insert the installation CD-ROM in your CD-ROM drive.
3. The setup program will launch.

or If the setup program does not automatically launch under your workstation configuration in Windows, select **Start**, **Run** from the taskbar to open the Run dialog box. In the Open: field type D:\SETUP.EXE (where D: is the drive letter of your CD-ROM drive) and click **OK**.

The TeleMagic Setup screen will open.

4. Click the **Install/Upgrade TeleMagic Data Synchronization** button.

   The Welcome screen will open.

5. Carefully read the Welcome screen and follow any instructions given, then click **Next>**.

   The Select Data Synchronization Type screen will open.

6. Select TeleMagic DSS Central to install the central site.

   WARNING! You cannot have multiple central installations. Do not select TeleMagic Data Synchronization Server if you have already selected this option on another site.

7. Click **Next >**.

   The Choose Destination Location screen will open.

8. Enter the main TeleMagic directory (the directory where your TeleMagic files are stored) in the field, or click **Browse...** to locate the directory from a Choose Directory dialog box. When you have selected the directory, click **Next >**.

   A screen will appear showing the default TeleMagic Program Folder to hold the Data Synchronization Server icons.

9. Click **Next >** to accept this Program Folder.

or If this is not the correct Program Folder, select the correct Program Folder containing your TeleMagic icons from the Existing Folders list. When you are satisfied with your selection, click **Next >**.

or Enter the name of a new Program Folder and it will be created. When you are satisfied with your selection, click **Next >**.

A screen will appear showing all of the current settings that you have selected for this installation.

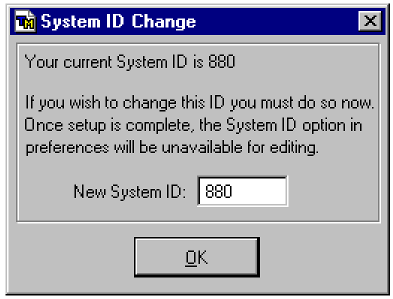
10. Click **Next >** to accept these settings and continue with the installation.

or Click **< Back** to review and change any of the settings. If you use **< Back** to review or change any options, use **Next >** to return to this step and continue with the installation.

When you click **Next >** the installation program will start and copy the appropriate files for this installation.

11. Click **Finish**.
12. Exit the installation program and launch Data Synchronization Server.

    The first time you launch DSS a System ID Change dialog box will appear:



Sample System ID Change Dialog Box

When Data Synchronization Server is installed on any installation of TeleMagic, the System ID will no longer be accessible in Preferences. In the case of remote sites, you can edit this System ID through your site setup. Once Data Synchronization Server has been installed on the central installation, however, you will no longer be able to alter this System ID. The System ID Change dialog box will display the current System ID and give you a final opportunity to edit it, if necessary.

13. Click **OK** to accept the existing System ID.

or Enter a new System ID in the New System ID field and click **OK**.

A message will appear informing you that Data Synchronization setup is now complete, and that running a rebuild is recommended.

Click **OK** to acknowledge the message.

The Logon dialog box will open. Installation of your central location is now complete. You can configure other features on your central site now, or install your satellite and remote sites.

Opening Data Synchronization Server

To Open Data Synchronization Server:

Note: Access to Data Synchronization Server at the central location is limited to users belonging to the Supervisor security group in TeleMagic.

1. On the PC or a workstation attached to the network containing your central installation of TeleMagic, double-click the Data Synchronization Server icon. This icon will be located in the folder specified in the preceding procedure:

or From the taskbar, click **Start** and select **<u>R</u>un…** from the Start menu.

The Run dialog box will open.

2. In the <u>O</u>pen: field, enter the path to the file DSSERVER.EXE in the TeleMagic programs directory.

   Example: If the main TeleMagic directory is in the path F:\TM you would enter ***F:\TM\PROGRAMS\DSSERVER.EXE***.

3. Click **OK**.

   A Data Synchronization Server logon dialog box will appear.

4. Enter your TeleMagic User ID and password and click **<u>O</u>K**.

   The TeleMagic Data Synchronization Server - Central screen will open.

Setting Up the Central Site

Basic setup of your central site entails setting up your server(s) in the central site, identifying your remote locations, creating the user list for each site, establishing the databases you want synchronized, and deciding exactly what information from each of the databases should be included for each site.

Hint: If you will be setting up a large number of sites, it is recommended that you set up one site and perform a test synchronization to verify your settings before setting up all sites.

Setting Up Your Server(s)

Each remote site is only required to synchronize with the central or satellite installation. Depending on how often you need to update your data, you may only need to process any given site once a day (possibly even less frequently). At the remote sites, processing is a simple matter of clicking a button when you are ready to begin. The central and satellite sites, on the other hand, are required to process incoming and outgoing packets for every remote site attached to them. Depending upon the number of remote locations, this could be time consuming. To accommodate this, central and satellite installations use a server. The server allows you to define how and when processing occurs: you can have one server that processes continuously or only during a specified time each day; multiple servers performing specific synchronization tasks; or any other combination of settings to handle your specific synchronization requirements. This allows you the option of automating processing at the central and satellite installations; you can establish your server, start it processing, and leave it in process mode with the confidence that it will process exactly what you have specified.

To Set Up the Server:

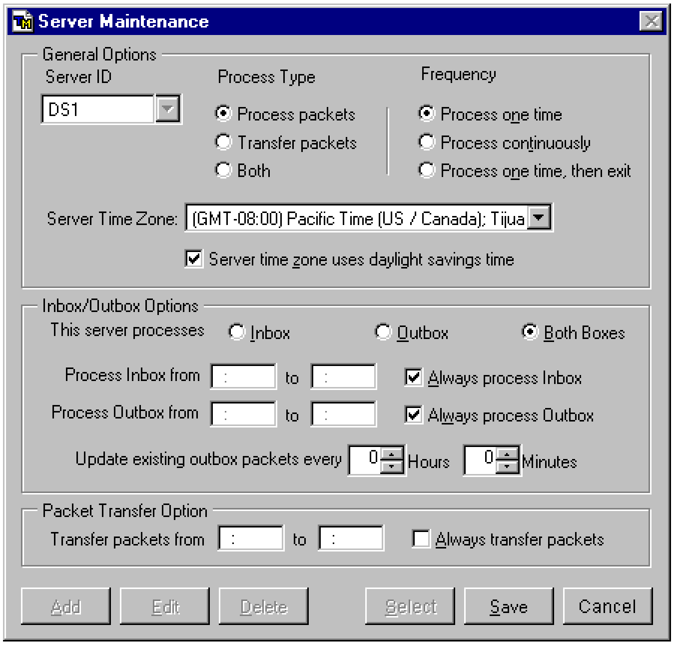
1. Open Data Synchronization Server at the central site.
2. From the Data Synchronization Server **Maintenance** menu, select **Server Maintenance**.

   The Server Maintenance dialog box will open.

   Data Synchronization Server comes with one default server already set up named DS1. With the default settings, whenever you process the central installation, the inbox and outbox will both be processed, then Data Synchronization Server will automatically exit process mode. If you use database synchronization infrequently and do not have any remote locations outside of your time zone, these settings will probably be appropriate for your synchronization needs.
3. To edit the existing server, use the Server ID drop-down list to highlight the server's three-character ID (if it is not already selected) and click **Edit**.

or To add a new server click **Add**.

The settings will become active and your cursor will appear in the Server ID field:



4. Edit the existing Server ID, if necessary.

or Add a new unique three-character Server ID.

5. Under Process Type specify what you want this server to do when it goes into Process mode:

   Select Process packets if you want this server to process packets without transferring them. If you have a method already in place for transferring packets between sites, select this option.

   Select Transfer packets if you want this server to transfer packets via FTP transfer or TeleMagic Internet Mail. For more information on packet transfer, see the *Packet Transfer Options* section of the *Power Features* chapter, later in this guide.

   > **Note:** If you select this option, you will need to set up another server to perform the task of processing packets.

   Select Both if you want this server to process and transfer packets.

6. Under Frequency specify how often the server will process:

   Select Process one time if this workstation will not be used exclusively for processing packets for database synchronization. If you do not have a large number of remote sites, or do not process frequently, you may not need to devote a workstation to acting as a server. If this is the case, select this option. When this is selected, after processing the inbox and/or outbox, process mode will shut down and you will be returned to the main TeleMagic Data Synchronization Server screen where you can exit Data Synchronization Server if necessary.

   Select Process continuously if this workstation will be used exclusively for processing packets for database synchronization.

   Select Process one time, then exit to have DSS automatically exit after processing.

7. Use the Server Time Zone: drop-down list to specify the time zone in which the central installation is located. The time zone for a satellite site is set in the Initialization screen at the central site for that satellite.

   > **Note:** Time zone is only an issue if you have remote locations outside of the central location's time zone. In this instance, Data Synchronization Server will take into account the difference in times when determining which is the most recent change to a record.

8. Use the Server time zone uses daylight savings time checkbox to specify whether the time zone selected in step 7 uses daylight savings time. If selected, Data Synchronization Server will adjust the time automatically when necessary.

   If you have selected the Transfer packets radio button in step 5, skip to step 13.

9. Use the This server processes options to select what the server processes. If you are establishing multiple servers that will be processing continuously you may want to devote different servers to performing different tasks. If you want the server to process the inbox (packets coming from the remote sites) exclusively, select Inbox. If

you want the server to process the outbox (packets to be distributed to the remote sites) exclusively, choose Outbox. If you want the server to process both the inbox and outbox, choose Both Boxes. (Use this option if this is your only server.)

Note: If you have selected the Transfer packets radio button in step 5, these options will be unavailable.

10. If you have set this server to process inboxes, you may want to limit the time that the server is available for processing the inbox. If so, unmark Always process inbox (if necessary) and enter the time span during which it should process the inbox in the Process Inbox from and to fields in 12-hour format, followed by an ***a*** for a.m. or ***p*** for p.m. (If you enter a time in 24-hour format, Data Synchronization Server will convert it to 12-hour format.) If you do not wish to limit the processing time, mark Always process Inbox.

    Note: If you do not mark Always process Inbox, and you do not set a time in the from and to fields, you will be prompted to set a time before saving the server.

    Note: If you have selected the Transfer packets radio button in step 5, or to process the outbox only in step 9, the Process Inbox fields will be unavailable.

    If the server is set to Process one time, then exit and you try to process at a time not included in the Process Inbox from and to times, the inbox will not be processed.

    During continuous processing, Data Synchronization Server will check the inbox for packets and process and delete the group of packets existing when it performed the check. If the server is not set to process outboxes, it will then check the inbox again for packets and repeat the process continuously during the time specified in the from and to fields. If the server is set to process outboxes, it will process the outbox, if necessary, then return to the inbox.

11. If you have set this server to process outboxes, you may wish to limit the time that the server is available for processing the outbox. If so, enter the time span during which it should process the outbox in the Process Outbox from and to fields in 12-hour format, followed by an ***a*** for a.m. or ***p*** for p.m. (If you enter a time in 24-hour format, Data Synchronization Server will convert it to 12-hour format.) If you do not wish to limit the processing time, mark Always process Outbox.

    Note: If you do not mark Always process Outbox, and you do not set a time in the from and to fields, you will be prompted to set a time before saving the server.

    Note: If you have selected to process inboxes only in step 6, the Process Outbox fields will be unavailable.

    If the server is not set up to continuously process and you try to process at a time not included in the Process Outbox from and to times, the outbox will not be processed. If the server is set to Process one time, then exit you may be informed that there is nothing to process and will be returned to the main TeleMagic Data

Synchronization Server screen. This will happen if you try to process at a time not included in either the Process Outbox from and to or the Process Inbox from and to times when you attempt to process.

During continuous processing, after the server processes the inbox (if applicable), it will then check the time in the Process Outbox from and to fields to determine if the outbox should be processed. If so, it will check the packet in the outbox for each site in turn and compare the last time each was processed to the time specified under Update existing outbox packets every. If an outgoing packet has not been processed in the specified time, it will be updated. If there is no existing packet for a site in the outbox, one will be created. When all sites have been checked and updated (if necessary), Data Synchronization Server will return to the inbox.

12. If a server will be processing outboxes, you can control how often the packets are updated with changes. Use the Update existing outbox packets every spinner arrows to set how often you want existing packets in the outbox updated. (This option allows you to update outgoing packets in the central location without overwriting them.) Packets will be updated with the following: transactions for linked activities, e-mail, contact record changes, system information, file sets, database files (including indexes, filters, views, field structure, and list boxes), security changes, and unlinked activities.

    Note: This option will be dimmed if you have the Transfer packets radio button selected under Process Type, or the Inbox radio button selected under This server processes.

13. If you have set this server to transfer packets, you may wish to limit the time that the server is available for transferring packets. If so, enter the time span during which it should transfer in the Transfer packets from and to fields in 12-hour format, followed by an ***a*** for a.m. or ***p*** for p.m. (If you enter a time in 24-hour format, Data Synchronization Server will convert it to 12-hour format.) If you do not wish to limit the time, mark Always transfer packets.

14. To save this server, click **Save**.

or To discard these edits and return to the server's original settings, or to not save the new server, click **Cancel**.

15. If you want to add or edit another server, repeat steps 3 through 14.

or Click **Close** to close this dialog box.

Establishing Server Options

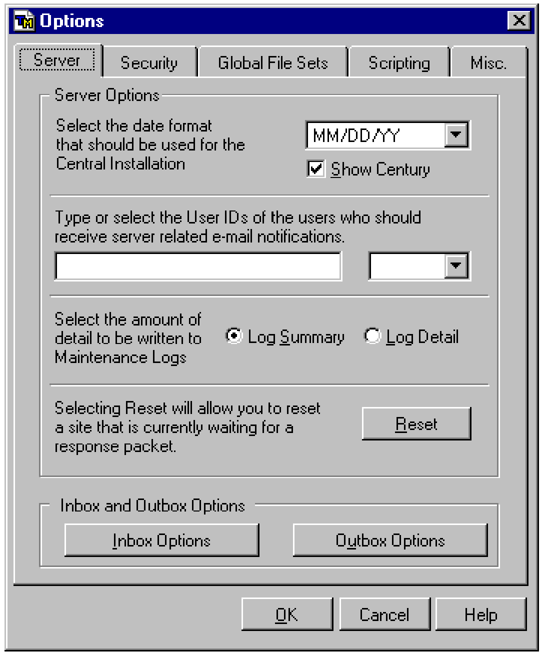
Server Options allow you to configure inbox, outbox, and general settings that will apply to all of the servers you have set up.

Hint: Determine how packets are going to be processed and distributed before establishing your Server Options.

To Establish Server Options:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open:



The Options Dialog Box

Once Data Synchronization Server is installed on an installation of TeleMagic, the date preferences will no longer be available in TeleMagic's Preferences. Setting the date preferences for remote sites is handled in each site's preferences. Setting the date preferences for the central site is handled in Server Options.

2. If you want to change the date format in use at the central installation of TeleMagic, select the appropriate date format from the drop-down list.

> **WARNING!** If you have been using the installation of TeleMagic with a different date format, changing the date format could result in inconsistent dates. This can especially be an issue in memo and Last Revision fields. See *Date Conversion* in the *Power Features* chapter for information on changing existing dates to the new format.

3. If you want date fields to display all four digits of the year, select the Show Century checkbox. (This is required if you have dates that extend beyond the year 2000.)

> **Note:** Checking Century On at the server will force Century On at the remote sites.

There will be occasions when Data Synchronization Server will need to notify someone about an event pertaining to synchronization. Establishing server operators allows you to specify who should receive e-mail notification when necessary.

4. Enter the three-character User ID of the user who should receive notification on server activity, when necessary. If you want to have more than one operator, enter each User ID separated by a comma.

or Select each User ID from the drop-down list. They will be added to the field.

When synchronization is performed, you can view a log detailing what was processed. You can control the amount of detail included in your logs.

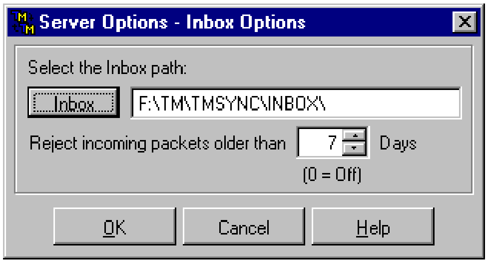
5. Select Log Summary if you would only like to include summary detail in the log, or select Log Detail if you want to include full details. (It is recommended that you view full details at first, or if you are experiencing any problems.)

Note: The **Reset** button is covered later in this guide.

Inbox Options allow you to control specifics of processing incoming packets at the server.

6. To set the inbox options, click **Inbox Options**.

The Server Options - Inbox Options dialog box will open:



Server Options - Inbox Options Dialog Box

This dialog box will display the default path to the existing \INBOX directory for the server. If you are using a communications program to transfer packets via modem, you may need to change the path to the inbox to a location accessible by that communications program. If you are using file transfer, this path will be referenced automatically.

7. If necessary, edit the path to your inbox in the **Inbox** field.

or Use the **Inbox** button to select the path from a Windows Select Directory dialog box.

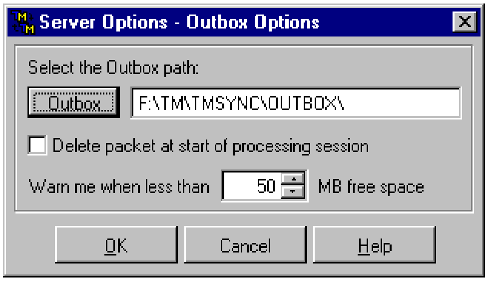
8. Use the Reject incoming packets older than spinner arrows to set the number of days old a packet can be before it will be rejected (not processed).

9. Click **OK** to save the Inbox options and return to the Options screen.

Outbox options allow you to control settings that relate to outgoing packets created by the central site.

10. To set the outbox options, click **Outbox Options**.

The Server Options - Outbox Options dialog box will open:



Server Options - Outbox Options Dialog Box

The Server Options - Outbox Options dialog box will display the default path to the existing \OUTBOX directory for the server. If you are using a communications program to transfer packets via modem, you may need to change the path to the outbox to a location accessible by that communications program. If you are using file transfer, this path will be referenced automatically.

11. If necessary, edit the path to your outbox in the **Outbox** field.

or Use the **Outbox** button to select the path from a Windows Select Directory dialog box.

12. Select Delete Packet at start of Processing session if you want Data Synchronization Server to delete any existing packets from a previous processing session. (This will only apply to servers that are set to process one time only. Packets will not be deleted for servers that are set to perform continuous processing.) When this is selected, if there is a packet remaining in the outbox, the next time you open Data Synchronization Server and select to process, it will be deleted before proceeding. Use caution when making this setting. If a packet is deleted that has not been received by the remote site, the information will not be synchronized. Only mark this if you have some system to ensure that packets are retrieved in a timely fashion.

Hint: It is recommended that users get in the habit of deleting the packets themselves as soon as they retrieve them to avoid any possible confusion. (If you are using FTP or Internet e-mail transfer, this will be handled automatically when the packet is transferred.)

Note: This will only occur when you have exited and re-opened Data Synchronization Server. If you simply stop processing to access Setup or Maintenance, your packet will not be deleted when you go into process mode again.

Note: There is a special type of synchronization called an initialization. Packets created for this type of synchronization will only be deleted when a response packet has been received from the remote site.

13. Use the spinner arrows to set the minimum free space required in the Warn me when less than field. You should allow approximately 50 MB of disk space, plus an additional 5 MB for each remote site for which the server will be required to create packets. If your free disk space goes below the specified minimum, Data Synchronization Server will stop processing.
14. Click **OK** to save the Outbox options and return to the Options dialog box.
15. When satisfied with your selections, click **OK**.

or Click **Cancel** to discard your changes and exit this dialog box.

Setting Up Your Sites

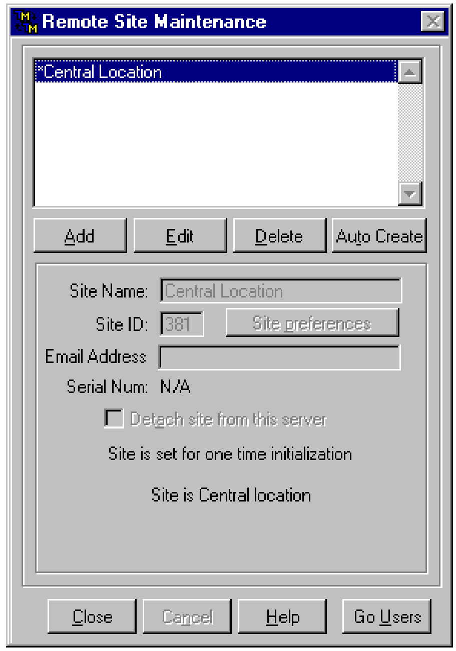
So that the central installation always remains in control of the synchronization process, remote sites are set up at the central location. Basic setup of the remote sites involves naming and assigning an ID for each site. Before proceeding, decide which remote installations of TeleMagic will be used in synchronization and note the System ID of each.

Note: If you want to check the System ID: from TeleMagic at each installation, select **System Information** from the **Help** menu. Select the System radio button. The System ID will be on the second line.

To Set Up Your Sites:

1. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open:



Remote Site Maintenance Dialog Box

2. Click **Add**.

   Note: You also have the option of using the Auto Create feature to create a site for each user that exists in the Central site. For more information, see the procedure *To Automatically Create Remote Sites*.

3. Enter a unique name for your remote location in the Site Name: field.

   Note: Your central location is distinguished by being preceded by an asterisk. To avoid possible confusion, you will not be able to use an asterisk as the first character in your remote site's name. The name 'Central Location' is reserved for the central site. You will not be able to assign this name to any other site.

4. Enter the System ID for the remote installation in the Site ID: field.

   Note: Although it is recommended that you use the site's System ID for the Site ID, it is not required. If you enter a Site ID other than the installation's System ID, Data Synchronization Server will change the site's System ID at the remote installation to match the Site ID when it performs the first synchronization. If you do not use the site's System ID for the Site ID, you will not be able to send the first packet to the site via FTP transfer.

   Note: You cannot use the same Site ID more than once, even if the site originally using the ID has been deleted. If you try to enter a Site ID that has already been used, a message will appear asking if you want Data Synchronization Server to generate a unique Site ID.

5. Enter the e-mail address for the site in the E-mail Address field if you have chosen Send via E-mail as your transport option.

   Note: Transport options are covered in detail in the *Packet Transfer Options* section of the *Power Features* chapter, later in this guide.

6. If the site was ever attached to this, or any other, server, mark the Site is being reattached to this server checkbox. More information on moving sites between servers can be found in the *Maintenance* chapter, later in this guide.

7. Click **Save** to save the remote site.

   Note: Options accessed from the **Site preferences** button are power features and are not necessary in basic setup. These options are covered in detail in the *Site Preferences* section of the *Power Features* chapter, later in this guide.

   Note: The first time a site is synchronized, Data Synchronization Server will perform an initialization by default. An initialization is a special type of synchronization that is used to prepare the remote installation for synchronization. The default initialization settings for a first time synchronization will locate the databases that will be used in synchronization and make sure that their structures (fields, views, list boxes, indexes, filters, and database preferences) match the structures in the central location. It will also transfer all of the contact records for those databases from the central site. If you want to use different initialization settings, see the *Initialization* section of the *Power Features* chapter later in this guide.

   Your new site will be added to the list.

8. Your new site will need at least one user. To add a new user, click **Go Users**.

   The Remote User Maintenance dialog box will open.

   Note: You can also access this screen by selecting **User Maintenance** from the **Setup** menu.

9. Select the site you will be adding users to from the Site: drop-down list.

10. If you are adding users who already exist at other sites, click **Auto Add**.

or To add users to the site who do not exist at any site, proceed to step 15.

   The Auto Add dialog box will open.

11. Select whether you will be choosing from users at the Central location only, or from all sites by clicking the appropriate button.

    The Select Users, or Select Central Users, to Add dialog box will open. If you have chosen to add users from the Central site only, the available users will be listed in the Central Users field. If you have chosen to add users from all sites, the available users will be listed in the Source Users field.

12. Click on one of the users from the list of available users to add to the remote site and click **Add**.

or To add all of the available users to the remote site, click **Add All**.

The User(s) will be added to the list of users in the Remote Users field. You can remove users from this list by clicking on the user to be removed and clicking **Remove**. You can remove all users from the list by clicking **Remove All**.

13. Click **OK** when you have added all required users for this site.

    The Select Users dialog box will close. The users currently assigned to the site will be listed on the Remote User Maintenance dialog box.

14. If you will be adding users who do not exist at any site, proceed to the next step.

or Proceed to step 19.

15. Click **Add**.
16. Enter the new user's ID in the User ID: field.

    Note: If the user ID entered here already exists, that user will be added to the list of users at the current site.

17. Enter the new user's name in the User Name: field.
18. Click **Save**.

    The new user will be added to the list of users at the current site.

19. Repeat steps 2 through 18, as required, for each remote site you want to set up.
20. When finished adding all of your remote sites, click **OK**.

    Note: If you have not selected a default user in Default Preferences, a message will appear giving you the opportunity to create a default user at this time. Click **Yes** to go to the Security page of the Options dialog box. If you do not set a default user, new users will be given default TeleMagic preferences and assigned to the "Supervisor Group – Do Not Delete" security group.

    You will be returned to the TeleMagic Data Synchronization Server main screen.

To Automatically Create Remote Sites

Hint: The Auto Create feature is useful if you are setting up laptop computers with installations of TeleMagic that need to be synchronized for multiple users.

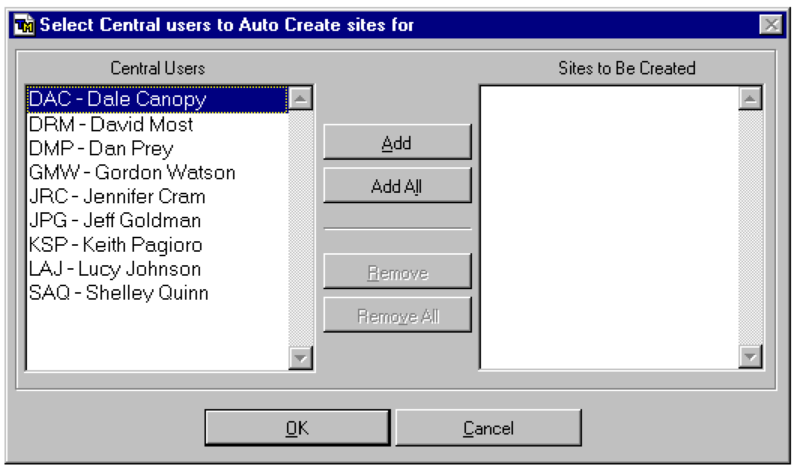
1. From the **Setup** menu, select **Site Maintenance**.

2. Click **Auto Create**.

   A message will appear informing you that only those users for whom you have not previously auto created a site will appear on this list.

3. Click **OK** to proceed.

   A Select Central Users dialog box will appear listing all of the users in your central site whose User IDs have not previously been used as a Site ID:



Sample Select Central Users Dialog Box

   A remote site will be added for each user you select at this dialog box. The site will be named after the user and the Site ID will be the user's TeleMagic User ID.

4. Select the user for whom you want to create a site in the Central Users list and click **Add**. The user will appear on the Sites to Be Created list on the right.

   Note: If a user's TeleMagic ID is already being used as a Site ID (or has ever been used as a Site ID), that user will not appear in the Central Users list. Once a Site ID has been used, it cannot be used again. If you are unable to access this dialog box, all of the central users' IDs have been (or are being) used as a Site ID.

or To create a site for each of the users at the central site, click **Add All**. All of the central users will move to the Sites to Be Created list on the right.

To remove a user, highlight that user in the Sites to Be Created list and click **Remove**. If you want to clear the Sites to Be Created list and start over, click **Remove All**.

5. Click **OK**.

   You will be returned to the Remote Site Maintenance dialog box and the sites will be added.

Editing the User List

Note: You must establish the user list before you can perform synchronization with a site.

Once you have established your remote sites, you need to set up user lists for each site. This list lets Data Synchronization Server know who belongs at each site. Whenever you perform synchronization from the central location to your remote sites, Data Synchronization Server will update the users existing at the remote site from this list, adding any users who do not exist. You also have the option of having Data Synchronization Server delete users who exist at the site who are not on the user list. In this way, the central installation maintains total control over the users existing in each installation of TeleMagic. When creating the user list, give consideration to the users who are regularly at the site, as well as those who may only occasionally need access to the site. If there is a chance that a user will be opening TeleMagic at that site, that user should be on the site's user list.

Note: A particular user can appear on any number of user lists.

To Create the User List:

1. From the Data Synchronization Server **Setup** menu, select **User Maintenance**.

   The Remote User Maintenance dialog box will open displaying all of the users in your central location:

Sample Remote User Maintenance Dialog Box

Note: The list of users in your central location is given for the purpose of reference only. You cannot add or delete users from the central location at this dialog box. Maintaining users in the central installation must be done from within TeleMagic.

2. From the Site: drop-down list box, select the first remote site you want to set up.

   The Remote User Maintenance dialog box will change to reflect the selected site's users.

   Note: If this site was created using the Auto Create feature, the user on whom the site was based will appear in this list.

3. If you want to copy users who already exist at other locations, click **Auto Add**.

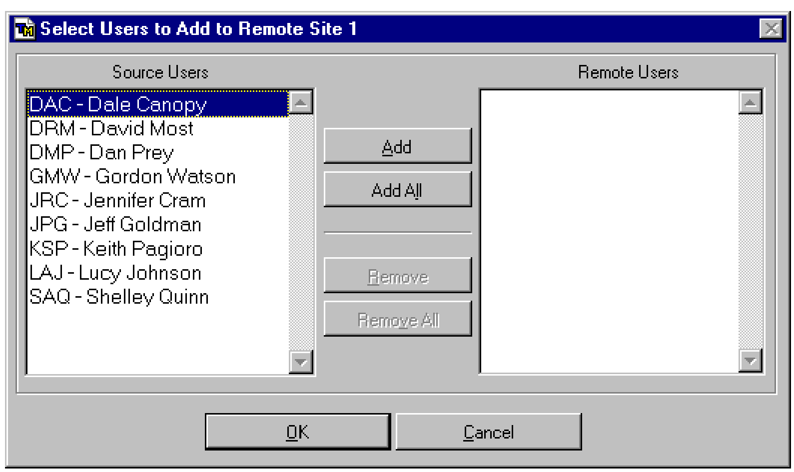
   An Auto Add dialog box will open:

Auto Add Dialog Box

4. If you want to select from users at the central location, click the **Central Only** button.

or If you have already established the user lists for other sites and would like to select from users at all sites, click the **All Sites** button.

A Select Central Users or Select Central and Remote Users dialog box will appear:



Sample Select Central Users Dialog Box

If you are selecting from central only, the Central Users list will display all users at your central location. If you are selecting from users at all sites, the Source Users list will display the entire list of users set up with Data Synchronization Server.

Note: If you are viewing the central users only and users have previously been added to the remote site's user list, they will appear in the Remote Users list *only* if they also exist in the central installation.

5. Highlight the first user in the list on the left whom you want in the remote site and click **Add**. The user will appear in the Remote Users list. (If you find you have added a user in error and wish to delete him or her from the list, highlight the user in the Remote Users list and click **Remove**.)

6. Repeat this process for each user you want in the Remote site.

or Click **Add All** to add all users to the remote site.

7. When satisfied with your selections, click **OK**.

   You will be returned to the Remote User Maintenance dialog box.

8. If you want to add a user who does not exist in the central installation or on another remote site's user list, click **Add**.

   Hint: You can also add users who do exist at other sites in this fashion, bypassing the Select Central Users dialog box. This is only recommended if you do not have a large number of users to add.

9. Enter the first user's ID as it is entered in TeleMagic in the User ID: field.

   Note: The user does not necessarily have to exist at the remote site (or the central site) to be added to the remote site's user list. If this is a new user, Data Synchronization Server will add him or her to the remote site during synchronization.

10. Enter the user's name in the User Name: field.

    Note: If you entered a User ID in step 9 that also exists at the central location, that user's name from the central location will automatically be entered in this field and the field will dim. If this is not the user you intended to use, you must assign that user a unique User ID. No two users can have the same ID, even if they exist at different sites. If you entered a User ID that has previously been used at another remote site but enter a different name, the user's name at the other site will be updated to reflect this change.

11. Click **Save**.

12. Repeat steps 8 through 11 for each user at that site.

13. Select each site in turn from the Site: drop-down list and repeat steps 3 through 12.

14. When finished setting up your lists for all sites, click **OK**.

Note: There is a site preference setting that allows your remote sites to update their user lists at the central site during synchronization with the users actually existing in the remote installation of TeleMagic. This is useful if you want to allow supervisor users the ability to add and delete users directly at the remote site without having those changes overwritten by the central user list during synchronization. Whether you use this preference or not depends on how much control you want to allow the remote site.

Choosing the Databases to Synchronize

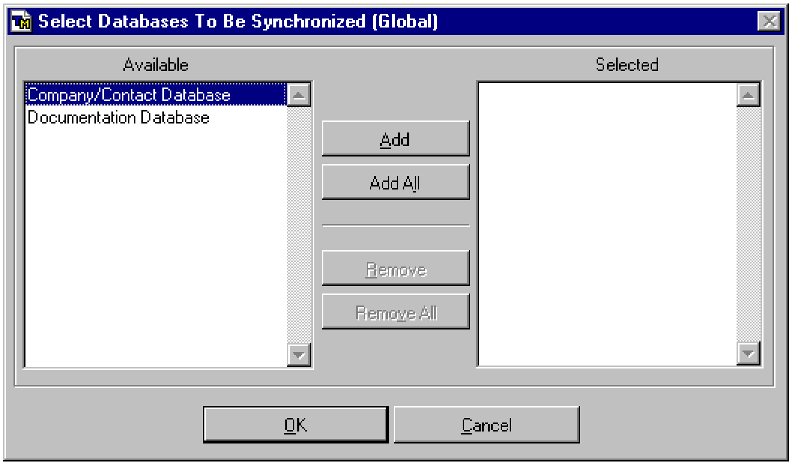
Once you have established your sites and selected the users for each, you are ready to decide what information should be synchronized. The first step in this process is selecting databases.

Note: The databases selected here will be used as a default for all sites, unless otherwise specified. You can include or exclude any of the databases for individual sites, if necessary.

To Select Databases for Synchronization:

1. From the Data Synchronization Server **Setup** menu, select **Databases to Synchronize**.

   The Select Databases To Be Synchronized dialog box will open with a list of all databases in your central installation:



Select Databases To Be Synchronized Dialog Box

Note: If you want to use a database that does not currently exist in the remote installation, you can have it added automatically on synchronization (as detailed below). If you want to use a database that exists in the remote installation, but does not currently exist in the central site, it must be added to the central installation from within TeleMagic.

2. From the Available list, highlight each database in turn that you want included and click **Add**.

or Click **Add All** to include all databases.

The database(s) will appear in the Selected list.

3. To remove a database, highlight it in the Selected list and click **Remove**.

or Click **Remove All** to clear the Selected list and start over.

4. When satisfied with your selections, click **OK**.

Note: Data Synchronization Server recognizes databases by name. You will not be able to change the name of a database in TeleMagic if that database is being used in synchronization. Although it is possible to change the name of a database that was previously used in synchronization but is not currently being used, it is not recommended that you do so. If you do, and that database is later synchronized again, errors may occur.

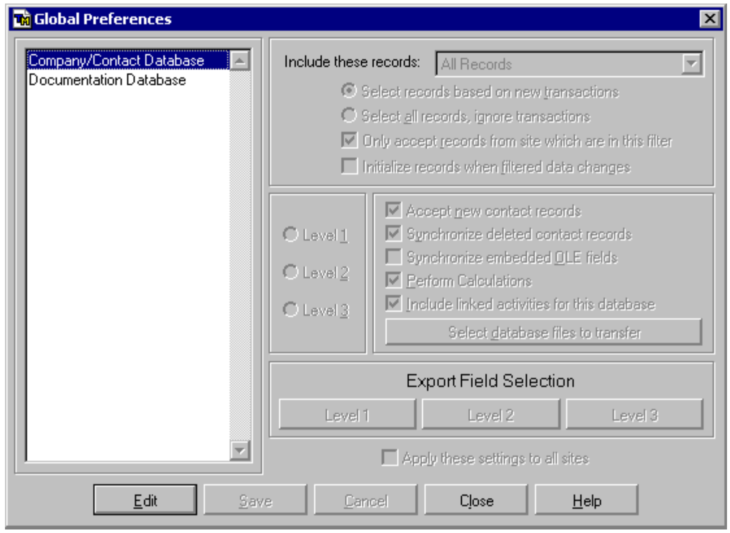
Controlling What is Synchronized

Once you have your databases selected, you can select what data is to be synchronized to those databases by establishing Database Preferences. Database Preferences allow you to control what information is passed, from an entire level down to individual fields. Setting preferences is a two step process involving creating the general settings, then establishing any needed exceptions to these settings for individual remote sites.

To Set Database Preferences:

1. From the Data Synchronization Server **Setup** menu, select **Database Preferences**.

The Global Preferences dialog box will open:



Global Preferences Dialog Box

This dialog box will display all of the databases that have been selected for synchronization.

2. Highlight the first database whose preferences you want to set and click **Edit**.

Note: The preferences established at this dialog box are in no way related to the Database Preferences accessed at the Preferences screen internal to TeleMagic. These preferences only deal with what information will be synchronized from the database.

The right side of the screen will become active.

3. If you want to synchronize only a select group of records, select a filter from the Include these records: drop-down list. Only records in that filter will be included in the outgoing packets for this database.

Note: This list will include all filters in the central installation. If you want to work only with a select group of records, make sure a filter exists in TeleMagic to isolate that group of records before accessing the Global Preferences dialog box.

Hint: If you create a field in TeleMagic to contain a Site ID, you can create a filter to only select records with the current site's ID in that field using the m.CSITEID variable. (**Example:** Contact1.siteid=m.CSITEID) This variable will instruct Data Synchronization to check the data in the field created to contain the Site ID (Contact1.siteid in the above example) and only include records in the filter if the data in the field matches the current site's Site ID.

Hint: If you are working with a very large database and are planning on synchronizing all records instead of synchronizing changed data only (see step 4, below), you can use a filtered index to dramatically speed up the process. If you want to create a filtered index for use with Data Synchronization Server, make sure you have the filter you want to use, then add an index in TeleMagic. At the Add Index dialog box, select the filter you want to use with the new index from the Index Filter list. Click **Edit** to open the Expression Builder. In the expression box (the text area where expressions are written), type **contactid** and save the expression. At the Add Index dialog box, mark the Case Sensitive checkbox and save the index. When you choose the filter that was used with this index at the Global Preferences screen, Data Synchronization Server will apply the filtered index instead of just using the filter.

4. The radio buttons allow you to control the degree of your synchronization.

   If you choose Select records based on new transactions, the outgoing packet will only include fields that have changed since the last synchronization.

   Note: There is an initialization setting to transfer contact and activity records that will ignore transactions when selected. If you are performing an initialization with this selected, it will override this setting. This is the default the first time a site is synchronized.

   If you choose Select all records, ignore transactions, the outgoing packet will include all records in the specified filter, regardless of whether or not they have been changed since the last synchronization. When the database is synchronized, Data Synchronization Server will compare the record in the database to the record in the incoming packet, and any differences will be treated like new transactions. (This is only applicable when synchronizing from the central or satellite installation to the remote sites. Synchronization from the remote sites to the central installation will always respect transactions. **Exception:** If the /ALLRECS parameter is used, the site will ignore transactions when synchronizing to the central.)

   Hint: If this is not the first synchronization for the site, and you have not changed the Site ID, this option can be used in place of an initialization if you want the data at the remote site to exactly match the central. (Make sure date and time validation is turned off.) Due to large packet sizes, it is not recommended that you use this for routine synchronization. Unless date and time validation is being used, there is greater potential for newer edits to be overwritten by older edits with this option. If you select this option, you should edit the setting to only include records based on new transactions as soon as it is no longer needed.

5. Mark the Only accept records from site which are in this filter checkbox to apply the selected filter both to records going from the central site to the remote sites, and to records coming from the remote sites to the central.

   Note: If a change is made to a record that takes it out of the selected filter, that change will be synchronized. Any future changes to a record that is no longer in the filter will not be synchronized.

or Unmark this checkbox if you want the filter to only apply to changes going from the central site to the remote sites. Any changes made at the remote site will be synchronized to the central site, whether or not the records are in the filter.

Hint: An example of where this would be useful is if your filter uses a date variable to only send changes made in the last week. Although the remote site does not need to be updated with changes older than a week, you may still want the central site to have changes made to all records at the site.

WARNING! Use caution when unmarking this setting, especially if you are not using date and time validation for the site(s). If this is not marked, the central site will be updated with changes to records that are not in the filter, but the remote site(s) will not be updated with changes made in central to these records. This could cause data in the central site to be overwritten. The ideal setup to avoid any possible confusion is to only have records at the remote site that are in the filter being synchronized, and to reinitialize the site if you ever change the filter.

If you have selected a filter and are synchronizing based on new transactions, there is a possibility that records could be created with data in only one or two fields. This occurs when a change is made to a record at the central site that moves the record into the filter being synchronized. If the record does not already exist at the remote site it will be added, but only the fields for which there were transactions (the changed fields) would be available for synchronization into the new record.

For example, you may have several sales representatives working with TeleMagic on laptops. You may assign records to each sales representative using a Rep ID field and filter on that field for synchronization. When a record is first added, if it has not been assigned to a representative, it may be added with no data in that field. It would not at first be included in any of the filters being used at any sites, and the initial creation of the record would not be synchronized. When the field is later changed to assign the record to a representative, a transaction will only be written for the change to that field. The representative would receive the record, but there would be no data aside from his or her ID in the Rep ID field.

You have the option to send the entire record, along with its parent record(s), any time a change is made to a field referenced in the synchronization filter.

6. If you want to initialize records when the information in the filter fields changes, mark the Initialize records when filter data changes checkbox. Be aware that this will cause a transaction to be written for every field in the record. If you are using

date and time validation, and a change comes in from a remote site that was created prior to the change in the filter field, the central site will not be updated with that data.

or If you do not wish to automatically initialize records when the data in filter fields changes, unmark this checkbox.

Hint: If you do not select this option, you can use the **Record Initialization** option on TeleMagic's **Contact Utilities** menu to send the record and its parent record(s). This option further allows you the option of including related child and activity records as well.

WARNING! The following option may adversely affect TeleMagic's performance under some circumstances.

7. Mark Initialize children when parent's filter data changes if you want child records to be initialized whenever the parent record is initialized and filter data changes.

8. From the level radio buttons, select the lowest database level you want included in the synchronization. All higher levels will also be included. For example, selecting level 2 will include levels 1 and 2, but not 3.

   Note: If a level is not active in this database, the button for that level will be dimmed.

9. Mark the Accept new contact records checkbox if you want contact records added in one installation also added to the others. Unmark this if you want users to manually add new contact records at each installation.

10. Mark the Synchronize deleted contact records checkbox if you want contact records deleted in one installation also deleted in the others. Unmark this if you want users to manually delete contact records that need to be removed from each installation.

11. Select Synchronize embedded OLE fields if you want to be able to include changes to your embedded OLE objects in the synchronization. Be aware that due to the amount of data contained in an OLE object, synchronizing these objects can significantly increase your packet size.

    Note: This option only includes embedded objects. Linked OLE objects will not be included.

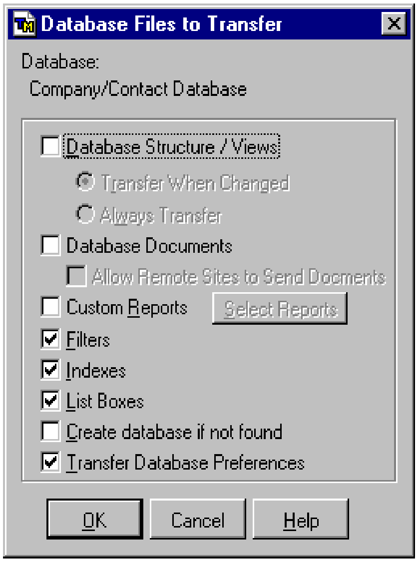
12. Mark Perform Calculations if you want calculated fields to be evaluated when synchronization is performed. If this option is not marked, calculated fields will not be immediately evaluated. This option is ignored when initializing with the Transfer contact and activity records option selected.

13. If you want to include activities linked to contact records in this database, mark the Include linked activities for this database checkbox.

Note: There is also a site specific setting to include linked activities that allows you to further filter activities. When synchronization is performed, Data Synchronization Server will first check the site preference to determine if the site should receive any linked activities; then, if so, it will check this setting for each database.

14. Click **Select database files to transfer** to select which structural changes you want synchronized from the central installation to the remote sites.

    The Database Files To Transfer dialog box will open:



Database Files To Transfer Dialog Box

Note: Selecting all of the options at this dialog box will duplicate the effects of performing an initialization that performs a complete database file transfer. This initialization option is selected by default for the first synchronization and will override any individual settings you make at this dialog box.

WARNING! Most of the options selected from this dialog box will totally overwrite existing data in the remote location. Consider your selections carefully. Remember, you can always select an option when needed, such as when a database is first added or if significant changes have been made to a database, then de-select it for routine synchronization.

15. To synchronize structure (field definitions) and views (the appearance of the contact page), mark the Database Structure / Views checkbox. If you do not wish to synchronize structure and views, proceed to step 17.

    The radio buttons will become available.

Hint: If you are making drastic structural changes to your remote sites from your central installation, consider also overwriting indexes at the remote location (see step 18, below). If you do not, the site may include indexes based on fields that no longer exist.

16. If you want only to include the structure and views in a packet when these items have been changed at the central site or satellite site, select the Transfer When Changed radio button. (Structural changes made at a satellite site will only affect remotes attached to that particular satellite.)

    Hint: Selecting this option will result in smaller packet sizes and shorter processing times. It will also allow users at the remote sites (and satellite sites if this is selected at the central) to make changes to the database structure and views without having those changes overwritten every time the site is synchronized. (Changes will only be overwritten at the remotes and/or satellites when the structure or views are changed at the server.)

or If you want to transfer the structure and views with every packet whether there have been changes or not, select Always Transfer.

Hint: Selecting this option will ensure that the structure and views at the remote sites (and satellite sites if this is selected at the central) remain exactly the same as the server. Any time a change is made, it will be overwritten on the next synchronization.

17. If you want to synchronize documents, mark Database Documents. When this option is selected, documents that have been identified for synchronization will be updated whenever content or other factors related to the document, such as description and link information, are changed. When this checkbox is marked, the Allow Remote Sites to Send Documents checkbox will become available. If Allow Remote Sites to Send Documents is not marked, documents will only be synchronized from the Central site to the remotes. Otherwise, if Allow Remote Sites to Send Documents is marked, documents will be synchronized in both directions. If a document is moved into or out of a folder, it will be added or deleted at the other sites as appropriate.

    Select which documents are to be synchronized in Enterprise. To select an existing document for synchronization, open the **Write** menu and select **Word Processing**. Select the document to be synchronized from the tree view and click **Change**. On the Change Document Description dialog box, mark Synchronize this Document. When this checkbox is marked, additional options will become available that allow you to restrict who can modify the document. Your choices are: Everyone, the Originator and supervisors, and only the Originator.

18. Mark the Custom Reports checkbox if you want custom reports from the central installation synchronized with custom reports at the remote sites. When you mark this checkbox, the Select Reports button becomes available and you can select which reports you want synchronized with the remote sites.

19. Mark the Filters checkbox if you want the list of filters in the central installation synchronized with the list of filters in the remote sites. Filters from the central site will be added to those already existing at the remote site. If two filters have the same name, the filter at the remote site will be overwritten. Unmark this checkbox if you do not wish to synchronize filters. (If this is not marked, remote sites will not receive any filters created in the central installation.)

20. Mark the Indexes checkbox if you want the list of indexes in the central installation to overwrite the list of indexes in the remote sites. Leave this unmarked if you want the remote users to be able to create their own indexes without having them get overwritten. (If this is not marked, remote sites will not receive any indexes created in the central installation.)

21. Mark the Listboxes checkbox if you want the list boxes in the central site to overwrite any list boxes in the remote sites. Leave this unmarked if you want the remote users to be able to create their own list boxes without having them get overwritten. (If this is not marked, remote sites will not receive any edits to list boxes from the central installation.)

    Note: Only list boxes stored in the database directory will be synchronized. Users must have their TeleMagic Directory preferences set to use list boxes stored in the database directory in order to access these list boxes. If they are using global or user specific list boxes, their list boxes will not be affected.

22. Mark Create database if not found if you want Data Synchronization Server to add the database to the remote sites if it does not exist. (TeleMagic Preferences for this database, such as key fields and level names, will also be added.) Unmark this if you do not want databases added through synchronization.

    Note: Be aware that if this is marked and users intentionally delete the database at the remote site, it will be re-added. If you want to allow users to remove databases, be sure this is unmarked.

    Note: If this option is marked, but Database Structure/Screens is not marked, a blank database will be added.

23. Mark Transfer Database Preferences if you want to overwrite internal TeleMagic database specific preferences with the database specific preferences in the central location.

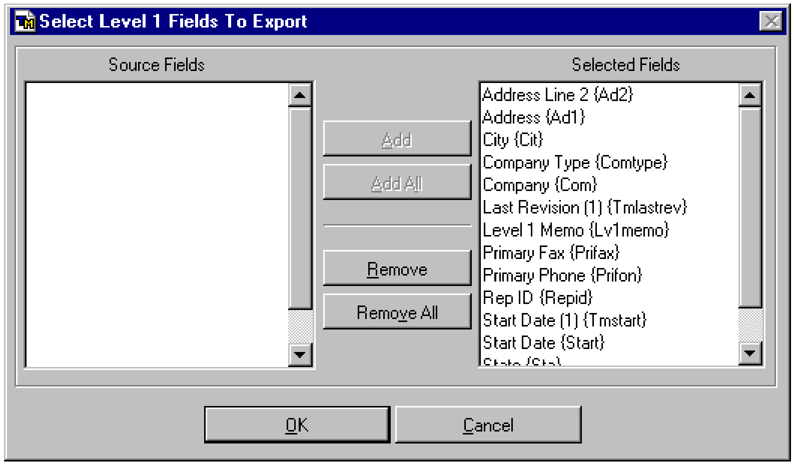
24. Click **OK** to save your settings.

    You will be returned to the Global Preferences dialog box.

    By default, all fields in the selected levels of the specified database will be included in the synchronization. It is possible to exclude specific fields if necessary.

25. If you want to exclude a field from the list of fields to be synchronized, click the level button on which the field(s) is located in the Export Field Selection section.

The Select Fields To Export dialog box will open for the selected level:



Sample Select Level 1 Fields to Export Dialog Box

The Selected Fields list will default with all fields for the selected database level.

Note: OLE fields are not included on this list. Synchronizing OLE fields is controlled using the Synchronize embedded OLE fields checkbox on the main Global Preferences screen.

26. Highlight the first field you want to exclude and click **Remove**. To clear the Selected Fields list, click **Remove All**.

    If you remove a field in error, highlight it in the Source Fields list and click **Add**. To include all fields, click **Add All**.

27. When satisfied with your selections, click **OK**.

or Click **Cancel** to discard your selections.

You will be returned to the Global Preferences dialog box.

28. Repeat steps 25 through 27 for the remaining levels in your database if necessary.

Note: You will only be able to access the list of fields up to the database level selected in step 8, above.

It is possible to establish separate database preferences for your sites. If this occurs, those sites will no longer automatically receive any edits you make to the global preferences. If you are creating settings that need to be received by all sites, including those no longer recognizing the global preferences, you can apply the current settings to all sites.

29 If you have previously set separate site database preferences for any of your installations and would like to apply any edits you are making to the global

preferences to these sites, mark Apply these settings to all sites. (If this is a first-time setup, you should not have to use this checkbox. This is also not necessary if you have not unlinked any sites from the global settings.)

30. When satisfied with your selections, click **Save**.

or Click **Cancel** to discard your changes.

31. Repeat steps 2 through 30 for each database whose preferences you want to set.

or Click **Close** to close this dialog box.

Note: If you do not select a database, the default preferences will be applied.

Creating Unique Settings for Sites

Not all sites will necessarily need to receive the same information. For example, you may want to limit the information synchronized to your remote laptop users, but need complete synchronization with your satellite office. Once you have established defaults for the information that should be synchronized to most of your sites, you can establish unique settings for individual sites. The Site Specific Setup options allow you to create exceptions to your global settings which get applied to an individual site.

Note: Creating a unique setting for a site unlinks the site from the Global Preferences. If you later edit your Global Preferences, all sites that have not been unlinked in this manner will automatically receive those changes. If you want those changes to also be applied to sites for which you have unique settings, you must use the Apply these settings to all sites feature in Global Preferences. Be aware that if you do not wish *all* sites to receive these edits, you will have to enter them manually in the appropriate sites' preferences.

To Determine Which Databases are Synchronized:

1. From the Data Synchronization Server **Setup** menu, select **Site Specific Setup**.

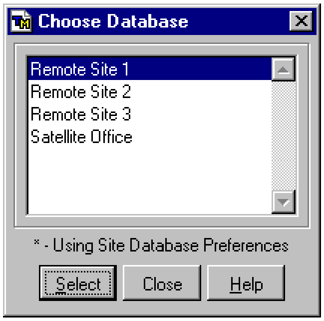
   The Site Specific Setup menu will open.

2. Select **Databases To Synchronize**.

   A message will appear advising you that any sites that do not read Global Database Preferences will be preceded by an asterisk on the list.

3. Click **OK** to acknowledge the message.

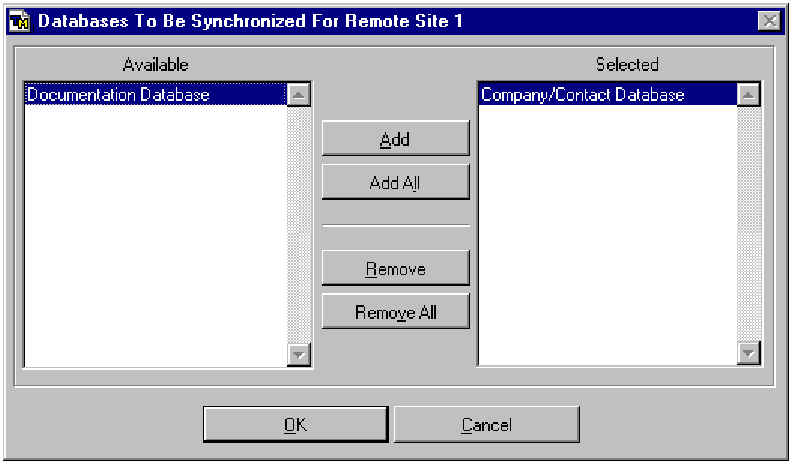
   A Choose Site dialog box will open with a list of your sites:



Sample Choose Site Dialog Box

4. Highlight the site you want to set up and click **Select**.

   The Databases To Be Synchronized dialog box will open with the name of the site you selected in the title bar:



Sample Databases To Be Synchronized Dialog Box

   This dialog box will display the databases available for synchronization in the Available list, and the databases selected for use in the Selected list.

5. To select a database, highlight it in the Available list and click **Add**.

or To remove a database from the synchronization process, highlight it in the Selected list and click **Remove**.

6. When satisfied with your selections, click **OK**.

   A message will appear notifying you that this action will unlink the site from the Global Database Preferences and asking if you want to proceed.

7. Click **Yes** and the site will be unlinked.

or Click **No** to cancel.

The Choose Site dialog box will re-open.

8. Select another site and repeat steps 4 through 7.

Note: Even if the site will be using the same databases as the global selections, you must access the Databases To Be Synchronized dialog box for the site and click **OK** to accept the list of databases. This action unlinks the site from the global preferences in preparation for setting unique database preferences.

9. Click **Close** to accept changes and exit this dialog box.

You will be returned to the TeleMagic Data Synchronization Server main screen.

To Set Database Preferences for Specific Sites:

1. From the Data Synchronization Server **Setup** menu, select **Site Specific Setup**.

The Site Specific Setup menu will open.

2. Select **Databases Preferences**.

A message will appear advising you that any sites that do not read Global Database Preferences will be preceded by an asterisk on the list.

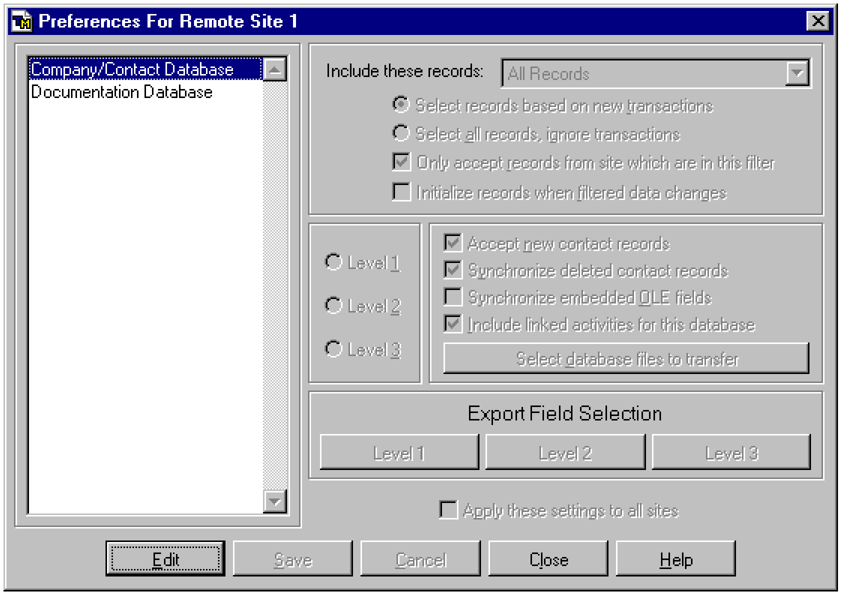
3. Click **OK** to acknowledge the message.

A Choose Site dialog box will open with a list of your sites.

4. Highlight the site you want to set up and click **Select**.

Note: If you highlight a site that has not been unlinked from the global preferences you will receive a message informing you that this must be done before accessing database preferences for the site. You will be given the option of accessing the Databases To Be Synchronized dialog box at this time to unlink the site. Select **Yes** and refer to the procedure above. (If you select **No** you will not be able to access Site Database Preferences for this site.)

The Site Database Preferences dialog box will open with the name of the site whose settings you are establishing in the title bar:



Sample Site Database Preferences Dialog Box

If the selected database is being synchronized with the Central site, this dialog box will default to the Global Preferences settings.

5. Highlight the database whose settings you want to change and click **Edit**.
6. Edit these preference settings as required.
7. When satisfied with your selections, click **Save**.
8. Select the next database and repeat steps 5 through 7.

or Click **Close** to return to the Choose Site dialog box.

Note: Once a site is unlinked from the global preferences, all of the databases for that site will be unlinked whether or not you edit a database's preferences.

9. Select another site and repeat steps 4 through 8.

or Click **Close** to return to the TeleMagic Data Synchronization Server main screen.

Setting Up a Satellite Server at the Central Site

Marking a Site as a Satellite

Although the central site does not communicate directly with a satellite's remote sites, it does need to be aware of those sites when synchronizing activities and e-mail. Users at a satellite server's remote site will be included in the central user list and will be able to receive activities and e-mail from any other site in the network. Also, the central site maintains a list of all sites with their Site IDs and serial numbers to avoid conflicts among the remotes. Therefore, the central site needs to know which of its remotes are satellite sites.

To Set Up a Satellite at the Central Site:

1. Open Data Synchronization Server at the central site.
2. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

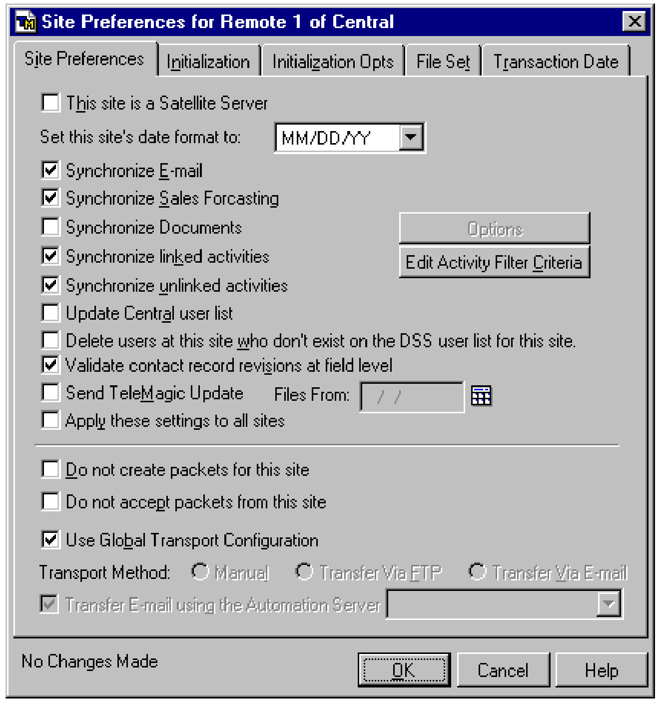
   The Remote Site Maintenance dialog box will open.
3. Add a new remote site.

or Highlight an existing site and click **Edit**.

> **Note:** If you are converting a remote site to a satellite site, you must also run the conversion at that installation.

4. Click **Site preferences**.

   The Site Preferences dialog box will open:



Sample Site Preferences Dialog Box

5. Mark the This site is a Satellite Server checkbox.

   Note: The remainder of the options on this dialog box pertain to how the central site will communicate with the satellite. They have no affect on how the satellite communicates with its remotes.

6. Click **OK** to save the Site Preferences.

7. Click **OK** to save the site.

Basic Central Setup is Complete

This completes the basic setup of the central site. Before you can perform synchronization, you should install Data Synchronization on your remote installations.

Note: If you will be using any power features, you can set them up before exiting central setup.

Setting Up the Satellite Site

Setup Steps

Setting up the satellite is very similar to setting up the central site. Just as setup at the central site includes creating server settings and specifying what information should be synchronized with the central's remote sites, setup at the satellite includes server setup and specifying what information should be synchronized with the satellite's remote sites. There are only a few special setup requirements that are not issues at the central site.

Use the following steps when setting up your satellite site:

1. Install the satellite server on the installation of TeleMagic that will be your satellite site. Or, if you are already using Data Synchronization Server, you can upgrade an existing remote to a satellite.
2. Set up synchronization with your central site. In some situations the satellite site will need to synchronize with its remote sites more frequently than it synchronizes with the central site. Data Synchronization Server accommodates this by allowing you to specify when and how the central is synchronized.
3. Add your remote sites. If this is a new installation of TeleMagic, you will simply need to add remote sites at the satellite site.
4. Synchronize once with the central office to verify your Site IDs. This informs the central site of the remotes you have added at the satellite site and verifies that there are no conflicts with existing remotes.

Installation of the Satellite Server

You can install the satellite server on any installation of TeleMagic V5 or later that has not already been installed as a central site. You can either perform first time installation as a satellite site, or upgrade an existing remote to a satellite.

To Install the Satellite Server:

1. On the PC or network containing the installation of TeleMagic Enterprise V5 that you will be using as your satellite installation, make a note of the path to your TeleMagic installation and the Windows Program Folder containing your TeleMagic icons.
2. Insert the installation CD-ROM in your CD-ROM drive.
3. The setup program will launch.

or If the setup program does not automatically launch under your workstation configuration in Windows, select **Start**, **Run** from the taskbar to open the Run dialog box. In the Open: field type D:\SETUP.EXE (where D: is the drive letter of your CD-ROM drive) and click **OK**.

The TeleMagic Setup screen will open.

4. Click the **Install/Upgrade TeleMagic Data Synchronization** button.

   The Welcome screen will open.

5. Carefully read the Welcome screen and follow any instructions given, then click **Next>**.

   The Select Data Synchronization Type screen will open.

6. Select the TeleMagic DSS Satellite radio button and click **Next** >.

   The Choose Destination Location screen will open.

7. If the default directory offered is not correct, click **Browse...** to locate the directory from a Choose Directory dialog box. When you have selected the directory, click **Next >**.

   A screen will appear showing the default TeleMagic Program Folder to hold the Data Synchronization Server icons.

8. Click **Next >** to accept this Program Folder.

or If this is not the correct Program Folder, select the correct Program Folder containing your TeleMagic icons from the Existing Folders list. When you are satisfied with your selection, click **Next** >.

or Enter the name of a new Program Folder and it will be created. When you are satisfied with your selection, click **Next** >.

A screen will appear showing all of the current settings that you have selected for this installation.

9. Click **Next >** to accept these settings and continue with the installation.

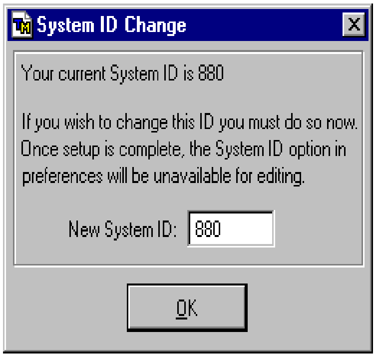
or Click **< Back** to review and change any of the settings. If you use **< Back** to review or change any options, use **Next >** to return to this step and continue with the installation.

When you click **Next >** the installation program will start and copy the appropriate files for this installation.

10. Click **Finish**.

11. Exit the installation program and launch TeleMagic Satellite Server.

    The first time you launch Satellite Server a System ID Change dialog box will appear:



Sample System ID Change Dialog Box

When the satellite site is added at the central site, it is assigned a Site ID. As soon as a packet is transferred to the satellite from the central, that Site ID will be given to the satellite. This will overwrite the satellite's current System ID if it is different. If you will be adding records at the satellite before you synchronize for the first time with the central, you should make sure that the site's System ID matches the Site ID that was assigned at central.

12. Enter the Site ID that was assigned at the central in the New System ID field and click **OK**.

or If you do not know the Site ID that was assigned at central, *and you will not be adding records at the satellite before you perform synchronization with the central*, click **OK** without changing the System ID.

WARNING! If you will be adding records, you should contact the Data Synchronization Server administrator at the central site and get the Site ID that was assigned to this satellite. If you do not, the site's System ID may be a duplicate with an existing Site ID. Adding records in this instance will result in duplicate Contact IDs. Records with invalid Contact IDs will not be processed by DSS. If any records are skipped, this will be noted in the Maintenance Log.

A message will appear informing you that Data Synchronization setup is now complete, and that running a rebuild is recommended.

Click **OK** to acknowledge the message.

The Logon dialog box will open. Log on to Data Synchronization Server and proceed with Setup.

Setting up Satellite Synchronization with the Central Site

Note: This setup only includes server settings. All other settings that are used when synchronizing the satellite with the central are established at the central site.

One main difference between the central site and a satellite site is that the central is only concerned with synchronization back and forth between itself and the sites that are directly attached to it. The satellite server is concerned with synchronization back and forth between itself and its remotes, as well as synchronization back and forth between itself and the central. You may or may not want to process for the central site each time you process the satellite's remotes. Data Synchronization Server accommodates this by providing separate setup for synchronization with the central.

Non-supervisor users will be able to access the server at satellite offices. They will have access to the **Process** button, server selection, and maintenance logs. Non-supervisors will not be able to edit any settings or access the Setup screens.

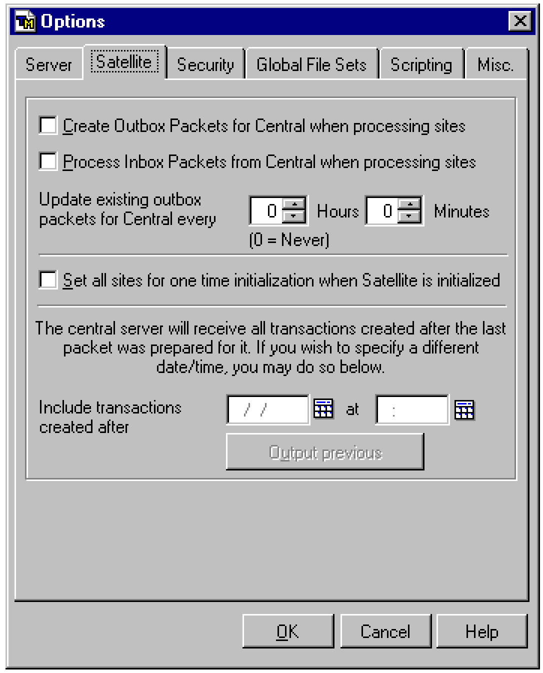
To Set Up Synchronization with the Central:

1. Open Data Synchronization Server at the satellite site.
2. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

   Note: The Server Options on this screen and on the screens accessed from the **Inbox Options** and **Outbox Options** buttons pertain to servers processing for the remote sites.
3. To create settings for processing the central site, click the **Satellite** tab.

   The Satellite page will open:



Options Dialog Box – Satellite Page

In the TeleMagic Data Synchronization Server **File** menu at the satellite site, there is a selection for **Process** and another for **Process Central**. The **Process Central** option will only process inbox and/or outbox packets for your central site. By default **Process** will only process inbox and/or outbox packets for your remote sites. If you do not want to process the central and remotes separately, you can use the Satellite settings to include the central site when processing the remotes. You have the further flexibility of selecting what gets processed for the central when the remotes are processed.

4. If you want to create an outbox packet to be sent to the central site when your remote sites are processed, mark Create Outbox Packets for Central when processing sites.

or If you only want an outbox packet created for central when you process using the **Process Central** menu selection, unmark this checkbox.

5. If you want to process any inbox packet received from the central when processing the remote sites, mark Process Inbox Packets from Central when processing sites.

or If you only want inbox packets from central processed when you use the **Process Central** menu selection, unmark this checkbox.

If you have a packet for central in the outbox, you can control how often it gets updated with changes.

6. Use the Update existing outbox packets for Central every spinner arrows to set how often you want existing packets for central in the outbox updated. (This option allows you to create a packet, then update it with new data the next time the outbox is processed without overwriting it.) Set both the hours and minutes to zero if you do not want outbox packets for central updated. The outbox will only be processed if the previous packet has been removed from the outbox.

Note: This option will be applied whenever the outbox is processed for central, whether you are processing using the **Process** option or the **Process Central** option.

Note: This only applies to outbox packets for central. Updating outbox packets for the remote sites is controlled using the Update existing outbox packets every option on the Server Maintenance screen. The option on the Server Maintenance screen only relates to remote sites. It will not affect outbox packets for the central site.

7. If you want to automatically set the satellite's remote sites for initialization whenever the satellite is initialized from central, mark the Set all sites for one time initialization when Satellite is initialized.

Note: If you select this option, it will only set the sites for initialization. It will not change the initialization options that are currently established for the site. If an initialization option was used for the satellite that is not currently being used for a remote site, you will have to go to the site and select that option.

or Unmark this checkbox if you want to manually set the remote sites for initialization when necessary.

If you are synchronizing based on transactions, each time the server processes a site it looks for the date and time that a packet was last created for that site. The next packet will only include transactions entered after that date/time. If you need to include transactions prior to this, you can do so by specifying the transaction cutoff date and time. You are able to set a transaction cutoff date for any of your remote sites using Site Preferences. If you need to set a transaction cutoff date for your central site, you may do so at this dialog box.

8. Enter the date and time of the oldest transactions you want included in the next outbox packet for central.

or If you want to resend the transactions that were included the last time the outbox was processed, click **Output previous**. A message will appear informing you of the date and time of the last transactions that were processed and asking if you want to use this as your transaction cutoff date. Select **Yes** to use those transactions. The date and time will appear in the Include transactions created after fields. You may edit the fields as necessary.

9. When you are satisfied with your Satellite settings, click **OK**.

Basic Setup of the Remote Installation

Data Synchronization Server maintains primary control over all sites at the central location. During basic setup of your central and/or satellite site, you should already have performed much of the setup required for your sites, such as giving each site a unique Site ID, setting up your user lists, and deciding what information should go to each site.

In addition to the setup at the central and satellite sites, there are a few basic setup options which must be identified at each remote site. You must install the Data Synchronization Server remote site software on each site's installation of TeleMagic Enterprise V5, establish in what time zone each site is located, and (optionally) specify the directories you want to use as each site's inbox and outbox.

Note: In addition to remote site installation, this section covers setting a path for your inbox and outbox and defining the site's time zone. You do not necessarily have to edit these settings at this time. Data Synchronization Server offers a default path for the inbox and outbox that does not need to be adjusted unless you want to specify a different path. Also, it is possible to define the time zone from the central installation and synchronize it to the site during initialization; therefore, if you will be performing an initialization, setting the time zone is not required at this time.

Note: This section only covers basic setup at the remote site.

Installing Data Synchronization on Your Remote Sites

By this time you should have already decided how many installations of TeleMagic Enterprise V5 you will be using as remote sites. For example, you may have four field representatives who will be taking databases on the road with them, and one remote office at a fixed location. In this example you should already have five installations of TeleMagic on the appropriate laptops and network (or PC). You can now install the remote site software on each of these sites.

To Install Data Synchronization Server on Your Remote Sites:

1. On the PC or network containing the installation of TeleMagic Enterprise V5 that you will be using as your remote installation, make a note of the path to your TeleMagic installation and the Windows Program Folder containing your TeleMagic icons.
2. Insert the installation CD-ROM in your CD-ROM drive.
3. The setup program will launch.

or If the setup program does not automatically launch under your workstation configuration in Windows, select **Start**, **Run** from the taskbar to open the Run dialog box. In the Open: field type D:\SETUP.EXE (where D: is the drive letter of your CD-ROM drive) and click **OK**.

The TeleMagic Setup screen will open.

4. Click the **Install/Upgrade TeleMagic Data Synchronization** button.

   The Welcome screen will open.

5. Carefully read the Welcome screen and follow any instructions given, then click **Next>**.

   The Select Data Synchronization Type screen will open.

6. Select TeleMagic DSS Remote to install the remote site.
7. Click **Next >**.

   The Choose Destination Location screen will open.

8. Enter the main TeleMagic directory (the directory where your TeleMagic files are stored) in the field, or click **Browse...** to locate the directory from a Choose Directory dialog box. When you have selected the directory, click **Next >**.

   A screen will appear showing the default TeleMagic Program Folder to hold the Data Synchronization Server icons.

9. Click **Next >** to accept this Program Folder.

or If this is not the correct Program Folder, select the correct Program Folder containing your TeleMagic icons from the Existing Folders list. When you are satisfied with your selection, click **Next >**.

or Enter the name of a new Program Folder and it will be created. When you are satisfied with your selection, click **Next >**.

A screen will appear showing all of the current settings that you have selected for this installation.

10. Click **Next >** to accept these settings and continue with the installation.

or Click **< Back** to review and change any of the settings. If you use **< Back** to review or change any options, use **Next >** to return to this step and continue with the installation.

When you click **Next >** the installation program will start and copy the appropriate files for this installation.

11. Click **Finish**.
12. Exit the installation program and launch Data Synchronization Server.
13. Repeat steps 1 through 12 for each remote installation you want to set up.

Hint: If you are working with multiple sites, when installing Data Synchronization Server on these remote installations of TeleMagic, it is highly recommended that you maintain some type of system to identify which installation corresponds to each site you have set up. This is useful during the first synchronization if you have multiple sites, as it helps avoid potentially sending a particular site's packet (the file containing the data that needs to be synchronized and which is labeled by the Site ID) to the wrong site. When you were setting up the sites at the central installation, it was recommended that basing the Site ID on the System ID of the corresponding remote installation control this. If you did not select to use the System ID as the Site ID, make sure you have some other system of identification to clearly distinguish each installation so that each receives the correct packet. (This is only an issue for the first synchronization. The Site ID will be transferred to the remote installation the first time you process a packet from the central location at that site. The System ID will be changed if necessary. So, after the first synchronization, the System ID and the Site ID for each remote site will match.)

Note: Once you have installed Data Synchronization Server on a remote site, you will no longer be able to edit the System ID in Preferences for that installation of TeleMagic. If you need to edit your System ID in an installation of TeleMagic being used as a Data Synchronization Server remote site, you must do so from the Site ID: field in the Remote Site Maintenance dialog box.

Opening Data Synchronization Server at the Remote Site

To Open Data Synchronization Server at the Remote Site:

1. From the TeleMagic Program Folder, double-click the Data Synchronization Server icon:

or From the taskbar, click **Start** and select **Run…** from the Start menu.

The Run dialog box will open.

2. In the Open: field, enter the path to the file DSREMOTE.EXE in the TeleMagic programs directory.

   Example: If the main TeleMagic directory is in the path F:\TM you would enter ***F:\TM\PROGRAMS\DSREMOTE.EXE***.

3. Click **OK**.

   A Data Synchronization Server logon dialog box will appear.

4. Enter your TeleMagic User ID and password and click **OK**.

   The TeleMagic Data Synchronization - Remote screen will open.

   If this remote site has never received a packet, the Site: will be Undefined and the ID: will display this installation of TeleMagic's System ID. If it has received a packet, Site: will display the site name and ID as established in Site Setup.

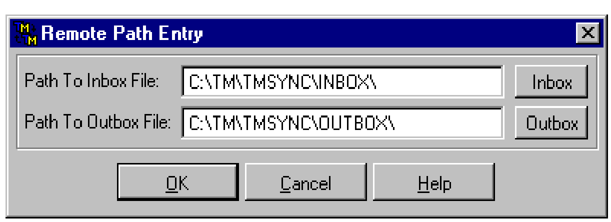
Establishing the Inbox and Outbox

Data Synchronization Server comes with default directories for use as an inbox and outbox. Packets containing changes made to the remote installation are created in the outbox. Packets containing changes that need to be synchronized into the remote installation are placed into the inbox. If you are using a communications program other than Data Synchronization Server's FTP transfer or TeleMagic Internet Mail to transfer packets, you may need to change the paths to the inbox and outbox to a location accessible by that communications program.

To Set File Paths at the Remote Installations:

1. From the Data Synchronization Remote **Setup** menu, select **File Paths**.

   The Remote Path Entry dialog box will open:



Sample Remote Path Entry Dialog Box

This dialog box will offer a default of the paths to the existing \INBOX and \OUTBOX directories off the \TMSYNC directory in the TeleMagic directory path.

2. If necessary, edit the path to your inbox and/or outbox.

or Use the **Inbox** and/or **Outbox** buttons to select the path(s) from a Windows Select Directory dialog box.

3. When satisfied with your selections, click **OK**.

   You will be returned to the TeleMagic Data Synchronization Remote screen.

4. Open Data Synchronization Server at each remote site and repeat steps 1 through 3, if necessary.

   Note: If you change the path to your inbox or outbox, give some consideration to where the previous paths are referenced. If you have already been synchronizing using the previous paths, make sure that the individual responsible for transferring the packets knows about the change. If you are using a script that references a batch file or program to transfer the packets, make sure you update the paths where appropriate. This is not necessary if you are using FTP or e-mail transfer.

Setting Time Zones

There is a Site Preference that instructs Data Synchronization Server to compare the date and time of an incoming edit to the last date and time the field was edited in the target installation and only accept the most recent change. If some of your sites are in different time zones, this will affect Data Synchronization Server's ability to determine when a change was made in relation to other sites. To accommodate this, Data Synchronization Server allows you to specify the time zone in which your sites are located, and whether your time zone recognizes daylight savings time. Data Synchronization Server also uses the time zone information when updating the Last Revision field with changes made during synchronization and when synchronizing the dates and times in LCL and RCL fields.

To Set the Time Zone:

1. From the Data Synchronization Remote **Setup** menu, select **Time Zone**.

   The Select Your Time Zone dialog box will open:

Select Your Time Zone Dialog Box

The time zone will default to Pacific Time.

2. Use the Remote Site Time Zone drop-down list to select the time zone in which the remote installation of TeleMagic will be located.
3. If the time zone selected in step 2 uses daylight savings time, mark the Use Daylight Savings Time? checkbox.
4. When satisfied with your selections, click **OK**.
5. Open Data Synchronization Server at each remote site and repeat steps 1 through 4, if necessary.

Basic Setup is Complete

You have finished basic setup and are now able to run a simple synchronization. Use the following checklist to verify that you have completed each step in the setup procedure.

Setup Check List

- ✍ Install Data Synchronization Server on your central installation.
- ✍ Open Data Synchronization Server. Select **Server Maintenance** from the **Maintenance** menu and set up your server. (Optional—a default server has been provided.)
- ✍ Select **Site Maintenance** from the **Setup** menu and add each of your remote sites.
- ✍ Select **User Maintenance** from the **Setup** menu and establish the users at each site.
- ✍ Select **Databases to Synchronize** from the **Setup** menu and select the databases you want to use in synchronization.
- ✍ Select **Database Preferences** from the **Setup** menu and select the preference settings for use with each database. (Optional—if you make no preference settings, all data will be synchronized except OLE fields and database structure.)
- ✍ Create unique settings for any sites that you do not want to read the global settings by selecting **Site Specific Setup…** from the **Setup** menu. This menu item will open two additional selections: **Databases to Synchronize** and **Database Preferences**. (Optional.)
- ✍ Install Data Synchronization Server on your remote installations.

✍ Open Data Synchronization Server on each remote installation in turn. Select **Time Zone** from the **Setup** menu to establish the time zone in which the site is located.

POWER FEATURES

What are "Power Features"?

Standard database synchronization does just that—it synchronizes the data stored in databases. This covers changes to your contact records and usually includes changes to your activity database.

The term "power features" describes the options that have been built into Data Synchronization Server that allow you to go above and beyond this standard. You will have already encountered some of these features when performing your basic setup, including the degree of control you have over how data gets synchronized (unlimited databases, field level filtration, unique settings for each site, etc.); the ability to actually synchronize database structure; and the ability to synchronize users. In addition to the power features already covered, there are several optional power features that further enhance your synchronization potential. These features are discussed in this chapter.

Options

Before accessing the advanced areas of Data Synchronization Server, it is a good idea to establish your Options. Options allow you to create defaults that can be used in other areas of Data Synchronization Server. As you work with the power features, you may encounter options for synchronizing file sets, scripts, user preferences, and security. The Options feature is used to establish what file sets, scripts, preferences, and security to use.

Security

Security allows you to select the default security and preferences that will be applied to all new users being added to a remote site of TeleMagic through Data Synchronization Server, as well as the default security group for use in initialization.

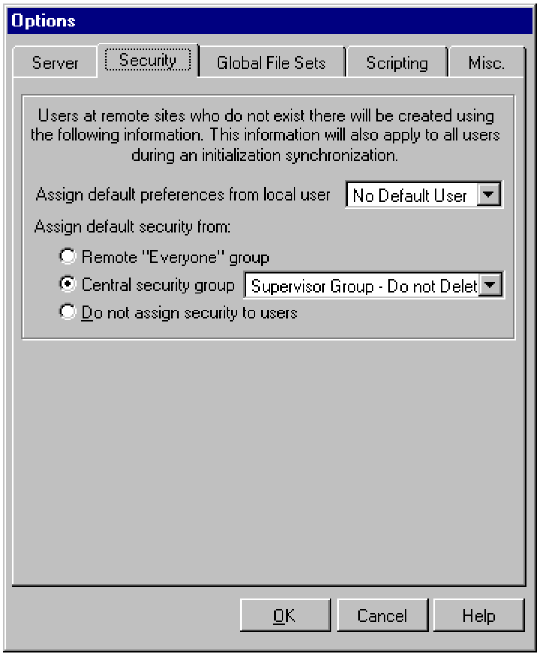
To Access Security:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The **Options** dialog box will open.

2. Click the **Security** tab.

   The **Security** page will open:



Sample Security page

User Preferences

User Preferences are the User Configuration Option settings created in TeleMagic. These settings are used to customize areas of the program for individual users. User Preferences apply to Data Synchronization Server during two procedures: when adding new users and during initialization.

Users are generally added in TeleMagic by copying an existing user. This copies that user's preferences, saving the necessity of having to manually enter every preference for the new user. (The new user can later personalize these settings if necessary.) Selecting a default set of user preferences in Data Synchronization Server's Global Options will perform a similar function. The Assign default preferences from local user drop-down list contains all users in the central installation. It allows you to select a user whose preferences will be copied for all new users being added to remote sites through synchronization. If you are performing an initialization, you have the option of copying this set of preferences to every existing user at the remote site.

To Select a Default User Preference Set:

1. From within TeleMagic, make sure that a user exists with the set of preferences you want to use.

   Hint: If such a user does not exist, you can create a Master Template User. This is done by creating a User ID and name that is not actually going to be used by a TeleMagic user, but will instead be used as a template, then assigning preferences to that template. For example, you may add a user with the ID DSU and the name Data Synchronization User; then log into TeleMagic as DSU and set the desired preferences for it.

2. Exit TeleMagic and open the Security page as detailed above.
3. From the Assign default preferences from local user drop-down list, select the user whose preferences you want to use.

Default Security

Data Synchronization Server allows you to keep control of your remote sites' security at the central installation. Security is used by Data Synchronization Server at two times: when adding new users and during initialization.

When new users are added to a remote site during synchronization, Data Synchronization Server needs to know what security to assign to them. While users could be added with no security and security assigned by the site's system administrator later, it will save time and effort to allow Data Synchronization Server to assign the users' security. The system administrator can edit this later, if necessary. This is accomplished by either selecting a security group from the central site as a default for use with all new users added through synchronization, or creating a group named Everyone at the remote site and selecting it as the default. (If a security group selected from the central site does not exist in the remote location, it will be added.) Additionally, during initialization you will have the option of assigning all existing users to this default security group. This will allow you control over users' access to TeleMagic at the remote site.

Note: Selecting a default security group does not automatically assign existing users at the remote sites to that group. The only way that the security of users already at the site will be affected by this setting is if you apply this security to existing users during initialization. Simply selecting a security group here will only affect any new users that Data Synchronization Server adds during synchronization.

To Select Default Security:

Note: Security groups must be created from within TeleMagic. You will have the option of selecting any group from the central installation for use with all sites, or using unique security for each site. If you are creating site specific security, you must create a security group at each site and name it Everyone. If you have not already created your security groups, do so before proceeding.

1. From the **Options** dialog box (accessed from the **Setup** menu), open the Security page.
2. In the Assign default security from: section, select a default security radio button using the following guidelines:
   - Select Remote “Everyone” group to use a security group named Everyone existing at the remote sites. (This group should be created at the remote sites in advance.) If selected, Data Synchronization Server will search for a security group at the remote site named Everyone and use it when assigning security.

     Note: If you perform an initialization that places all users at a remote site in the remote’s Everyone security group, you will receive a reminder to verify that the site has a group named Everyone. If an initialization packet that places users in the Everyone group is received at a site which does not have an Everyone group, the security changes will be ignored and users will retain their original security groups.
   - Select Central security group to use the security from a group existing in the central installation. When this radio button is selected, the drop-down list next to it will become active. Select the appropriate group from the list. (If this security group does not exist in the remote site, it will be added during synchronization.)
   - Select Do not assign security to users if you do not wish to have a default security group. If selected, users will be added without security and will have to be manually assigned to a security group at the remote sites.

     Note: You will not be able to perform an initialization that removes your security groups with this option selected. (If you did, it would remove the existing security groups and not replace them with a default, leaving remote users unable to access TeleMagic.)

Synchronizing Security

In Global Options, you are able to select a security group that will be synchronized to the remote sites. If any changes are made to this group at the server, it will be updated at the remotes. Users do not have to exit TeleMagic at the remote site when a packet containing changes to this security group is synchronized. If a user is in TeleMagic when his or her security changes, the change will be applied the next time he or she logs in.

Global File Sets

File sets allow you to define groups of files to transfer to the remote sites during synchronization. This can be used to send documents (or document templates), reports, spreadsheets, and any other type of file that needs to be received by the sites.

The **Global File Sets** option allows you to create the groups of files that should be transferred, specify exactly which file should go where, and specify what should occur if the selected file already exists at the remote site.

To Create File Sets:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

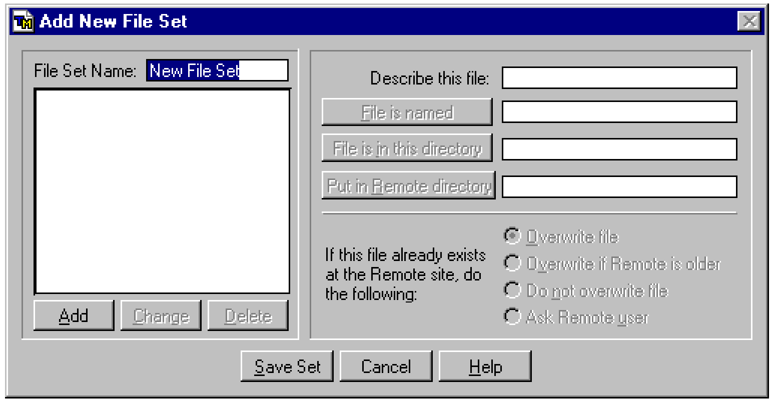
2. Click the **Global File Sets** tab.

   The Global File Sets page will open:

Global File Sets Page

3. Click **Add Set**.

   An Add New File Set dialog box will open:



Add New File Set Dialog Box

   The File Set Name: field will default to New File Set.

4. Enter a unique name in the File Set Name: field for this file set.

5. To add a file to this set, click **Add**.

   The right side of the screen will become active. The **Save Set** button will change to **Save File**.

6. In the Describe this file: field, enter a descriptive name for this file.

7. Enter the actual name of the file in the **File is named** field.

or Click the **File is named** button to bring up a Windows Open dialog box where you can select the file name.

   Hint: You can use wildcards to replace all or part of the file name.

   If you selected the file name from an Open dialog box, the directory will automatically be entered in the **File is in this directory** field. If you entered the file name manually, you must enter the path to the file.

8. Enter the path to the file in the **File is in this directory** field.

or Click the **File is in this directory** button to bring up a Windows Select Directory dialog box where you can select the path.

9. If you want to have this file placed into a specific directory in the remote installation, enter the path in the **Put in Remote directory** field. If you leave this field blank, the file will be placed in the remote installation's common directory. (The common directory is the main TeleMagic directory, \TM\COMMON by default.)

or Click **Put in Remote directory** to open a Windows Select Directory dialog box with a list of all drives and directories in the central installation. If your directory structure in the remote installation is the same or similar to the directory structure of the central, you can select the target path from the Select Directory dialog box. Edit the path as necessary.

Note: If the specified directory does not exist at the remote site, Data Synchronization Server will create it.

10. Use the radio buttons to specify what occurs if the file exists at the remote site:
    - Selecting Overwrite file will cause the file in the remote site to be replaced with the file from the central installation.
    - Selecting Overwrite if Remote is older will cause the file in the remote site to be replaced only if the file from the central installation is more recent.
    - Selecting Do not overwrite file will cause this file to only be copied to the remote site if it does not already exist.
    - Selecting Ask Remote user will cause a pop-up to appear during synchronization allowing the user processing at the remote site to decide if the file should be overwritten or not. (It is recommended that you alert the users at the remote sites if you will be selecting this option.)
11. Click **Save File**.

    The file description will appear in the list below the file set name.
12. Repeat steps 5 through 11 for each file you want to include in this set.
13. If you want to edit any of the file selections, highlight it in the list and click **Change**.

    The **Save Set** button will toggle to a **Save File** button.
14. Make any necessary changes on the right side of the dialog box and click **Save File**.
15. If you want to remove a file from this set, highlight it in the list and click **Delete**.

    You will be asked to confirm your decision to delete.
16. Click **Yes** to delete the file from the set.
17. When satisfied with the set, click **Save Set**.

    You will be returned to the Options dialog box.
18. Repeat steps 3 through 17 to add another set.

Note: You can attach the file set now. Select the file set from the Attach Global File Set drop-down list.

19. Click **OK** to exit the Options dialog box.

Attach Global File Set

At any given time, you can transfer two file sets to a site during synchronization: one global set, and one site specific set. Selecting a global file set is done at the Options dialog box.

Note: Selecting site specific file sets is controlled in Site Preferences.

To Select a Global File Set:

Note: To perform this procedure you must have already created the file set.

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

2. Click the **Global File Sets** tab.

   The Global File Sets page will open.

3. Click the Attach Global File Set: list arrow to open a drop-down list of file sets.
4. Highlight the file set that you want to use.
5. When satisfied with your selection, click **OK**.

   The selected file set will be transferred to all sites with the next synchronization.

   Note: This file set will continue to be transferred upon synchronization until you edit this selection. If you do not wish to send a file set, select the No Files option from this list.

Scripting

Scripts are used at the remote sites to automate processing. Most of the time synchronization at the remote sites will follow a consistent set of steps, such as 1) retrieve the inbox packet via FTP; 2) process the inbox; 3) process the outbox; 4) transfer the outbox packet via FTP. A script is composed of a set of such steps that can be executed automatically, one after the other, by simply launching the script. Although scripts can be set up at the remote sites, if most or all of your sites will be using the same script, you can avoid duplicate work by creating a global script at your central site and transferring it to the remote sites during initialization.

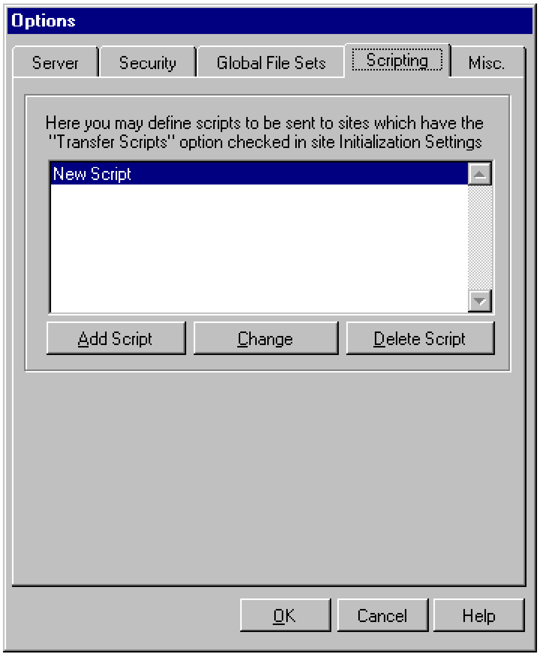
To Create Scripts:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

2. Click the **Scripting** tab.

   The Scripting page will open:

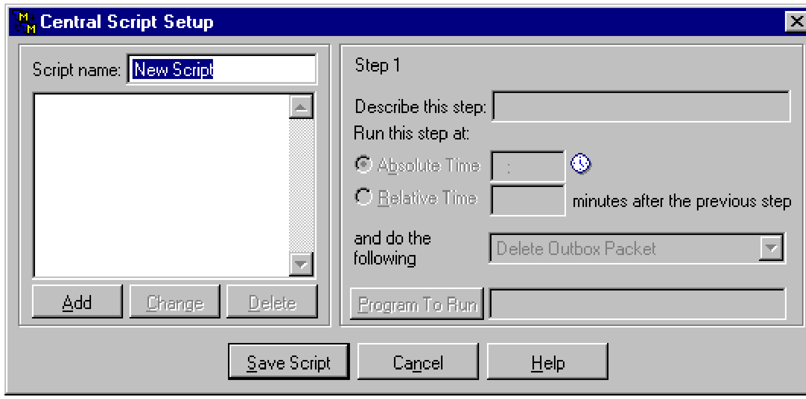


Scripting Page

Note: A default script has been provided that will process the inbox and the outbox.

3. Click **Add Script**.

The Central Script Setup dialog box will open:



Central Script Setup Dialog Box

The Script name: field will default to New Script.

4. Click in the Script name: field and enter a unique name for this script.

5. Click **Add** to add the first step in this script.

   The right side of the screen will become active and the **Save Script** button will toggle to a **Save** button. (**Save** will only save the step, not the entire script.)

6. In the Describe this step: field, enter a description of the step.

   Example: Process Inbox

7. Under Run this step at, choose one of the following options:

   - Absolute Time allows you to set a time for the step to begin in 12-hour format, followed by an ***a*** for a.m. or a ***p*** for p.m. (If you enter a time in 24-hour format, it will be translated into 12-hour format.)

   - Relative Time allows you to set the time in minutes for this step to begin, relative to the time established for the previous step (or to launching the script if this is the first step).

     Note: If you are processing the inbox or outbox in the previous step in the script (as defined in instruction step 8, below), the time will be relative to when processing is completed. If you are running a program (see step 8, below), it will be relative to when the program is first launched. For example, if you are running a program in the previous step and set it to begin at 9:00 and set a relative time of 45 minutes, the step will begin at 9:45.

     Hint: If you set a relative time of zero for the first step, the step will be executed immediately when the script is launched.

8. Select one of the and do the following options from the drop-down list to define what should occur in this step:

   - Process Inbox will process any packet from the central or satellite installation currently in the site's inbox.

   - Process Outbox will process existing transaction records into an outgoing packet and place it in the site's outbox.

   - Delete Outbox Packet will delete any packet currently existing in the site's outbox. This can be used to clear the outbox of old packets before processing. Alternatively, if a program is run that copies a packet to another location and leaves the original packet in the outbox, this option can be used to remove the original packet. Care should be exercised not to delete a packet that has not been received by the server.

   - Send Packet via Transport will send the packet according to the selections you have made under Transport Options—i.e., via FTP or e-mail transfer. (Consider using this step after the outbox has been processed.)

   - Retrieve Packet via Transport will retrieve the packet according to the selections you have made under Transport Options.

   - Send/Retrieve Packet via Transport will retrieve any incoming packet for the site then post any existing outbox packet according to the selections you have made under Transport Options.

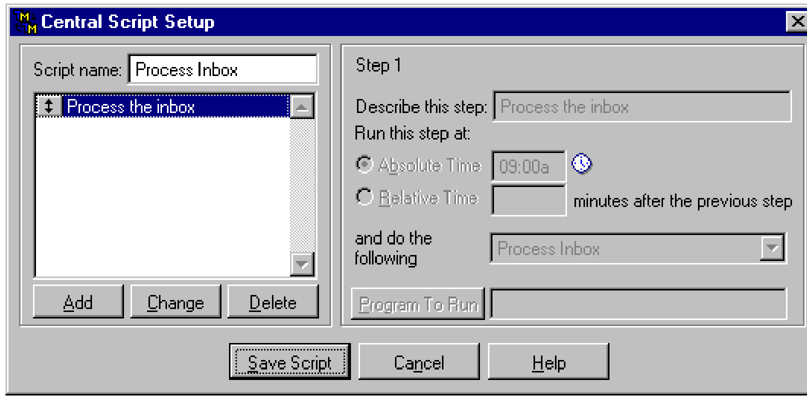
   - Run a program allows you to run another program or batch file to perform such functions as virus scanning or file copying.

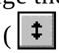
     Note: Make sure the specified program exists at the remote sites when selecting this option. If it does not, you can use the file sets feature to transfer the program from the central installation to your sites.

9. If you chose Run a program in step 8, enter the path and executable name for the program at the remote sites. Or, if your directory structures at the remote sites are the same or similar to the central installation, click the **Program To Run** button to locate the file using a Windows Open dialog box. Edit the path as necessary. (If the file is not in the same path at all sites, the script will have to be edited at each site.)

10. When satisfied with this step, click **Save**.

The step name will appear beneath the script name:



11. Repeat steps 5 through 10 for each step you want to add to the script.
12. If you want to change the order in which any step in the script is executed, click and hold the mover box () next to the step description while dragging the step to the appropriate position. Repeat this until all steps are in the desired order.
13. If you want to change the details of any step, highlight it on the list and click **Change**.

    The step details will become available and the **Save Script** button will toggle to a **Save** button.
14. Make any necessary changes to the step and click **Save**.
15. If you want to remove any step from the script, highlight it and click **Delete**.

    A message will appear asking you to confirm your decision to delete.
16. Click **Yes** and the step will be deleted.

or Click **No** to retain the step.

17. When you are satisfied with your script, click **Save Script**.

    You will return to the Options dialog box, Scripting page.

    Your new script will appear on the Scripting page.
18. If you want to create another script, repeat steps 3 through 17.

or Click **Close**.

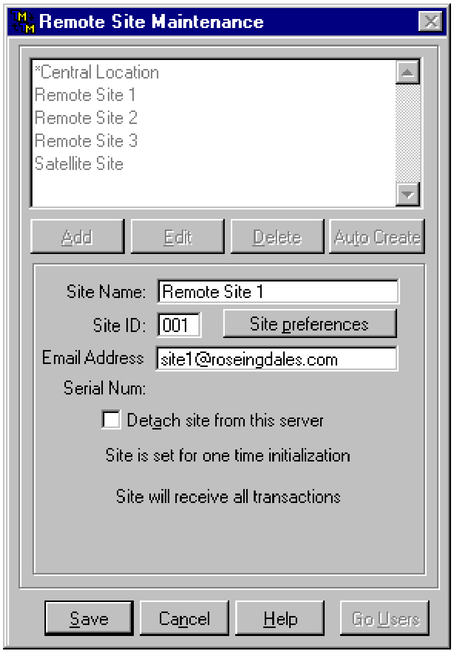
Site Preferences

Site Preferences allow you to create site specific settings to control the synchronization of such things as activities and e-mail, as well as allowing you to further configure the site for synchronization, if desired.

To Open Site Preferences:

1. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open:



Sample Remote Site Maintenance Dialog Box

   The Remote Site Maintenance dialog box will contain a list of all your sites.

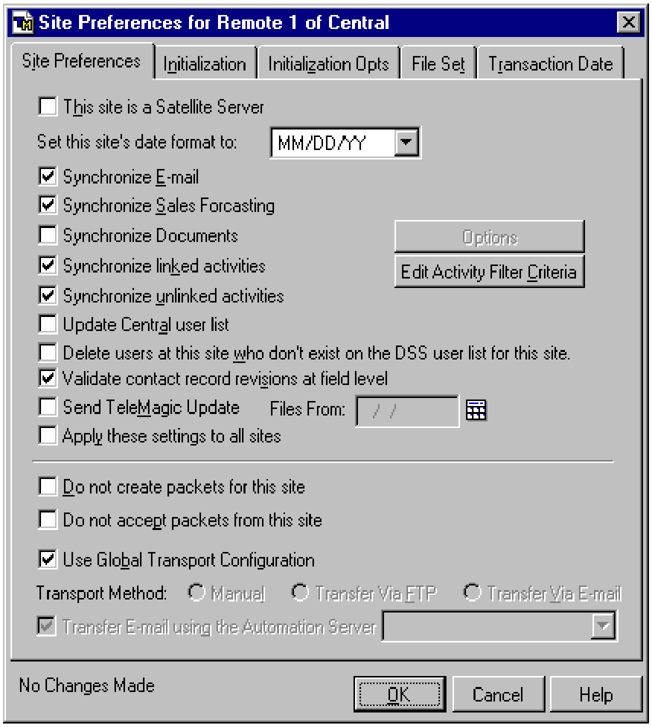
2. Highlight the site you want to set preferences for and click **Edit**.

   Note: If an initialization has been performed for this site and the site has not yet sent a return packet, you will receive a message saying that you cannot edit the site at the current time. The **Site preferences** button will toggle to **Resend packet** when you click **Edit**. You must process the initialization packet at the remote site and send a response packet back to the server before you can alter your site settings. If, for any reason, you are unable to use the initialization packet, you can create a new one with the same settings using the **Resend packet** button.

   The **Site preferences** button will become available.

3. Click **Site preferences**.

   The Site Preferences dialog box will open:



Site Preferences Page

4. Use the guidelines in the following sections when selecting your Site Preference settings.
5. Click **OK** when you are satisfied with your selections, or continue with the *Initialization* section.

Satellite Server

Satellite servers provide you with a high degree of flexibility in how your sites are related to one another. To designate a site as a satellite server, mark This site is a satellite server. For more information on satellite sites, see the *What are Satellite Sites?* section of the *Different Types of Sites* chapter, earlier in this guide.

WARNING! You can convert a remote site to a satellite server, but you cannot convert a satellite server to a remote site. Only mark this checkbox if the site has been installed as a satellite.

Date Format

The Set this site's date format to setting in Site Preferences allows you to set the date format that will be used by the remote site.

Note: Checking Century On at the server will force Century On at the remote sites.

When outbox packets are created, Data Synchronization Server condenses the data so the packet will be the smallest possible size. As part of this, it takes the date separator characters (e.g., the dash "-" and slash "/" characters) out of the dates in memo fields. When synchronizing those dates into the memo fields at the target site, Data Synchronization Server needs to know what date separator character to put back in. You can control what separator character is used (defaulting to the slash "/" character). The date separator character is determined by the selection made in the Set this site's date format to: drop-down list. When synchronization is performed, Data Synchronization Server will place the note in the proper place in the notepad and use the specified character in the date stamp.

Once Data Synchronization Server is installed, users will no longer be able to access the Date Format preferences on the System Preferences screen in TeleMagic. If you want to change the date format in use at the site, select the date format you want to use from the Set this site's date format to: drop-down list. The Date Format option will not be available at satellite offices. The date format for satellites is set at the central site.

E-Mail

You have the option of including e-mail in your synchronization packet. If a user exists at multiple sites, that user's e-mail messages can be sent to every site at which he or she may possibly need to access e-mail. You will also be able to access all users' names when writing e-mail messages at any site, regardless of whether those users actually exist in the current installation of TeleMagic. Mark the Synchronize E-mail checkbox if users work at multiple sites and need to be able to access their e-mail regardless of where they are, or need to communicate with users at other sites using e-mail. (Data Synchronization Server will use the user list you have established at each site when determining where to send the e-mail.) If users are only set up at a single site and do not use e-mail to communicate with users at other sites, e-mail may not need to be sent to multiple sites. If you unmark this checkbox, e-mail messages will not be synchronized to or from this site.

Note: All users from each of your sites will appear on the TeleMagic users list in the Select Recipients dialog box in TeleMagic Internet E-mail (the list used to select to whom the e-mail message should be sent) for all sites, regardless of whether or not you have Synchronize E-mail selected for any site. It is therefore possible to create an e-mail for a user who exists at another site that is not set to receive e-mail through synchronization; in this instance that user would not receive the message. For this reason, if users will be writing e-mail to users at other sites, it is recommended that you mark this checkbox for all sites.

Note: Synchronize E-mail does not apply if you are sending e-mail via the Internet, since the e-mail will reach the recipient regardless of this setting.

Synchronize Sales Forecasting

You may include sales forecasts in your synchronization packets. Synchronization of sales forecasts follows the same rules as activities. There is an option on initialization to include linked sales forecasts and to transfer sales forecasting records. Routine synchronization of sales forecasts is set in Database Preferences in Enterprise.

Synchronize Documents

There is an option to synchronize documents (which is different from synchronizing Database Documents, an option in Database Files to Transfer). When you mark this checkbox, an Options button becomes available. Clicking this will open the Document Synchronization Options dialog box. You may then decide if you wish to synchronize user documents, global documents, or both. You may also decide if you want remote sites to be able to send documents to be synchronized.

Activities

If users exist at multiple locations, you can synchronize their calendars to all of those locations. In this way, users can be assured of receiving all of their scheduled activities and To-Dos, no matter where they happen to be.

All users from all sites will be available when assigning activities and activity permissions. Depending on your Activity Filter Criteria (discussed later in this section), users may be able to receive activities from users to whom they have granted activity permissions who do not actually exist in the current installation. They can also assign activities to users who have granted them activity permissions who do not exist in the current installation. In this way, users at different sites can share activities. Activity permissions can also be assigned across sites using Data Synchronization Server. Users will be able to grant activity permissions, regardless of whether or not the other user actually exists in the current installation.

Note: Only activities stored in the TeleMagic \COMMON directory will be included in synchronization. (Storing activities outside of the global TeleMagic directory is controlled in Activity Preferences.)

When a change is made to a user's activity permissions (the settings that control who may and may not view and change a user's calendar of activities), the date and time of that change is logged. If that same user makes a conflicting change to his or her permissions at another site, Data Synchronization Server will retain the change that was made the most recently, regardless of the order in which the changes are synchronized. For example, if you grant a user permission to view your calendar while at one site, then remove it while at another site, Data Synchronization Server will retain the change that was made last, not necessarily the change that was synchronized last.

Linked Activities

Mark the Synchronize linked activities checkbox if you want to synchronize activities for this site that are linked to a contact. Unmark it if you do not want to synchronize activities for this site, or only want to include users' personal activities (those not related to a record in the contact database).

Note: Linked activities will only be synchronized if the contact to which they are linked exists in the target database.

Note: There is also a Data Synchronization Server Database Preference to include linked activities. Data Synchronization Server will first check this Site Preference to determine if the site should receive linked activities. If this is not marked, no linked activities will be synchronized. If it is marked, Data Synchronization Server will then check the setting in Database Preferences for each database synchronized for this site.

Unlinked Activities

Select Synchronize unlinked activities if you want users' personal activities (those not related to a contact) synchronized. Unmark it if you do not want these activities synchronized.

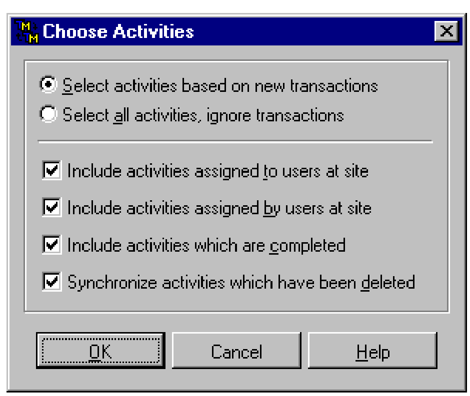
Edit Activity Filter Criteria

If you have selected Synchronize unlinked activities and/or Synchronize linked activities, you can further filter what activities should be included by selecting activity filters.

To Set Activity Filter Criteria:

1. At the Site Preferences page, click **Edit Activity Filter Criteria**.

   The Choose Activities dialog box will open:



Choose Activities Dialog Box

2. Choose Select activities based on new transactions if you want to only include activities that have been changed since the last synchronization of the outgoing packet.

or Choose Select all activities, ignore transactions if you want to include all activities in the outgoing packet. (This option will only be applied when synchronizing from the server to a satellite or remote. Synchronization from the remote to central always respects transactions.)

3. Mark the Include activities assigned to users at site checkbox to include all activities normally appearing on the calendars of users at the remote sites.

4. Mark Include activities assigned by users at site to synchronize activities created by users at the current site that have been assigned to users at other locations.

   If you have marked either Include activities assigned to users at site or Include activities assigned by users at site, the Include activities which are completed and Synchronize activities which have been deleted checkboxes will become available.

5. Mark Include activities which are completed if you want completed activities assigned to and/or by users synchronized. Unmark it if you would only like pending activities included.

6. Mark Synchronize activities which have been deleted if you want to synchronize the deletion of activities assigned to and/or by users. When marked, if an activity has been deleted from any other site that has this checkbox marked, it will also be deleted at this site. At the same time, a transaction for activities that have been deleted at this site will be included in the outgoing packet and synchronized to any other sites that also have this checkbox marked.

Update the Central User List

When setting up your site, you created a central user list for the site containing every user who is supposed to be at the site. When Data Synchronization Server performs a synchronization from the central installation, it will reference this site's central user list and make sure that the list of users actually existing at the remote site matches. If you have added a user to the site's user list in Data Synchronization Server, that user will be added in TeleMagic at the site. You also have the option of deleting any users at the site who are not on the site's user list. This allows you to maintain TeleMagic with all changes to personnel from a central location. (Deleting users is based on your Delete users at this site who don't exist on Data Synchronization's user list for this site selection.)

You can opt to have this synchronization of user lists performed both ways. If you want to enable supervisors at the remote site to perform maintenance on the users directly at the remote installation without their changes being overwritten during synchronization, mark the Update central user list checkbox. If marked, when synchronization is performed from the remote to the central, Data Synchronization Server will make sure the remote site's central user list matches the list of users at the remote site, adding and deleting users from the list as necessary.

Note: This requires that the information from the remote site be synchronized to the central installation *before* the central installation next updates the remote site. If synchronization from the central installation to the remote site is performed before the synchronization from the remote site to the central installation, changes to the users at the remote site may be lost.

Note: The results of this setting will vary depending on whether you have also selected to delete users at the site through synchronization.

Delete users at this site who don't exist on the DSS user list for this site

This option allows you to control whether users are deleted automatically through synchronization. When marked, users existing at the remote installation of TeleMagic who are not on the site's user list will be deleted on synchronization.

You can use this checkbox in conjunction with the Update central user list checkbox to control the users who exist both at the site and on the site's user list. These checkboxes work together using the following guidelines:

? If both checkboxes are marked, users at a remote site who have been deleted from the central user list will be deleted at the site *unless* the site performs synchronization to the central installation *before* it receives the packet deleting the user. In this case, the user will be added back to the central user list. If a user is deleted at the site, that user will also be deleted from the site's user list.

? If neither checkbox is marked, users added to the central user list will be added to the site. If a user is deleted from the central user list, the user will remain at the site, but will not be included in synchronization. (That user will not receive activities or e-mail created at other sites.) If a user is deleted at the remote site, that user will be re-added on the next synchronization.

? If the Delete users at this site who don't exist on Data Synchronization's user list for this site checkbox is not marked and Update central user list is marked, any users who have been removed from the site's central user list will be re-added the next time an incoming packet is received from the site.

? If the Delete users at this site who don't exist on Data Synchronization's user list for this site checkbox is marked and Update central user list is not marked, the central installation will retain total control over the remote installation. On each synchronization to the remote site, Data Synchronization Server will make sure that the list of users existing at the site exactly matches the central user list, adding users who do not exist and deleting users who have been added to the site who are not valid for the site.

Validate Contact Record Revisions

Generally, if multiple changes have been made to the same field, you will want the most recent change retained. Mark the Validate contact record revisions at field level checkbox if you want Data Synchronization Server to compare the transaction date and time of an incoming change to the last date and time a transaction was created for the target field and retain the most recent edit. (This is not applicable with memo fields.) Unmark it if you do not want this to be a criterion when determining replacement precedence.

Note: Data Synchronization Server allows you to set up field rules to determine exactly when a field should and should not be replaced in the central location. When synchronizing to the central location from the remote site, if you have Validate contact record revisions at field level selected as a site preference, Data Synchronization Server will first compare the transaction dates of both fields. If the incoming change is more recent, it will then apply the field rule.

Send TeleMagic Update

This option allows you to quickly update synchronized installations with new TeleMagic files. Having this checkbox marked will cause Data Synchronization Server to search for new TeleMagic files in your central installation each time you synchronize the site. Any new files that are located will be included in the outbox packet and copied to your remote installation.

Hint: Do not confuse an update with an upgrade. Updates are program files provided by TeleMagic at no charge to enhance your installation of TeleMagic. Upgrades provide a complete version change and require running a setup program, or the rebuild program with the /UPGRADE parameter. If you have upgraded, use the Send TeleMagic Upgrade initialization setting, found on the **Initialization Opts** page of the Site Preferences dialog box.

Note: If you are synchronizing to an evaluation copy of TeleMagic, updates will not be included. The site must be registered to perform automatic updates.

Files From

When an update file is synchronized, Data Synchronization Server notes the date on which it was sent. With each subsequent synchronization, it compares the date of the TeleMagic files at the central installation to that date. If any are dated later than the date recorded the last time an update was sent, those files will be included in the outbox packet. If you have files that are dated earlier than the date the last update was sent, or if for any reason the site did not receive an update, you can specify a date in the Files From field. If there is an entry in this field, Data Synchronization Server will take all files from that date forward.

Do not Transport packets to this site

If your Transport Options are set to Transfer via FTP or Transfer via E-mail, outbox packets will be sent via FTP or TeleMagic Internet Mail. If you have a site which cannot access the Internet, mark this checkbox and the packet will be sent to the outbox, from which it can be transferred to the site by whatever means are required.

Apply Settings to All Sites

This option allows you to quickly transfer settings to other sites. If you will be using the same settings for most or all of your remote sites, you can save duplicate setup by marking the Apply these settings to all sites checkbox. (This checkbox pertains only to the settings preceding it.) When marked, these settings will overwrite any settings for these options at your other sites.

Hint: If you will be using the same settings for all but a few of your sites, create these settings first, apply them to all sites, then access the Site Preferences for each of the sites requiring exceptions and set them up separately.

Do Not Create/Accept Packets

You may want to temporarily take a site out of the synchronization process. If so, you can use the Do not create packets for this site and the Do not accept packets from this site options to place the site on hold. If Do not create packets for this site is selected, the server will not create an outbox packet for the site. If a packet is received from the site with Do not accept packets from this site selected, the packet will not be processed. (The rejected packet will be placed in a \BACKUP sub-directory of the \TMSYNC directory in the TeleMagic directory path.)

Hint: If you do not want to place a site completely on hold, you can select only one option. For example, if you select Do not accept packets from this site only, the site status will indicate that the site is on hold, but you will still be able to create outgoing packets for the site at the central location and synchronize them into the remote site. This is useful if you want a site to receive changes from the central installation, but do not want to input any changes from the site into the central installation. (Conversely, if you want the central installation to receive changes from the site, but do not wish the site to be updated with changes from the central installation, you can mark Do not create packets for this site only.)

Use Global Transport Configuration

Leave this checkbox marked to transport packets to this site using the method established in Transport Options. When you unmark this checkbox, the following options will become available:

- Manual. Select this option if you are using some method of transfer other than e-mail or FTP transfer. For example, if you transfer your packets by copying them to diskette and mailing them to the site, use this option. You would also use this option if your remote sites are notebook computers which can be connected to your network when the user visits your central site.
- Transfer via FTP. Select this option if you will be using your FTP site to transfer packets.
- Transfer via E-mail. Select this option if you will be sending your packets via e-mail directly between sites.
- Transfer E-mail using the Automation Server. Select this option if you will be transferring packets via e-mail and you will be using the Automation Server to perform the actual transfer. If you select this option, you will need to select the Automation Server queue that will be used for the transfer from the drop-down list.

Initialization

Site initialization allows you to use synchronization to prepare the databases and certain areas of security in your remote installation for synchronization. Initialization also allows you to transfer data to your remote sites that would not ordinarily be a part of synchronization, such as scripts and file sets. Initialization can be performed as often as you desire, and you can control exactly what is included each time.

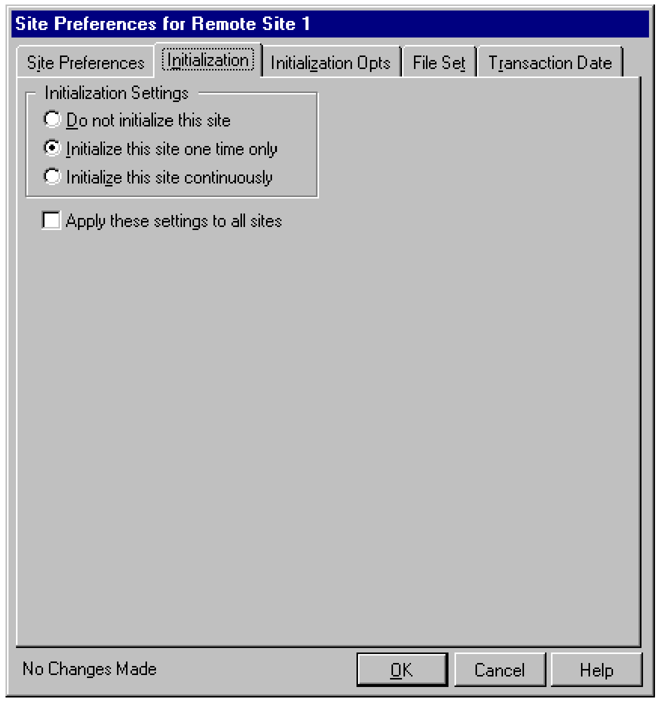
When you first add a site, Data Synchronization Server will select default initialization settings that will copy the database structure and contact records from the central installation to the remote site, ensuring that they match. After this first initialization, the site will automatically be set to not initialize, unless you specify otherwise. It is possible to edit these settings for first time synchronization, or to elect to perform initialization at other times.

Initialization Settings

To Access a Site's Initialization Settings:

1. Click the **Initialization** tab.

   The Initialization page will open:



Initialization Page

2. Choose from the following Initialization Settings to specify when to perform an initialization when synchronizing:

   - Select Do not initialize this site if you do not want to perform initialization.
   - Initialize this site one time only will perform the initialization the next time you synchronize, and a standard synchronization each time thereafter. (This setting is the default for all new sites.)

     Hint: If you choose this option and find you need to perform initialization again, you can access this screen and choose this option again. All of your other selections in this dialog box will be offered as defaults.
   - Initialize this site continuously will perform initialization each time you synchronize.

3. Mark the Apply these settings to all sites checkbox if you want the initialization performed for all sites following the above selected criterion.

   Hint: You can change this setting for individual sites if necessary by accessing the sites' Initialization Settings dialog boxes.

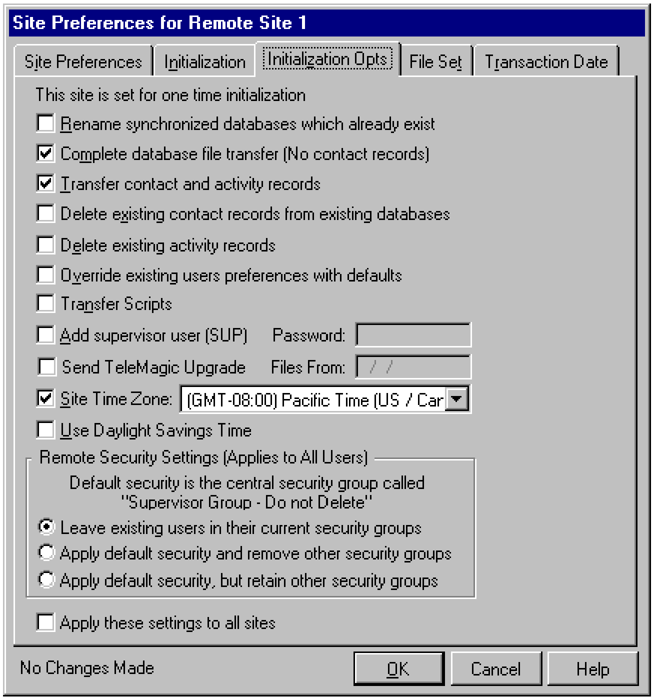
4. Click **OK** when you are satisfied with your selections, or continue with the *Initialization Opts* section.

Initialization Options

To Access a Site's Initialization Options:

1. Click the **Initialization Opts** tab.

   The Initialization Opts page will open:



Initialization Opts Page

Note: None of the options on this page will be available if you have selected **Do Not Initialize This Site** on the Initialization page. If all of the options on this page are dimmed, open the Initialization page and select some other option before proceeding.

2. Choose from the available options using the following sections as a guide.
3. Click **OK** when you are satisfied with your selections, or continue with the *File Set* section.

Rename Synchronized Databases

When synchronization is performed, Data Synchronization Server recognizes the databases by their names; if a database has been selected for synchronization in the central installation and a database of the same name exists in the remote installation, those two databases will be synchronized. If no matching database name is found in the remote installation, you have the option of adding the database from the central installation.

If you want to synchronize databases from the central location, but want them synchronized to new databases (created by Data Synchronization Server at the remote site), not to the databases of the same names in the remote installation, mark Rename synchronized databases which already exist. When marked, Data Synchronization Server will look for matching databases, but instead of synchronizing them, it will rename the databases in the remote installation. When the databases have been renamed, you can select to have Data Synchronization Server add new databases based on the copies existing in the central installation.

Note: You must have either Complete database file transfer (No contact records) marked on this screen or Create database if not found marked in the Database Files to Transfer dialog box off the Global Preferences dialog box for the databases to be added. The Global Preferences dialog box is accessed from the **Setup** menu by selecting the **Database Preferences** menu item. If the latter option is chosen, this option will be applied at all sites.

Example: You have a satellite office that has been using the Company/Contact database to contain sales leads. You have changed the field structure and added list boxes, indexes, and filters. You use the Company/Contact database in the central location to contain existing customers. Again, you have customized this database to fit your purposes. You need to synchronize the Company/Contact database existing in the central location to the remote installation, but you do not want to overwrite the information that is already there. By renaming Company/Contact in the remote installation, you can keep the database that is already there, and transfer a new copy of the database as it is used in the central installation.

Note: Selecting this option will affect *all* matched databases at this site that have been included in the synchronization. If you have databases you do not want renamed, do not use this setting. Instead, you must go into the remote installation and manually rename the ones you want affected *before* you synchronize for the first time. (Once a site is initialized, you will no longer be able to rename synchronized databases.)

Complete Database File Transfer

When creating your Data Synchronization Server Database Preferences, you had the option of including a selection of basic database structure options. When these options are selected, Data Synchronization Server will overwrite the existing structure in the remote site and replace it with the structure from the central location. When performing standard synchronization you can pick and choose which structural changes you want to make. You can use the Complete database file transfer (No contact records) initialization setting to override any individual settings you may use and perform a transfer of the entire structure, creating the database if it does not already exist. This option is a default for first time synchronization.

Note: Selecting this option does not mean that contact records will not be sent. Contact records are transferred according to other settings.

Example: Your central location and your remote site both contain a copy of a database called Customers. Users at the remote site have made changes to the database, deleting fields they did not really use, and adding others. They have also created indexes and list boxes. You are going to begin synchronizing these databases, and for consistency, would like all users working with the same database structure. Using this option, you can easily change the remote site to exactly match the central installation. (Users can make individual changes at the remote site after initialization has been performed, if necessary.)

Hint: If you select this option during initialization, this will be performed on all databases being synchronized to this site. If you would only like this applied to a specific database, do not mark this option and instead select all of the options in the Database Files To Transfer dialog box in Database Preferences for that database.

Transfer Contact and Activity Records

Selecting Transfer contact and activity records will cause all contact and activity records to be included in the outgoing packet, whether there are transactions for them or not. This is useful when preparing a database for the first synchronization as it allows you to synchronize differences in fields for which there are no transaction records. This option is a default for first time synchronization.

Note: This option will respect any contact and activity filters you have set.

Hint: Use this option with the Delete existing contact records from existing databases and Delete existing activity records options (detailed below) to ensure that your contact and activity databases in the remote site exactly match those in the central installation.

Delete Contact Records

Mark Delete existing contact records from existing databases if you want to empty the existing database in preparation for importing records from the central installation on synchronization.

Delete Activity Records

Mark Delete existing activity records if you want to empty the activity database (the database that stores the activities and To-Dos that appear on your schedule) in preparation for importing activities and To-Dos from the central installation on synchronization.

User Preferences

If you have selected a default set of user preferences you have the option of assigning these preferences to all existing users at the remote site. Mark Override existing users preferences with defaults to force all existing users to the preference settings of the user selected in Options. (These preferences can be later edited by users at the remote site if necessary.) Leave this unmarked if you want existing users to retain their current preferences.

Transfer Scripts

If you create scripts in the central installation for use at the remote site you have the option of sending these scripts to the remote site. Mark Transfer Scripts to send a copy of all of the scripts created in Options to the remote site.

Note: A default script has been included at the central site that can be transferred to your remote sites. If your sites will be using this default script, select the Transfer Scripts option to send the script to the sites.

Add Supervisor

You can create a new supervisor user at the remote site by marking Add supervisor user (SUP). When selected, a new supervisor user will be added with the User ID SUP and a default password SUPERVISOR. (If you want to change this password, enter a new one in the Password: field.) Selecting this option will cause this user to be added to the remote site's central user list and the user will be added at the site with the next synchronization. Be aware that if you have previously removed your Supervisor security group by selecting Remove existing security groups during initialization (or are currently removing this group), selecting this option will put the Supervisor security group back in.

WARNING! Be aware when using this option that if you already have a user existing at the remote site with the User ID SUP, that user will be granted supervisor access to TeleMagic.

Note: If this option is marked, the SUP user will be added to your site's user list in Data Synchronization Server. The user will be added to the remote site when a packet is processed *whether or not you perform initialization*. If you do not perform initialization, the user will not necessarily be added with supervisor security; it will be assigned the default security established in the Global Options dialog box.

Send TeleMagic Upgrade

Upgrades to TeleMagic can be performed at each site by running the upgrade setup program on the installation of TeleMagic at the site. If you have a large number of remote sites, however, this may not be practical. The Send TeleMagic Upgrade option allows you to automatically upgrade your remote sites through synchronization rather than upgrading each site manually. If you have upgraded your central installation of TeleMagic to V3.1 or later, you can have that upgrade performed automatically on synchronized sites through initialization.

Note: There are rare occasions when the volume of changes between versions is such that it becomes necessary to run the upgrade at the site. If this is the case, the Send TeleMagic Upgrade option will not be available.

WARNING! You should have purchased a version upgrade from TeleMagic for each site before performing an initialization that will upgrade the installation. Once a site is upgraded (whether through initialization or by running the upgrade setup program at the site), the installation of TeleMagic will revert to an evaluation copy until the site is registered. When a user first launches TeleMagic after upgrading, he or she will be prompted to perform registration. Make sure you have provided the user with the upgrade serial number. (The serial number must be unique for each site. Any installation of TeleMagic that has a serial number that is already in use at another site will not be synchronized.)

Files From

If you have selected to include a TeleMagic upgrade, by default Data Synchronization Server will only include files that are dated later than the last upgrade files that were synchronized. If, for any reason, the site did not receive an upgrade, you can specify a date in the Files From field. If there is an entry in this field, Data Synchronization Server will take all files from that date forward.

Site Time Zone

You have the option of setting the time zone for your sites on the installation containing the site. It is also possible to set this time zone during initialization and have it transferred to the site during synchronization. Use the Site Time Zone: drop-down list to select the appropriate time zone. This option will default to Pacific Time.

Note: Any edits made to the time zone at the site will be synchronized back to the central installation and reflected in this field. If users have previously established a time zone at the site and performed a synchronization to the central installation, the selected time zone will be displayed here.

Daylight Savings Time

If the time zone selected above observes daylight savings time, mark the Use Daylight Savings Time checkbox. Data Synchronization Server will automatically adjust the time when appropriate.

Remote Security Settings

You have the option of selecting a default security for use when adding new users through synchronization and with initialization. Remote Security Settings allow you to use these defaults to control the security available to your remote users. You can leave security unchanged, remove all but the default security group, or assign all users to the default group while retaining existing security groups.

The currently selected default security will be indicated. If this is not the security you want to use, you can change the default in Global Options. Changing the default security will affect all sites.

WARNING! If you have the Remote "Everyone" Group selected as your default security group, make sure that there is a group named Everyone at the remote site before selecting any of the options from this dialog box. If there is not, the security changes will not be applied at the remote site.

Leave existing users in their current security groups

Select this option to make no changes in security through synchronization.

Remove Security Groups

If you are using a default security group you have the option of overwriting the security groups existing at the remote site with this group. (This is useful if you want to control access to TeleMagic at the remote site. It is also the only way to remove the Supervisor security group from TeleMagic.) Mark Apply default security and remove existing security groups to delete all existing security groups from your remote site and replace them with the group selected in Global Options.

Note: If you have selected a security group from the central installation that does not currently exist in the remote site, it will be created. If you have selected the Remote "Everyone" Group option in Global Options, the Everyone security group at the remote site will be retained and all users at the site will be assigned to it.

Apply Default Security Group to All Users at Site

If you are using a default security group you have the option of assigning all users existing at the remote site to this security group. Mark Apply default security, but retain existing security groups to transfer all existing users to the group selected in Global Options. All of your current security groups will be retained with no users in them.

Hint: You can create a SUP user through initialization who will be assigned to the Supervisor security group. This user can then transfer any users to the existing groups if necessary.

Apply these Settings to All Sites

This option allows you to quickly transfer these settings to other sites that are performing initialization. If you will be using the same settings for most or all of your remote sites, you can save time duplicating the setup by marking the Apply these settings to all sites checkbox. When marked, these settings will overwrite any settings for these options at your other sites. If a site is not being initialized, these settings will be offered as defaults the next time you access Initialization for that site.

Hint: If you will be using the same settings for all but a few of your sites, create these settings first, apply them to all sites, then edit the initialization options for each of the sites requiring exceptions.

Note: If you have set up Initialization Security Settings, be cautious in assigning these settings to all sites. If you have the remote "Everyone" group as your default security and select to remove existing security at a site, if that site does not have an Everyone group, the security changes will not be applied at the site. Additionally if you remove existing security at a site that is not currently set to initialize, and later change your default security group to use no security and attempt to perform an initialization for that site, the initialization packet will not be processed. If your initialization packet fails to process, you must edit your default security in Global Options to select a security group that exists in the central site and resend your packet. (To resend a packet, access the Remote Site Maintenance dialog box, highlight the site, and click **Edit**. The **Site preferences** button will change to a **Resend packet** button. Click this button to give Data Synchronization Server instructions to re-process this initialization packet. Optionally, you can reset this site using the Reset option in Server Options.

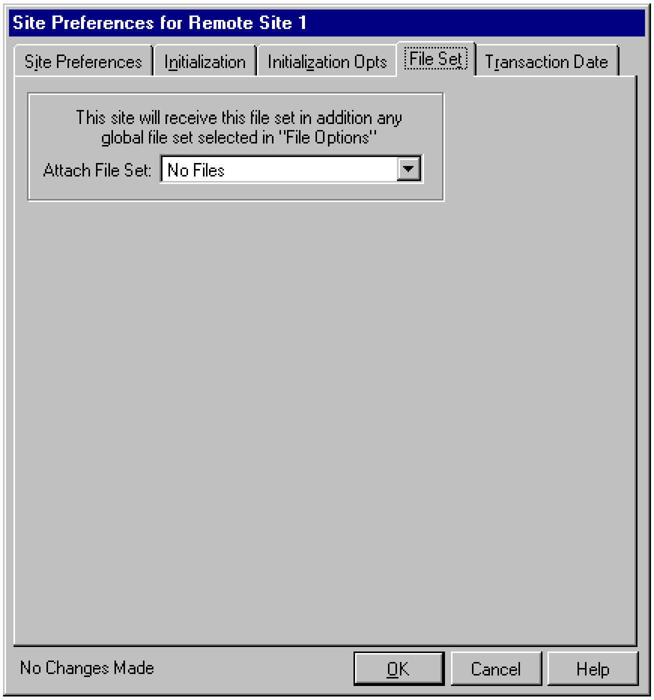
Attach File Sets

In addition to a global file set which can be sent out to all sites, it is possible to select a file set that will only be sent to a selected site. (It is therefore possible to send two file sets out with any synchronization packet.)

To Attach a Site-Specific File Set:

1. Click the **File Set** tab.

   The File Set page will open:



File Set Page

2. In the Attach File Set: drop-down list, select a previously defined file set that will be sent to the remote site during synchronization.

   Note: This file set will continue to be transferred upon each synchronization to this site until you edit this selection. If you do not wish to send a file set, select the No Files option from this list.

3. Click **OK** when you are satisfied with your selections, or continue with the *Transaction Cutoff Date* section.

Transaction Cutoff Date

Data Synchronization Server keeps all changes to your central installation in transaction files. If you are synchronizing based on transactions, each time the server processes a site it looks for the date and time that a packet was last created for that site, and only includes transactions entered after that date/time in the current packet. If you need to include transactions prior to this, you can do so by specifying the transaction cutoff date and time.

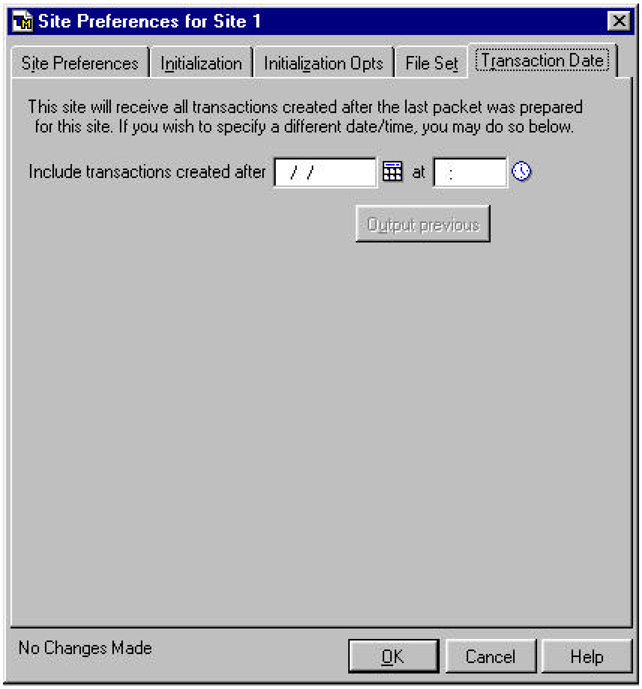
Note: This will only be applied to databases that have been set to synchronize based on new transactions (as opposed to all records).

Note: If you have performed a rebuild that deletes transaction records, only records after the deletion date specified in the rebuild process will be available for synchronization.

To Set a Transaction Cutoff Date:

1. Click the **Transaction Date** tab.

   The Transaction Date page will open:



Transaction Date Page

2. Enter the earliest date and time for transactions to be included in the packet in the Include transactions created after date and time fields. Leave these fields blank to only include transactions following the most recent packet.

   Hint: You will not need to make an entry in this field for routine synchronization. This feature would only be used in special circumstances. For example, if you are forced to restore a backup of your remote installation, enter the date of the backup so transactions between that date and the most recent packet will be included.

   Note: Once a packet has been created, the transaction cutoff date will update to reflect the date and time of that packet.

3. If you want to output the previous packet, click **Output previous**. This button will not be available if the site has not yet been synchronized.

   A message will appear displaying the date and time of the earliest transactions included in the last packet and asking if you want to send these transactions again.

   Note: This date will reflect the transaction cutoff date that was used the last time the site was processed. If the same packet was processed more than once by leaving it in the outbox and updating it with new transactions, this date will not include the entire contents of the packet.

or Click **OK** when satisfied with your selections.

4. Click **Yes** to output the previous transactions.

or Click **No** to cancel.

   If you click **Yes**, the specified date and time will appear in the Include transactions created after fields.

5. Edit these fields if necessary

6. Click **OK** when you are satisfied with your settings.

   You will be returned to the Remote Site Maintenance dialog box.

7. Click **Save** at the Remote Site Maintenance dialog box to save your initialization settings and any site preferences.

   Note: You must click **Save** in the Remote Site Maintenance dialog box to save all changes. Clicking **Cancel** from this dialog box will discard any changes made, even though **OK** was clicked on the Site Preferences dialog box.

   A display on the Remote Site Maintenance dialog box will indicate whether:

   - Site is set for one time initialization Indicates that this site is set to initialize on the next synchronization, then perform a standard synchronization thereafter.
   - Site is set for continuous initialization Indicates that this site is set to initialize every time synchronization is performed.

- Site is active indicates that this is an active site, but has not been set for initialization. A standard synchronization will be performed. (This is only applicable to sites that have been synchronized at least once.)
- Site is being added indicates that this site is currently being added and has not yet been set up for initialization. Once you have accessed Site Preferences or saved a new site, this will be changed to Site is set for one time initialization. (You must perform initialization on all new sites, or any time a site's Site ID is changed.)

Setting Field Rules

If you were required to manually synchronize your databases—that is, update changed information from one site to another manually—you would probably make decisions about what to change and when. For example, you might decide not to replace the contents of a field with an empty field; or you may decide that the data coming in for a particular numeric field should be added to the existing information instead of replacing it.

Field rules allow you to give instructions to Data Synchronization Server to do this for you whenever you synchronize to the central location from your remote sites. Rules can be established for every field that has been set up for synchronization. You can control how each field will behave when a change comes in from a remote site. You are not limited in this (such as by being forced to have all fields in a particular level, or all fields of the same type, behave a certain way).

Using field rules, you choose from among a selection of pre-defined rules to control how and when a field in the central installation is synchronized, then have the option of creating an expression to control exactly when that rule is applied.

Note: There is a site preference that allows you the option of accepting only newer contact data. This is the only replacement criterion that is applied when synchronizing from the central installation to the remote site. Field rules only pertain when synchronizing from the remote site to the central. If the Validate contact record revisions at field level option is also selected when synchronizing to central, Data Synchronization Server will first determine if the incoming change is more recent. If it is, the applicable field rule will then be applied. If it is not, the field will not be changed, regardless of your field rules.

In addition to setting replacement rules for your fields, you have the option of controlling what happens to data that is getting replaced. If you have a field that contains crucial information, you may wish to be able to compare the incoming information to the data already existing in the field. The field rules feature allows you the option of moving the data that is being replaced to a memo field where you can retain it or review it. Before establishing field rules you need to let Data Synchronization Server know which memo field you want to use for each level of each database.

To Select the Memo Fields:

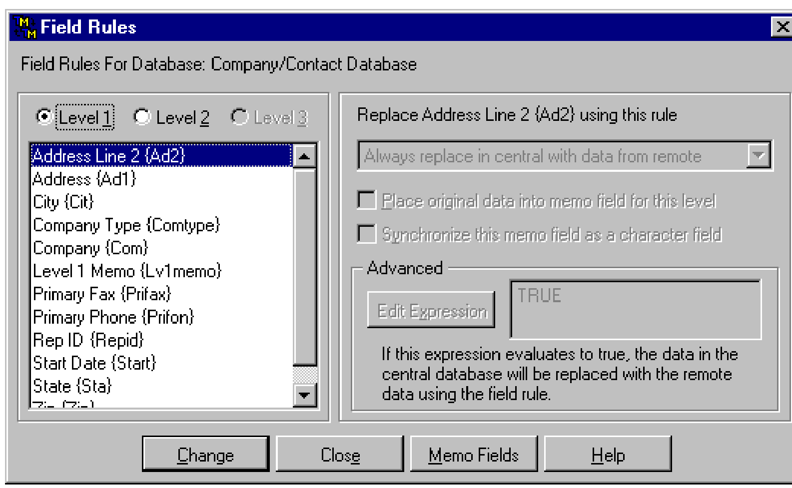
1. From the Data Synchronization Server **Setup** menu, select **Field Rules**.

   A Choose Database dialog box will open:

Sample Choose Database Dialog Box

2. Highlight the database you want to use and click **Select**.

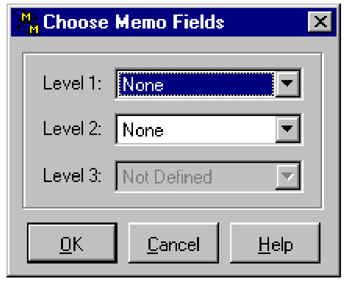
   The Field Rules dialog box will open:



Field Rules Dialog Box

3. If you want to be able to review the data that has been replaced during synchronization, click **Memo Fields**.

   The Choose Memo Fields dialog box will open:



Sample Choose Memo Fields Dialog Box

The drop-down lists will contain a listing of all memo fields on each level of the current database.

4. Choose a memo field for each level to contain data that has been replaced during synchronization.

   Note: This memo field will be used for all fields in this database level for which you choose to store replaced data.

   WARNING! If you establish a field rule for this memo field that replaces the contents with the data from the field in the remote sites, your retained edits will be overwritten. It is best to devote a memo field solely to the purpose of containing overwritten data. If you are unable to do this, make sure you select a rule for this field that merges data instead of replacing it.

5. When satisfied with your selections, click **OK**.

To Establish Field Rules:

1. From the Data Synchronization Server **Setup** menu, select **Field Rules**.

   A Choose Database dialog box will open.

2. Highlight the database you want to use and click **Select**.

   The Field Rules dialog box will open.

3. From the level radio buttons, choose the database level containing the field for which you want to establish field rules.

   All fields (with the exception of unique number fields) for the specified level will appear in the list beneath the radio buttons.

4. Highlight the field on the list and click **Change**.

   The right side of the screen will become active and the **Change** button will toggle to **Save**. The field name will appear in the Replace [field] using this rule prompt. The selections on the drop-down list will vary depending on the type of field selected.

5. If you want this memo field treated as a character field, mark the Synchronize memo field as a character field checkbox.

Hint: This option will cause any old data in the memo field to be overwritten with new data. This would be useful in situations where the addition of new data would indicate that the old data is obsolete. For example, if you are using the memo field to hold directions to the customer's office and the customer moves, the old directions should be discarded. Also, the standard notepad stamp will not be applied with this option selected.

Note: This field rule will be applied to both the server and remotes. All other field rules will continue to be applied only at the server.

6. Make a selection from the drop-down list to specify under what circumstance the field will be updated from the remote sites.

   Hint: This setting can be further defined by creating an expression. If the specific circumstance you want to use is not included on this list, leave the default setting Always replace in central with data from remote and create an expression to qualify this as necessary.

   WARNING! If you synchronize an empty memo field to the central site with Always merge in central with data from remote selected, any existing data in the memo field in central will be deleted. This option should only be used if you want to clear the memo field in the central installation if it has been cleared in the remote.

7. If you want to retain replaced data in the memo field selected for use with this level, mark the Place original data into memo field checkbox. (If you have not yet selected a memo field, you will be given the opportunity to do so as soon as you place a mark in this checkbox.)

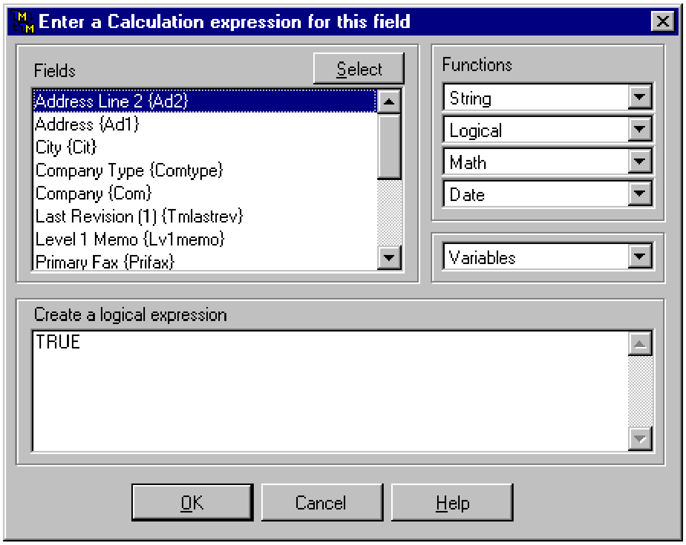
   Note: This checkbox is field specific. If you want to retain original data for every field, you must select each field in turn and mark this checkbox.

   Note: Notepads can become quite large with this option selected. If you are using this feature you should regularly delete notepad entries that are obsolete.

   The Advanced section allows you to further qualify this field rule. If the expression is left at the default TRUE, the field will always be replaced according to the rule selected in step 6. If an expression is entered in this section, the field will only be replaced according to the rule selected in step 6 if the expression is also applicable.

8. To create an expression, click the **Edit Expression** button.

The Expression Builder dialog box will open:



Expression Builder Dialog Box

9. Create the desired expression. (If you need help on building expressions, search on *Expression Builder* in TeleMagic's on-line help.)

   Note: The list of variables used in Field Rules is different than those available in other areas of TeleMagic. The variables included in Data Synchronization Server include m.cADDEDBY, which allows you to create an expression based on the user who originally added the record; and m.SITEDATA, which allows you to create an expression based on information coming in from this field in the remote site. (For example, the expression **m.SITEDATA>50,000** would cause a numeric field to be replaced only if the incoming data from the remote site exceeds 50,000.)

10. When satisfied with your expression, click **OK**.

    You will return to the Field Rules dialog box with the expression appearing in the Advanced section.

11. When satisfied with your selections, click **Save**.

12. Repeat steps 4 through 11 for each field you want to change.

13. When all fields in this database have been completed, click **Close**.

    You will be returned to the Choose Database dialog box.

14. Select another database and click **Select**.

or Click **Close** to return to the TeleMagic Data Synchronization Server main screen.

Command Line Parameters

A command line is the information used to launch a program, usually consisting of the path and executable file name for the program. (An example of a command line would be F:\TM\DSSERVER.EXE.) A command line parameter is an additional instruction entered at the end of the path. Command line parameters can either be attached to an icon, which will cause the parameter to be effected every time the icon is used, or added to the end of the command line in a Run dialog box.

To Attach Command Line Parameters to an Icon:

1. Right-click the shortcut on your desktop, select **Properties** from the menu, and select the **Shortcut** tab.
2. In the Target: field, type a space after the existing text and enter the parameter(s).

   Note: See below for a list of command line parameters for use with Data Synchronization Server.
3. Click **OK**.

   The command line parameter will be used (until it is changed or removed) each time you launch Data Synchronization Server using the icon.

To Use Command Line Parameters with the Run Dialog Box:

1. From the taskbar, click **Start** and select **Run…** from the Start menu.

   The Run dialog box will open.
2. In the Open: field, type a space after the path and filename of DSS Central or Satellite, and enter the parameter.

You can use the following command line parameters with the central, satellite, and remote installations of Data Synchronization Server:

/U=***user ID***	This parameter will fill in the specified User ID at the Logon dialog box when Data Synchronization Server opens. Enter a valid TeleMagic three-character User ID after the equal sign.
/PW=***user password***	This parameter will fill in the specified password at the Logon dialog box. (It must be used with the /U= parameter.) Enter the TeleMagic password for the user selected with the /U= parameter after the equal “=” sign. If both the User ID and password are valid, the program will bypass the Logon dialog box.
/R	A rebuild will be run when Data Synchronization Server starts.

/D=***# of days***	If you are performing a rebuild, this parameter will cause all transactions older than the specified number of days to be deleted. Enter the number following the equal "=" sign. (This parameter must be used with the /R parameter.)

You can use the following parameters at the central or satellite installation of Data Synchronization Server only:

/IDLETIME=***minutes***	Use this command line parameter when starting Data Synchronization Server to specify the amount of time DSS stays idle between processes. Enter the number of minutes after the equal sign.
/S=***server ID***	This parameter will launch Data Synchronization Server with the specified server already selected. Enter a valid three-character Server ID for a server previously set up in Data Synchronization Server after the equal "=" sign.
/P	This parameter will cause Data Synchronization Server to be launched directly in process mode. (If you want more information on process mode, see the chapter *Synchronizing Your Data*.)
/SITE=***site_ID(s)***	This parameter will specify that only the listed sites should be processed. Enter the three-character Site ID for each site that you want processed after the equal "=" sign, separated by commas. (e.g., /SITE=xxx,yyy).

You can use the following parameter at the satellite and remote installations of Data Synchronization Server only:

/ALLRECS	If you process the outbox after launching a remote site or a satellite site with this parameter, Data Synchronization Server will ignore transactions and send all contact and activity records to the server. (If this is used on a satellite, it will only be applied to synchronization to the central site. Synchronization with the satellite's remotes will follow the Database Preferences established for those sites.) This parameter can be used when setting up synchronization with a remote site that already contains records. It will allow you to quickly transfer the records to the new server.

WARNING! If you are not using field rules or validating by date and time at the server, this will completely overwrite the records at the server with the records from the remote. Even if you are using date and time validation, remember that this compares the last transaction dates. If there is no transaction for a field at the server (for example, if you have deleted transactions on rebuild), the field will be overwritten from the remote. Only use this option if it is your intention to replace the data at the server with the data from the remote. It is *not recommended* that you attach this parameter to the remote site's icon.

/TD=***date***	This sets a transaction cutoff date at a remote site. All transactions from the specified date and later will be included in the outgoing packet. The date entered must be in the same format as the site's date format, and the date separator must be the hyphen (-) character.

You can use the following parameters at the remote installations of Data Synchronization Server only:

/DETACH	Each remote site knows the server it is attached to. It will only accept packets created by that server. If you have selected to detach a remote site from its server, a final packet must be created for that remote at the server to instruct the site that it is now detached and may accept an initialization packet from a different server. Once another server claims the remote site, the site will automatically be deleted from the list of sites at its original server. If the detachment packet does not reach the site, and the site has been taken off the site list at the original server, you will need to manually detach the site from the server by launching DSREMOTE.EXE with the /DETACH parameter.
/Script=***script_name***	This parameter is used to launch scripts at the remote site. When used, the specified script will run. Enter the desired script name after the equal "=" sign. If there are spaces in the script name, use an underscore "_" character in place of the space. **Example: *remote_script_1***.
/ScriptX=***Script_name***	Similar to the /Script= parameter, this parameter will launch the specified script, then exit Data Synchronization Server when the script has finished running.
/O	If there is a packet existing in the outbox at the remote site, when you process the site you will receive a message giving you the option of overwriting this packet or appending to it. If you know there is a packet in the outbox, you can bypass this message. This parameter will cause the packet in the outbox to be overwritten with the new packet created during processing.
/U	This parameter is similar to the /O parameter, except that it will cause the packet to be updated with new changes without overwriting the existing data in the packet.
/RPLMEMO	This will cause memo fields at the remote site to be overwritten with incoming data in memo fields at the central site.
/X	Exits the program at remote sites after processing.

Sample command line parameter: F:\TM\DSSERVER.EXE /U=JRC /S=DS1 /P

(This will launch Data Synchronization Server at the central site, log in the user JRC, select the server DS1, and begin processing.)

Packet Transfer Options

Data Synchronization Server provides two methods of transferring packets between sites: FTP transfer and TeleMagic Internet Mail. You also have the option of transferring packets manually, using your existing communications server, or any other method of file transfer. There are two steps to this; one, choosing and setting up the transport method, described below; and two, setting up the actual transport, discussed later in the chapter.

The method of packet transfer used is set at the central, satellite and remote sites. At the central and satellite sites, you can also choose a different method of packet transfer for individual remote sites. For more information, see the *Setting Transport Options for Individual Remote Sites* section, later in this chapter.

FTP Transfer

FTP transfer is automated file transfer of your Data Synchronization packets via the Internet. It allows you to automatically establish an Internet connection and send outbox packets to an FTP site. You can also retrieve packets that have been sent from other sites to the FTP site and copy them to your inbox.

Hint: An FTP site is a special address on the Internet that is used for file transfer. To set up an FTP site, contact your Internet Service Provider. (This is required to use FTP transfer.)

Setup of FTP transfer entails giving Data Synchronization Server information on establishing your connection to the Internet and the location of your FTP site. You can also establish how processing should occur for your servers and remote sites and exclude any remote sites that do not have Internet access from FTP transfer. Before you begin setup within Data Synchronization Server, you should set up the workstation(s) that will be used to transfer packets via FTP.

TeleMagic Internet Mail

Data Synchronization Server allows you to attach packets to e-mail messages sent via TeleMagic Internet Mail. Once received, these packets are placed in a temporary holding area until the inbox is processed.

Setup of e-mail transfer entails giving Data Synchronization Server information on your Internet e-mail service. You can also establish how processing should occur for your servers and remote sites and exclude any remote sites that do not have Internet e-mail access.

Workstation Setup

If you have not already done so, you should establish an Internet connection from the workstation that will be used to perform packet transfer. It is recommended that you establish your Internet connection and test it external to Data Synchronization Server before attempting to use packet transfer.

Following are the system requirements for using packet transfer:

- The workstation used to perform packet transfer must be operating under Windows 95, Windows 98, or Windows NT.
- The workstation must have a modem attached.
- The workstation must have Internet access. Dial-Up Networking must be installed on the workstation and a connection established.
- The workstation must have a Dial-up Adapter driver and TCP/IP must be bound to the Dial-up Adapter. This is done automatically when an Internet browser is installed. If you do not have an Internet browser, you may have to manually perform these steps. Contact your network administrator for details.

Selecting the Internet Connection

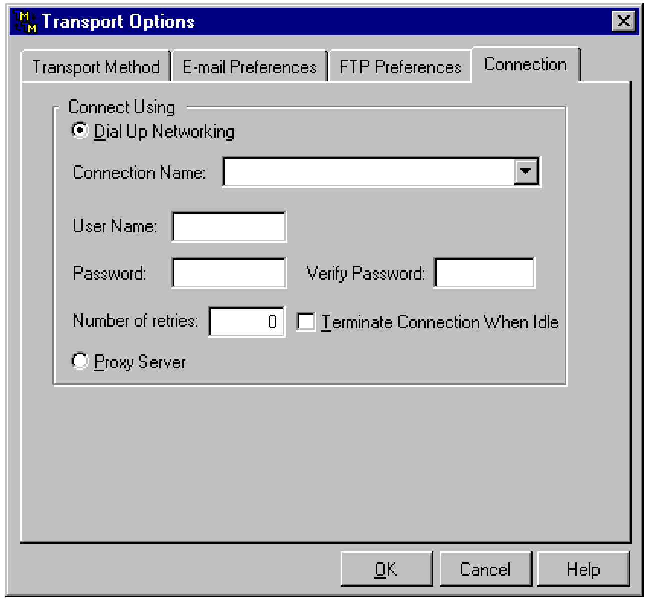
To Select the Internet Connection:

Note: Setup for the Internet connection is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each one.

1. From the Data Synchronization Server **Setup** menu, select **Transport Options…**.

   The Transport Options dialog box will open.
2. Click the **Connection** tab.

   The Connection page will open:



Connection Page

3. A proxy server is a workstation dedicated to providing internet connectivity to other workstations on a network. If you want to use a proxy server, select the Proxy Server radio button.

or If you want to use a Dial-Up Networking connection to the Internet, select the Dial Up Networking radio button.

Note: If you are not sure which of these options you should choose, consult your network administrator.

4. Select the Dial-Up Networking connection you want to use from the Connection Name: drop-down list.

5. In the User Name: field, enter the user name used with the connection selected in step 4.

6. In the Password: field, enter the password used with the connection selected in step 4.

or Leave this field blank if you want to be prompted for the password when DSS accesses the Internet.

Note: It is possible to set up the central and satellite sites to hang up after processing, sit idle until it is time to process again, then automatically dial when it is time to process. If you do not enter a password in this field, it will stop and prompt for the password every time it dials. If you will be using continuous processing and terminating the connection when DSS is idle, it is not recommended that you leave the Password: field blank.

7. If you entered a password in step 6, type it again in the Verify Password: field. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.

8. In the Number of Retries: field, enter the number of times DSS should attempt to connect to the Internet if it cannot get through on the first try.

9. Select Terminate Connection When Idle if you want DSS to disconnect from the Internet when it is not processing. DSS will reconnect each time it processes.

or Unmark this checkbox if you want to remain on-line after processing.

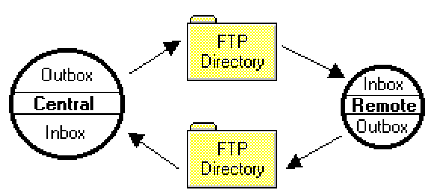
10. When you are satisfied with your settings, click **OK**.

11. Repeat steps 1 through 10 on each workstation that will be used to transfer packets via FTP or TeleMagic Internet Mail.

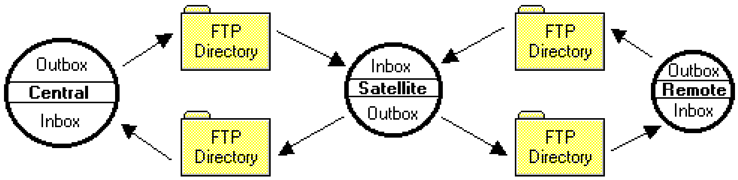
Setting Up FTP Transfer

FTP Site Setup

To use FTP transfer, you must have access to an FTP site. Within Data Synchronization Server, you will specify the location at the FTP site where DSS should place outgoing packets and retrieve incoming packets. You will need to set up the directories on your FTP site for packet storage and retrieval. You will need a minimum of two directories. One directory will contain outgoing packets from the central site. The remote sites will retrieve their packets from this directory. They in turn will place outgoing packets into a second directory from which the central site will retrieve its inbox packets:



If you are using any satellite servers, you will need two additional FTP directories for each satellite's incoming and outgoing packets. The satellite server will reference the central's FTP directories when synchronizing with central, and will reference its FTP directories when synchronizing with its remotes:



When creating your directories, give careful consideration to the naming scheme. The outgoing directory for a server is the incoming directory for a remote, and vice versa. So, if you choose a name that refers to the directory as incoming or outgoing, the relationship will be reversed between the server and its remotes. You will need a set of directories for *each* satellite office. Inside of Data Synchronization Server at each site you will point to the storage and retrieval locations for that site; make sure you have an easy way of keeping track of which directories are associated with which satellite.

Note: Do not confuse the FTP directories with the inbox and outbox. Data Synchronization Server will continue to use the local inbox and outbox during processing. The directories created on the FTP site will only be used for packet transfer between sites. You should *not* set your Data Synchronization Server inbox and outbox to the directories on the FTP site.

It is highly recommended that you secure the area on the FTP server that will be used exclusively with Data Synchronization Server. Make note of your account and password as this information will need to be entered in Data Synchronization Server during FTP transfer setup.

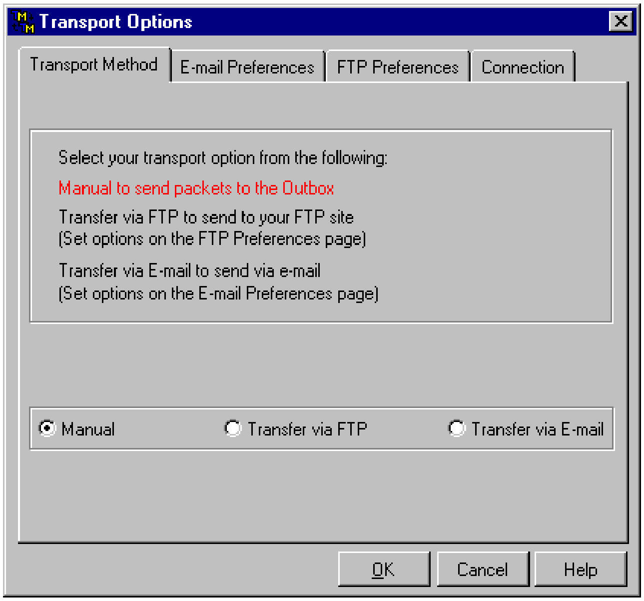
Central Setup

To Set Up FTP Transfer at the Central Site:

Note: Setup for FTP transfer is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each.

1. From the Data Synchronization Server **Setup** menu, select **Transport Options…**.

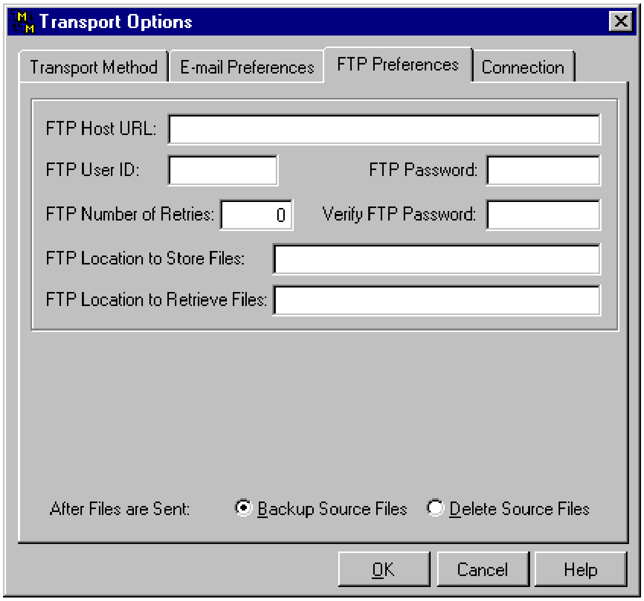
   The Transport Options dialog box will open:



Central Site Transport Method Page

2. Select the Transfer via FTP radio button.
3. Click the **FTP Preferences** tab.

   The FTP Preferences page will open:



Central Site FTP Preferences Page

4. Enter the Internet address of your FTP site in the FTP Host URL: field. This is the path that DSS must use to locate the site. (For example: FTP.MYSITE.COM.)
5. Enter the User ID that you use to log onto the FTP site in the FTP User ID: field.

Note: You must have a user account established on your FTP site.

6. Enter the password that is used with the User ID entered in step 5 in the FTP Password: field.
7. Type the password entered in step 6 again in the Verify FTP Password: field. If the two entries do not match, you will be notified when you click **OK** and be returned to the FTP Password: field to correct the error.
8. In the FTP Number of Retries: field, enter the number of times DSS should attempt to access the FTP site if it is not successful on the first try.

Hint: Do not confuse this with the number of retries used when connecting to the Internet via Dial-Up Networking. DSS will first attempt to dial out and make a general connection to the Internet. If it is unable to make that connection, it will continue to dial the number of times specified in the Dial-Up Networking section of the Connection page. Once an Internet connection is made, it will attempt to connect to the FTP site. If it is unable to connect, it will use this setting to determine how many times it should attempt to access the FTP site. As a general rule, the retries for the Dial-Up connection will be set higher than for connection to the FTP site. (If the Dial-Up connection fails, you will probably want to continue to try until the call goes through. If the connection to the FTP site fails, there is very likely a problem with the site that will need to be handled before you can continue.)

9. In the FTP Location to Store Files: field, enter the location on the FTP site where DSS should post outgoing files that are in its outbox for its remote sites (including any satellites). This is the same location that the satellites and remote sites should use to retrieve files.

10. In the FTP Location to Retrieve Files: field, enter the location on the FTP site where DSS should look for files that have been posted from its satellites and remote sites. (These files will be transferred to the central's inbox.) All satellite sites and all remotes attached to the central site should be set up to store outgoing files in this location.

    Use the After Files are Sent radio buttons to control what happens to the original file after transfer.

11. Select Backup Source Files if you want to retain a copy of the packets after they are transferred. When a file is transferred from the FTP site to the central's inbox, or from the central's outbox to the FTP site, a copy of the file will be retained in its original location. The copy will be renamed with a .BAK extension. This file will be overwritten with the new backup packet the next time a file is transferred. In this way, you will always have copies at the central of the most recent packets that were sent out, and copies on the FTP server of the most recent packets that were picked up for the central site.

    Note: Make sure you allow sufficient disk space at the central's outbox for the backup files.

or If you do not wish to retain copies of the packets that have been transferred, select Delete Source Files. This will move the packet to the appropriate place without retaining a copy in its original location.

12. When you are satisfied with your settings, click **OK**.

    You will be returned to the Data Synchronization Server main screen.

13. Repeat steps 1 through 12 on each workstation that will be used to transfer packets via FTP.

Satellite Setup

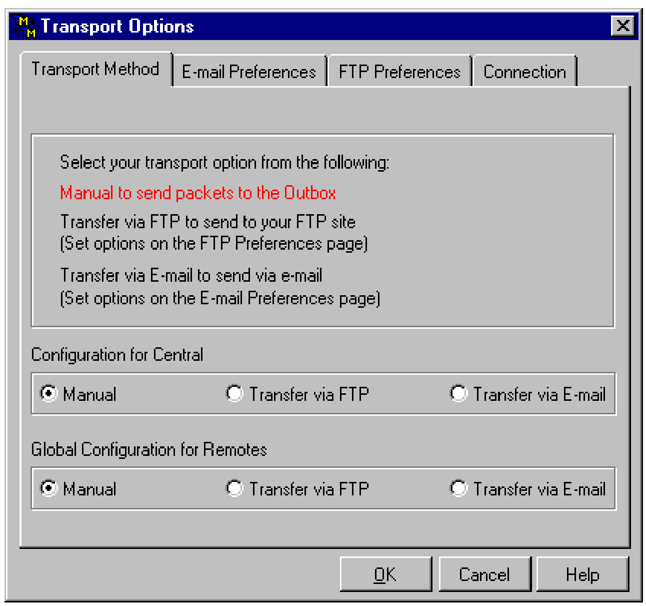
When setting up FTP transfer, keep in mind that the satellite must synchronize with both the central site and its own remote sites. It is very important that the directories on the FTP server, which the satellite uses for packet transfer with the central, are not the same directories it uses with its remotes. If you have multiple satellites, it is also important that each has unique directories for file exchange with its remotes. Two servers should not upload or download files in the same directories.

To Set Up FTP Transfer at the Satellite Site:

Note: Setup for FTP Transfer is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each.

1. From the Data Synchronization Satellite **Setup** menu, select **Transport Options….**

   The Transport Options dialog box will open:



Satellite Site Transport Method Page

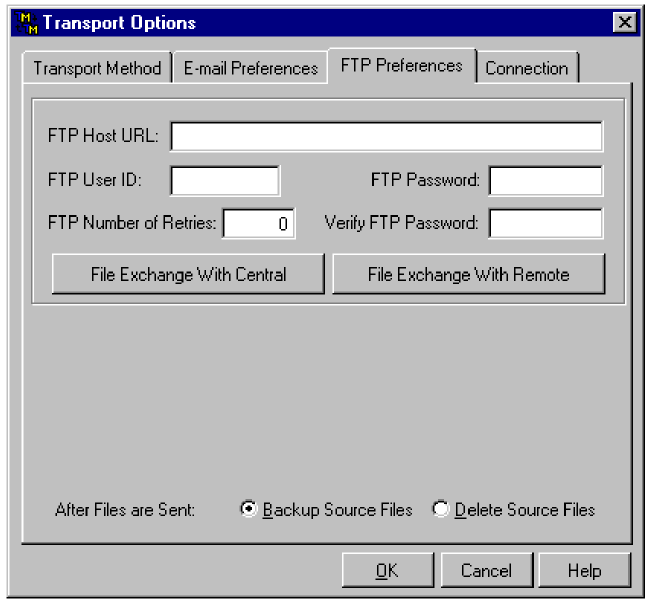
2. From the Configuration for Central radio buttons, select Transfer via FTP.

   Note: This setting must match the Transport Options setting at the central site. If it does not, the satellite will not know where to look for its packets.

3. From the Global Configuration for Remotes radio buttons, select Transfer via FTP.

4. Click the **FTP Preferences** tab.

   The FTP Preferences page will open:



Satellite Site FTP Preferences Page

5. Enter the Internet address of your FTP site in the FTP Host URL: field. This is the path that DSS must enter to locate the site. (For example: FTP.MYSITE.COM.)

6. Enter the User ID that you use to log onto the FTP site in the FTP User ID: field.

   Note: You must have a user account established on your FTP site.

7. Enter the password that is used with the User ID entered in step 6 in the FTP Password: field.

8. Type the password entered in step 7 again in the Verify FTP Password: field. If the two entries do not match, you will be notified when you click **OK** and be returned to the FTP Password: field to correct the error.

9. In the FTP Number of Retries: field, enter the number of times DSS should attempt to access the FTP site before failing if it is unable to get access on the first try.

Hint: Do not confuse this with the number of retries used when connecting to the Internet. DSS will first attempt to dial out and make a general connection to the Internet. If it is unable to make that connection, it will continue to dial the number of times specified in the Dial-Up Networking section of the Connection page. Once an Internet connection is made, it will attempt to connect to the FTP site. If it is unable to connect, it will use this setting to determine how many times it should attempt to access the FTP site. As a general rule, the retries for the Dial-Up connection will be set higher than for connection to the FTP site. (If the Dial-Up connection fails, you will probably want to continue to try until the call goes through. If the connection to the FTP site fails, there is very likely a problem with the site that will need to be handled before you can continue.)

10. Click the **File Exchange with Central** button to define the directories on the FTP site where the satellite office should post and retrieve packets for synchronization with the central site.
11. In the FTP Location to Store Files: field, enter the location on the FTP site where DSS should post outgoing files that are in its outbox for the central site. (Enter the location that has been established at the central site for file retrieval.)
12. In the FTP Location to Retrieve Files: field, enter the location on the FTP site where DSS should look for files that have been posted by the central site. Files in this directory will be transferred to the satellite's inbox. (Enter the location that has been established at the central site for posting files.)
13. Click **OK** to save these settings and return to the FTP Preferences page.

or Click **Cancel** to return to the FTP Preferences page without saving the changes.

14. Click the **File Exchange with Remotes** button to define the directories on the FTP site where the satellite office should post and retrieve packets for synchronization with its remote sites.

WARNING! Do not use the same directories that are being used by the central site or another satellite office. Each server must have its own directories that do not contain files for other servers.

15. In the FTP Location to Store Files: field, enter the location on the FTP site where DSS should post outgoing files that are in its outbox for its remote sites. This is the same location that the remote sites should use to retrieve files.
16. In the FTP Location to Retrieve Files: field, enter the location on the FTP site where DSS should look for files that have been posted by the remote sites. Files in this location will be transferred to the satellite's inbox. (All remote sites attached to this server should be set up to store outgoing files in this location.)

17. Click **OK** to save these settings and return to the FTP Preferences page.

or Click **Cancel** to return to the FTP Preferences page without saving the changes.

Use the After files are sent radio buttons to control what happens to the original file after transfer.

18. Select Backup Source Files if you want to retain a copy of the packets after they are transferred. When a file is transferred from the FTP site to the satellite's inbox, or from the satellite's outbox to the FTP site, a copy of the file will be retained in its original location. The copy will be renamed with a .BAK extension. This file will be overwritten with the new backup packet the next time a file is transferred. In this way, you will always have copies at the satellite of the most recent packets that were sent out, and copies on the FTP server of the most recent packets that were picked up for the satellite site.

Note: Make sure you allow sufficient disk space at the satellite's outbox for the backup files.

or If you do not wish to retain copies of the packets that have been transferred, select Delete Source Files. This will move the packet to the appropriate place without retaining a copy in its original location.

19. When you are satisfied with your settings, click **OK**.

You will be returned to the Data Synchronization Server – Satellite main screen.

20. Repeat steps 1 through 19 on each workstation that will be used to transfer packets via FTP.

Remote Setup

It is important when setting up your remote sites for use with FTP transfer that you know to which installation of Data Synchronization Server the site is attached (the remote site's server). You must also know the locations on the FTP site that server uses for file storage and retrieval.

To Set Up FTP Transfer at the Remote Site:

Note: Setup for FTP transfer is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each.

1. From the Data Synchronization Remote **Setup** menu, select **Transport Options…**.

The Transport Options dialog box will open:

2. Select the Transfer via FTP radio button.

   Note: This setting must match the setting in Transport Options at the central or satellite installation which acts as server for this remote site. If the settings do not match, the remote will not know where to look for its packets. This setting can also be configured for each remote at the central or satellite site which acts as server for the remote. The transport option that is selected at the server will be sent in each packet, and will override the transport option selected at the remote.

3. Click the **FTP Preferences** tab.

   The FTP Preferences page will open.

4. Enter the Internet address of your FTP site in the FTP Host URL: field. This is the path that DSS must enter to locate the FTP site. (For example: FTP.MYSITE.COM.)

5. Enter the User ID that you use to log onto the FTP site in the FTP User ID: field.

   Note: You must have a user account established on your FTP site.

6. Enter the password that is used with the User ID entered in step 5 in the FTP Password: field.

7. Type the password entered in step 6 again in the Verify FTP Password: field. If the two entries do not match, you will be notified when you click **OK** and be returned to the FTP Password: field to correct the error.

8. In the FTP Number of Retries: field, enter the number of times DSS should attempt to access the FTP site before failing if it is unable to get access on the first try.

   Hint: Do not confuse this with the number of retries used when connecting to the Internet. DSS will first attempt to dial out and make a general connection to the Internet. If it is unable to make that connection, it will continue to dial the number of times specified in the Dial-Up Networking section of the Connection page. Once an Internet connection is made, it will attempt to connect to the FTP site. If it is unable to connect, it will use this setting to determine how many times it should attempt to access the FTP site. As a general rule, the retries for the Dial-Up connection will be set higher than for connection to the FTP site. (If the Dial-Up connection fails, you will probably want to continue to try until the call goes through. If the connection to the FTP site fails, there is very likely a problem with the site that will need to be handled before you can continue.)

9. In the FTP Location to Store Files: field, enter the location on the FTP site where DSS should post outgoing files that are in this site's outbox. (Enter the location that has been established at the site's server—either the central or a satellite server—for file retrieval.)

10. In the FTP Location to Retrieve Files: field, enter the location on the FTP site where DSS should look for files that have been posted for this site from its server. files in this directory for this remote site will be transferred to the site's inbox. (Enter the location that has been established at the site's server for posting files.)

    Use the After Files are Sent radio buttons to control what happens to the original file after transfer.

11. Select Backup Source Files if you want to retain a copy of the packets after they are transferred. When a file is transferred from the FTP site to the remote's inbox, or from the remote's outbox to the FTP site, a copy of the file will be retained in its original location. The copy will be renamed with a .BAK extension. This file will be overwritten with the new backup packet the next time a file is transferred. In this way, you will always have copies at the remote of the most recent packets that were sent out, and copies on the FTP server of the most recent packets that were picked up for the remote site.

or If you do not wish to retain copies of the packets that have been transferred, select Delete Source Files. This will move the packet to the appropriate place without retaining a copy in its original location.

12. When you are satisfied with your settings, click **OK**.

    You will be returned to the Data Synchronization Remote main screen.

13. Repeat steps 1 through 12 on each workstation that will be used to transfer packets via FTP.

Setting Up Internet E-mail Transfer

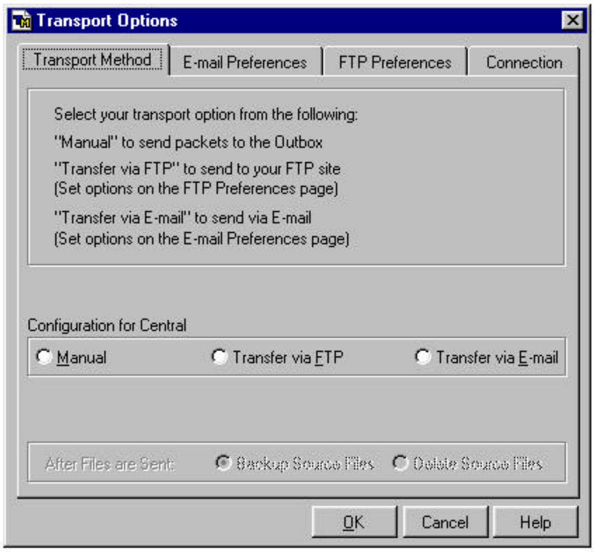
Central Setup

To Set Up Internet E-mail Transfer at the Central Site:

There are several ways to connect to the Internet and exchange e-mail. Much of the information required in this procedure must be obtained from either your network administrator or from your Internet Service Provider.

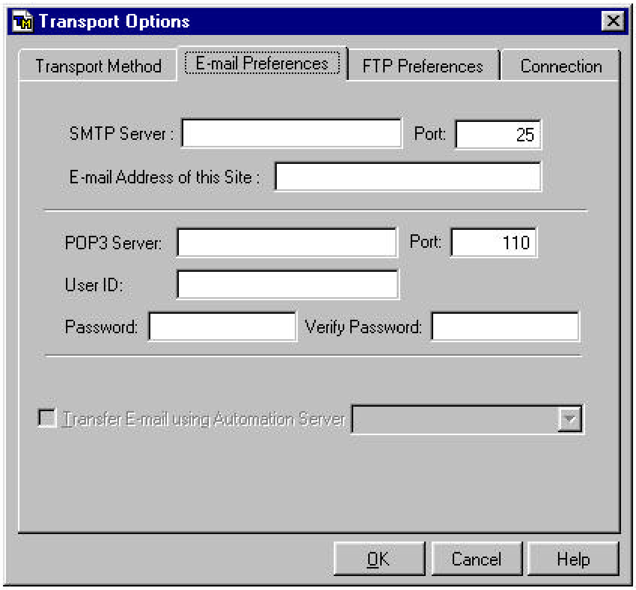
Note: Setup for Internet e-mail transfer is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each.

1. From the Data Synchronization Server **Setup** menu, select **Transport Options…**.
   The Transport Options dialog box will open:



Central Site Transport Method Page

2. Select the Transfer via E-mail radio button.
3. Click the **E-mail Preferences** tab.
   The E-mail Preferences page will open:



4. Enter the outgoing mail server in the SMTP Server: field. This is the server that is used to send mail. (For example: SMTP.MYSITE.COM.) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the SMTP Port field unless instructed to do so by the network administrator or your ISP's representative.

5. Enter the E-mail address to be used with this site in the E-mail Address of This Site: field.

   Note: We highly recommend that you contact your ISP and set up an e-mail account which is dedicated to DSS. If you use a personal e-mail account, e-mail messages that do not contain packets will not be retrieved from the e-mail server by DSS.

6. Enter the incoming mail server in the POP3 Server: field. This is the server which is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the POP3 Port field unless instructed to do so by the network administrator or your ISP's representative.

7. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.

8. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.

9. Enter the password in the Verify Password: field. This password must match that entered in step 8. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.

10. Mark the Transfer E-mail using Automation Server checkbox to use this option. If you are using this option, you must select the Automation Server queue from the drop-down list. For instructions on setting up the Automation Server to send and/or receive packets, see the *Transferring Packets via E-mail Using the Automation Server* section, later in this chapter.

    Use the After Files are Sent radio buttons to control what happens to the original file after transfer.

11. Select Backup Source Files if you want to retain a copy of the packets after they are transferred. When a file is transferred via e-mail, a copy of the file will be retained in the outbox directory. The copy will be renamed with a .BAK extension. This file will be overwritten with the new backup packet the next time a file is transferred. In this way, you will always have copies at the central of the most recent packets that were sent via e-mail.

    Note: Make sure you allow sufficient disk space at the central's outbox for the backup files.

or If you do not wish to retain copies of the packets that have been transferred, select Delete Source Files. This will send the packet without retaining a copy in the outbox.

12. When you are satisfied with your settings, click **OK**.

You will be returned to the Data Synchronization Remote main screen.

13. Repeat steps 1 through 12 on each workstation that will be used to transfer packets via TeleMagic Internet Mail.

Satellite Setup

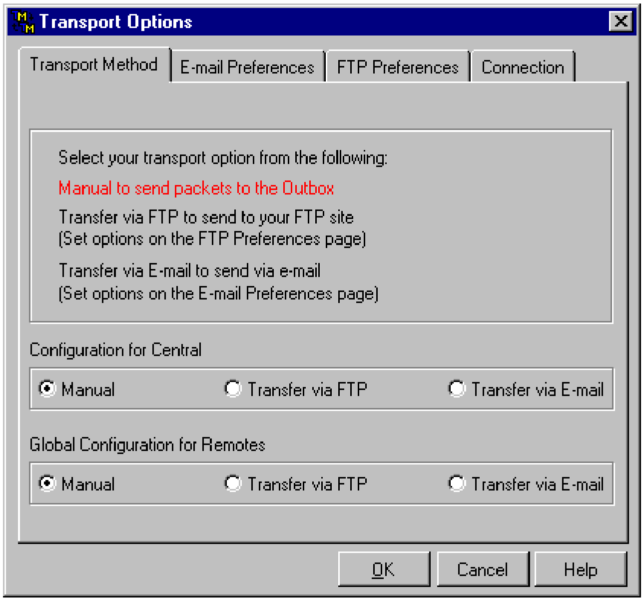
To Set Up Internet E-mail Transfer at the Satellite Site:

There are several ways to connect to the Internet and exchange e-mail. Much of the information required in this procedure must be obtained from either your network administrator or from your Internet Service Provider.

Note: Setup for Internet e-mail transfer is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each.

1. From the Data Synchronization Server **Setup** menu, select **Transport Options…**.

   The Transport Options dialog box will open:



Satellite Site Transport Method Page

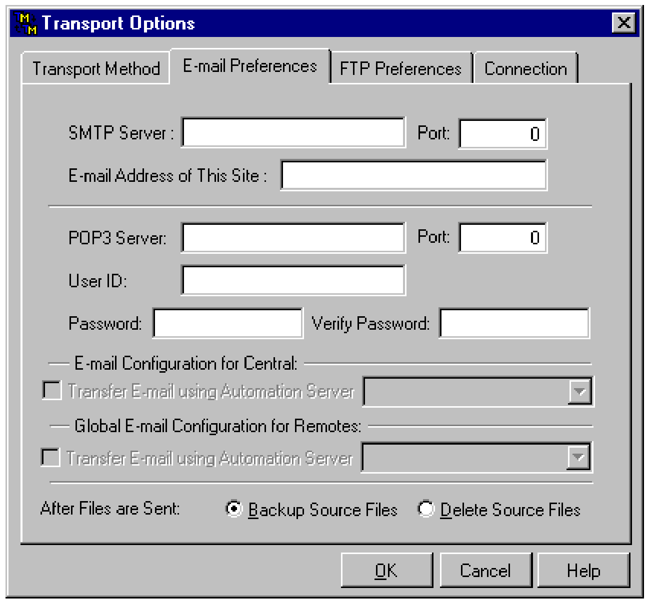
2. From the Configuration for Central radio buttons, select Transfer via E-mail.

   Note: This setting must match the Transport Options setting at the central site. If it does not, the satellite will not know where to look for its packets.

3. From the Global Configuration for Remotes radio buttons, select Transfer via E-mail.

4. Click the **E-mail Preferences** tab.

   The E-mail Preferences page will open:



Satellite Site E-mail Preferences Page

5. Enter the outgoing mail server in the SMTP Server: field. This is the server that is used to send mail. (For example: SMTP.MYSITE.COM.) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the SMTP Port field unless instructed to do so by the network administrator or your ISP's representative.

6. Enter the E-mail address to be used with this site in the E-mail Address of This Site: field. This setting can be overwritten by the E-mail Address setting in Remote Site Maintenance at the central site.

7. Enter the incoming mail server in the POP3 Server: field. This is the server that is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

> **Warning!** Do not change the value in the POP3 Port field unless instructed to do so by the network administrator or your ISP's representative.

8. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.

9. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.

10. Enter the password in the Verify Password: field. This password must match that entered in step 9. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.

11. Under E-mail Configuration for Central mark the Transfer E-mail using Automation Server checkbox to use this option. If you are using this option, you must select the Automation Server queue from the drop-down list.

12. Under Global E-mail Configuration for Remotes mark the Transfer E-mail using Automation Server checkbox to use this option. If you are using this option, you must select the Automation Server queue from the drop-down list.

    Use the After Files are Sent radio buttons to control what happens to the original file after transfer.

13. Select Backup Source Files if you want to retain a copy of the packets after they are transferred. When a file is transferred via e-mail, a copy of the file will be retained in the outbox directory. The copy will be renamed with a .BAK extension. This file will be overwritten with the new backup packet the next time a file is transferred. In this way, you will always have copies at the satellite of the most recent packets that were sent via e-mail.

    Note: Make sure you allow sufficient disk space at the satellite's outbox for the backup files.

or If you do not wish to retain copies of the packets that have been transferred, select Delete Source Files. This will send the packet without retaining a copy in the outbox.

14. When you are satisfied with your settings, click **OK**.

    You will be returned to the Data Synchronization Server – Satellite main screen.

15. Repeat steps 1 through 14 on each workstation that will be used to transfer packets via TeleMagic Internet Mail.

Remote Setup

To Set Up Internet E-mail Transfer at the Remote Site:

There are several ways to connect to the Internet and exchange e-mail. Much of the information required in this procedure must be obtained from either your network administrator or from your Internet Service Provider.

Note: Setup for Internet e-mail transfer is workstation specific. You must be at the workstation that will be used for packet transfer when performing these steps. If you will be using multiple workstations for packet transfer, you must repeat these steps on each.

1. From the Data Synchronization Server **Setup** menu, select **Transport Options…**.

   The Transport Options dialog box will open.

2. Select the Transfer via E-mail radio button.

   Note: This setting must match the setting in Transport Options at the central or satellite installation which acts as server for this remote site. If the settings do not match, the remote will not know where to look for its packets. This setting can also be configured for each remote at the central or satellite site which acts as server for the remote. The transport option that is selected at the server will be sent in each packet, and will override the transport option selected at the remote.

3. Click the **E-mail Preferences** tab.

   The E-mail Preferences page will open.

4. Enter the outgoing mail server in the SMTP Server: field. This is the server which is used to send mail. (For example: SMTP.MYSITE.COM.) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the SMTP Port field unless instructed to do so by the network administrator or your ISP's representative.

5. Enter the E-mail address to be used with this site in the E-mail Address of This Site: field. This setting can be overwritten by the E-mail Address setting in Remote Site Maintenance at the central or satellite installation which acts as server for this site.

6. Enter the incoming mail server in the POP3 Server: field. This is the server which is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the POP3 Port field unless instructed to do so by the network administrator or your ISP's representative.

7. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.

8. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.

9. Enter the password in the Verify Password: field. This password must match that entered in step 8. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.

10. Mark the Transfer E-mail using Automation Server checkbox to use this option. If you are using this option, you must select the Automation Server queue from the drop-down list.

    Use the After Files are Sent radio buttons to control what happens to the original file after transfer.

11. Select Backup Source Files if you want to retain a copy of the packets after they are transferred. When a file is transferred via e-mail, a copy of the file will be retained in the outbox directory. The copy will be renamed with a .BAK extension. This file will be overwritten with the new backup packet the next time a file is transferred. In this way, you will always have copies at the remote of the most recent packets that were sent via e-mail.

or If you do not want to retain copies of the packets that have been transferred, select Delete Source Files. This will send the packet without retaining a copy in the outbox.

12. When you are satisfied with your settings, click **OK**.

    You will be returned to the Data Synchronization Remote main screen.

13. Repeat steps 1 through 12 on each workstation that will be used to transfer packets via TeleMagic Internet Mail

Creating Scripts at the Remote Sites

In the *Edit Global Scripts* section under *Global Options* earlier in this chapter, you were given instructions for creating scripts at the central location that can be transferred to your sites during initialization. Data Synchronization Server also gives you the option of creating scripts directly in the remote installation.

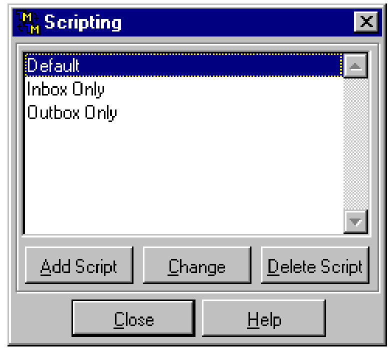
To Create a Script:

1. Open Data Synchronization Server on your remote site following steps 1 through 4 under *Opening Data Synchronization Server at the Remote Site* in the *Basic Setup* chapter.

   The TeleMagic Data Synchronization Remote dialog box will open.

2. From the Data Synchronization Remote **Setup** menu, select **Script Setup**.

The Scripting dialog box will open:



Scripting Dialog Box

Note: This dialog box may already contain scripts that have been created at the central site and transferred on initialization.

4. Click **Add Script**.

   The Remote Script Setup dialog box will open:

Remote Script Setup Dialog Box

   The name of the script will default to New Script.

5. Click in the Script Name field and type a unique name for your script.
6. Click **Add** to add the first step in this script.

   The right side of the dialog box will become active and your cursor will appear in the Describe this step: field. The **Save Script** button will toggle to **Save**.

7. Enter a description of the first step of the script.

   Example: Process Inbox

8. Under Run this step at, choose one of the following options:

   Absolute Time allows you to set a time for the step to begin in 12-hour format, followed by an ***a*** for a.m. or a ***p*** for p.m. (If you enter a time in 24-hour format, it will be translated into 12-hour format.)

   Relative Time allows you to set the time in minutes for this step to begin, relative to the time established for the previous step (or to launching the script if this is the first step).

   Note: If you are processing the inbox or outbox in the previous step in the script (as defined in instruction step 13, below), the time will be relative to when processing is completed. If you are running a program (see step 13), it will be relative to when the program is first launched. For example, if you are running a program in the previous step and set it to begin at 9:00 and set a relative time of 45 minutes, the step will begin at 9:45.

   Hint: If you set a relative time of zero for the first step, the step will be executed immediately when the script is launched at the remote site.

9. Select one of the and do the following options to define what should occur in this step:

   Process Inbox will process any packet from the central or satellite installation currently in the site's inbox.

   Process Outbox will process existing transaction records into an outgoing packet and place it in the site's outbox.

   Delete Outbox Packet will delete any packet currently existing in the site's outbox. This can be used to clear the outbox of old packets before processing. Alternatively, if a program is run that copies a packet to another location and leaves the original packet in the outbox, this option can be used to remove the original packet. Care should be exercised not to delete a packet that has not been received by the server.

   Send Packet via Transport will send the packet according to the selections you have made under Transport Options—i.e., via FTP or e-mail transfer. (Consider using this step after the outbox has been processed.)

   Retrieve Packet via Transport will retrieve the packet according to the selections you have made under Transport Options. (Consider using this step before processing the inbox.)

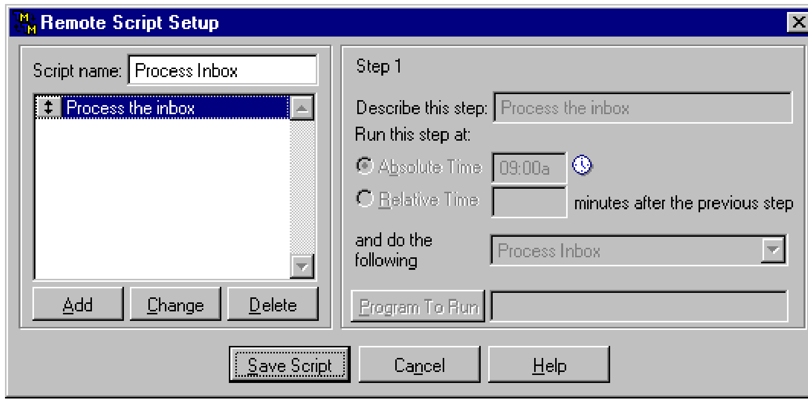
   Send/Retrieve via Transport will retrieve any incoming packet for the site then post any existing outbox packet according to the selections you have made under Transport Options.

   Run a program allows you to run another program or batch file to perform such functions as virus scanning or file copying.

10. If you chose Run a program in step 9, enter the path and executable name for the program or click the **Program To Run** button to locate the file using a Windows Open dialog box.

11. When satisfied with this step, click **Save**.

    The step name will appear beneath the script name:



12. Repeat steps 6 through 11 for each step you want to add to the script.

13. If you want to change the order in which any step in the script is executed, use the mover box  next to the step description to drag the steps into the appropriate order.

14. If you want to change the details of any step, highlight it on the list and click **Change**.

    The step details will become available and the **Save Script** button will toggle to **Save**.

15. Make any necessary changes to the step and click **Save**.

16. If you want to remove any step from the script, click **Delete**.

    A message will appear asking you to confirm your decision to delete.

17. Click **Yes** and the step will be deleted.

18. When you are satisfied with your script, click **Save Script**.

    Your new script will appear in the Scripting dialog box.

Transferring Packets via E-mail Using the Automation Server

Using the Automation Server to handle the interchange of packets among your central, satellite, and remote sites can help to simplify your transportation procedure. The Automation Server can be used to send, receive, or both send and receive your packets.

Setting up the Automation Server

In order to use the Automation Server to transfer packets, the Automation Server must be set up at each site using this method. The setup procedure is the same for all sites. Perform this procedure at each site that will be using the Automation Server to transfer packets.

To Set Up the Automation Server to Transfer Packets:

1. Open the Automation Server.
2. Click **Configure**.

   The Modem Configuration dialog box will open.
3. Click the **E-mail** tab.
4. If you will be connecting through a local area network, select the Connect through Local Area Network (LAN) radio button and proceed to step 10.

or Select the Dial-up Networking radio button.

5. Select the connection you will be using from the Connection Name: drop-down list.

   Note: You must have at least one Dial-Up Networking connection established in Windows for any connections to be available.
6. Enter the User Name recognized by your ISP in the User Name: field.
7. Enter the Password required by your ISP in the Password: field.
8. Enter the password in the Verify Password: field. This password must match that entered in step 7. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.
9. The Stay idle field indicates the time, in minutes, that the Automation server will remain connected to the Internet without any messages before logging off. Enter the time in the field, or use the spinner arrows to select the idle time.

10. Enter the SMTP server in the SMTP Server field. This is the server used for outgoing messages.

    Warning! Do not change the setting in the Port: field unless specifically instructed to do so by your network administrator or ISP representative.

11. Click the **DSS E-mail** tab.

    The DSS E-mail page will open.

    Note: If you are running Data Synchronization Server and Automation Server on the same machine, the settings on this page need only be set up on one or the other. There is no harm in setting them in both. If different settings are used, the last one to be entered will be used. If you are running Data Synchronization Server on two different machines, these settings must be set up on both. If you only want to set these settings on Data Synchronization Server, you can skip to step 16.

12. Enter the incoming mail server in the POP3 Server: field. This is the server that is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

    Warning! Do not change the value in the POP3 Port: field unless instructed to do so by the network administrator or your ISP's representative.

13. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.

14. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.

15. Enter the password in the Verify Password: field. This password must match that entered in step 14. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.

16. Click **OK**.

    The Modem Configuration dialog box will close.

17. Click **Setup**.

    The Automation Server Setup dialog box will open.

18. Select the server that will be used to transfer your packets.

19. Click **Edit**.

    The Server Setup dialog box will open.

20. Click the **E-mail Specific Settings** tab**.**

    The E-mail Specific Settings page will open.

21. Choose one of the Server Processes: radio buttons. You can choose to Send Only, Receive Only, or Both. If you choose None, you will not transfer e-mail with this server.
22. If you chose any option in the preceding step other than Send Only, proceed to the next step.

or If you chose to Send Only with this server, proceed to step 26.

23. In the Retrieve Mail Every: field, enter how often the Automation Server should check for incoming mail, in minutes. Enter 0 to check continuously.
24. Select one of the Retrieve the Following Types of E-mail: radio buttons. You can select DSS Only or Both. If you select User Only, DSS e-mail will not be retrieved.
25. Click **Save**.

    The Server Setup dialog box will close.
26. Click **Close**.

    The Automation Server Setup dialog box will close.

The Automation Server setup is complete. You can close the Automation Server now, but it is not required. Repeat this procedure for each site that will be using the Automation Server to transfer packets. Select from the following to set up Data Synchronization Server at each site. There is a separate setup procedure for central, satellite, and remote installations.

Setting Up the Central Site

There are several options available for setting up the Central site to use the Automation Server to transfer packets. You can use this method for all incoming and outgoing packets, only incoming, or only outgoing. You can use different methods for each site connected to the Central site.

Automation Server Transfer as the Global Option

You can select e-mail transfer via the Automation Server as your normal method of transport. As an alternative, you can choose another method and use the Automation Server for certain sites.

To Use Automation Server Transfer as the Global Option:

1. Open Data Synchronization Server at the central site.
2. From the **Setup** menu, select **Transport Options**.

   The Transport Options page will open.
3. On the Transport Method page, select the Transfer via E-mail radio button.

4. Click the **E-mail Preferences** tab.

   Note: The settings in the top (SMTP Server) section of this page are only used if Data Synchronization Server is sending packets via e-mail directly, without using the Automation Server.

   Note: The settings in the second (POP3 Server) section of this page may not need to be set here. If you are running Automation Server on the same machine as Data Synchronization Server, they only need to be set on one or the other. You can set them in both places. If the settings are different, the last set to be entered will be used. If you do not want to establish these settings in Data Synchronization Server, you can skip to step 9.

5. Enter the incoming mail server in the POP3 Server: field. This is the server which is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the POP3 Port field unless instructed to do so by the network administrator or your ISP's representative.

6. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.

7. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.

8. Enter the password in the Verify Password: field. This password must match that entered in step 7. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.

9. Mark the Transfer E-mail using Automation Server checkbox.

10. From the drop-down list, select the Automation Server queue that will be used to transfer packets.

11. Choose an action to be taken after the files are sent, either Backup Source Files or Delete Source Files.

12. Click **OK**.

Setting Up the Satellite Site

There are several options available for setting up a satellite site to use the Automation Server to transfer packets. You can use this method for all incoming and outgoing packets, only incoming, or only outgoing. You can use different methods for each site connected to the satellite site.

Automation Server Transfer as the Global Option

You can select e-mail transfer via the Automation Server as your normal method of transport. As an alternative, you can choose another method and use the Automation Server for certain sites.

To Use Automation Server Transfer as the Global Option:

1. Open Data Synchronization Server at the satellite site.
2. From the **Setup** menu, select **Transport Options**.

   The Transport Options page will open.
3. On the Transport Method page, under Global Configuration for Remotes, select the Transfer via E-mail radio button if you will normally exchange packets with the remotes via e-mail.

or Select one of the other options for packet transfer with the remotes.

4. Under Configuration for Satellite, select the Transfer via E-mail radio button if you will normally exchange packets with the central site via e-mail.
5. Click the **E-mail Preferences** tab.

   Note: The settings in the top (SMTP Server) section of this page are only used if Data Synchronization Server is sending packets via e-mail directly, without using the Automation Server.

   Note: The settings in the second (POP3 Server) section of this page may not need to be set here. If you are running Automation Server on the same machine as Data Synchronization Server, they only need to be set on one or the other. You can set them in both places. If the settings are different, the last set to be entered will be used. If you do not want to establish these settings in Data Synchronization Server, you can skip to step 10.
6. Enter the incoming mail server in the POP3 Server: field. This is the server which is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

   Warning! Do not change the value in the POP3 Port: field unless instructed to do so by the network administrator or your ISP's representative.

7. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.
8. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.
9. Enter the password in the Verify Password: field. This password must match that entered in step 8. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.
10. If you will be exchanging packets with the central site via e-mail using the Automation Server, mark the first Transfer E-mail using Automation Server checkbox.

or Leave this checkbox unmarked and skip to step 12.

11. From the first drop-down list, select the Automation Server queue that will be used to exchange packets with the central site.
12. If you will be exchanging packets with the remotes via e-mail using the Automation Server, mark the second Transfer E-mail using Automation Server checkbox.
13. From the second drop-down list, select the Automation Server queue that will be used to exchange packets with the remotes.
14. Choose an action to be taken after the files are sent, either Backup Source Files or Delete Source Files.
15. Click **OK**.

Setting Up the Remote Site

To Use Automation Server to Transfer Your Packets:

1. Open Data Synchronization Server at the Remote site.
2. From the **Setup** menu, select **Transport Options**.

   The Transport Options page will open.
3. On the Transport Method page, select the Transfer via E-mail radio button.
4. Click the **E-mail Preferences** tab.

Note: The settings in the top (SMTP Server) section of this page are only used if Data Synchronization Server is sending packets via e-mail directly, without using the Automation Server.

Note: The settings in the second (POP3 Server) section of this page may not need to be set here. If you are running Automation Server on the same machine as Data Synchronization Server, they only need to be set on one or the other. You can set them in both places. If the settings are different, the last set to be entered will be used. If you do not want to establish these settings in Data Synchronization Server, you can skip to step 9.

5. Enter the incoming mail server in the POP3 Server: field. This is the server which is used to receive mail. (For example: POP.MYSITE.COM) This information will be available from your network administrator or ISP.

> **Warning!** Do not change the value in the POP3 Port: field unless instructed to do so by the network administrator or your ISP's representative.

6. Enter the user ID in the User ID: field. This is the ID used by the ISP to identify the mail customer.
7. Enter the password in the Password: field. This is the password used by the ISP to verify the identity of the mail customer.
8. Enter the password in the Verify Password: field. This password must match that entered in step 7. If the two passwords do not match, you will be notified when you click **OK** and be returned to the Password: field to correct the error.
9. Mark the Transfer E-mail using Automation Server checkbox.
10. From the drop-down list, select the Automation Server queue that will be used to transfer packets.
11. Choose an action to be taken after the files are sent, either Backup Source Files or Delete Source Files.
12. Click **OK**.

Setting Transport Options for Individual Remote Sites

At the central and satellite sites, you can set the method of packet transfer differently for individual remote sites. Use the following procedure when you would like to use a different method of packet transfer than that which is used globally (as configured in Transport Options).

Note: If you will be transferring packets to and from a site using e-mail without the Automation Server, you will need to establish POP3 and SMTP settings at Data Synchronization Server. See *Setting Up Internet E-mail Transfer*, earlier in this chapter, for more information. If you will be transferring a site's packets using the Automation Server, you will not need to establish SMTP settings in Data Synchronization Server. Also, if you will be transferring a site's packets using the Automation Server and both DSS and the Automation Server are on the same machine, you only need to establish POP3 settings on one or the other. If you will be using the Automation Server to transfer packets, you will need to establish SMTP settings on the Automation Server. You may need to establish POP3 settings. See *Setting Up the Automation Server*, earlier in this section, for instructions on setting up the Automation Server.

To Use a Transport Method Other Than Global for a Site:

1. Open Data Synchronization Server at the central or satellite site associated with the remote site.
2. From the **Setup** menu, select **Site Maintenance**.

   The Site Maintenance dialog box will open.
3. Highlight the site that will be using the different method.
4. Click **Edit**.
5. Click **Site Preferences**.

   The Site Preferences dialog box will open.
6. Unmark the Use Global Transport Configuration checkbox.
7. Select the radio button corresponding to the transport method you want to use with this site:
   - Manual. Select this option if you are using some method of transfer other than e-mail or FTP transfer. For example, if you transfer your packets by copying them to diskette and mailing them to the site, use this option. You would also use this option if your remote sites are notebook computers which can be connected to your network when the user visits your central site.
   - Transfer via FTP. Select this option if you will be using your FTP site to transfer packets.
   - Transfer via E-mail. Select this option if you will be sending your packets via e-mail directly between sites.
   - Transfer E-mail using the Automation Server. Select this option if you will be transferring packets via e-mail and you will be using the Automation Server to perform the actual transfer. If you select this option, you will need to select the Automation Server queue that will be used for the transfer from the drop-down list.
8. Click **OK**.

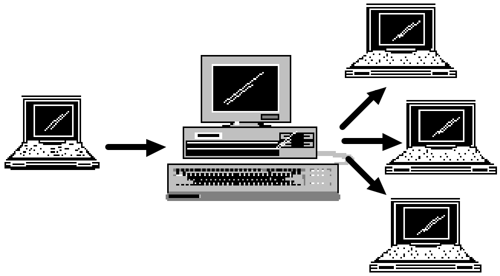
   You will be returned to the Remote Site Maintenance dialog box.
9. Click **Save**.
10. Click **Close**.
11. You will be returned to the Data Synchronization Server main screen.

SYNCHRONIZING YOUR DATA

Synchronizing Data

Once setup is complete, you are ready to begin the synchronization cycle. There are two phases to synchronization: outbound and inbound. Outbound synchronization entails creating a packet containing recent changes to the installation for distribution to other installations. Inbound synchronization entails taking packets received from other installations and synchronizing the changes into the current installation.

This procedure is all controlled from the central installation. The central installation keeps track of what changes were received from which remote installation. It then distributes those changes to the remaining remote installations. In this way, remote installations are synchronized with each other through the central installation.



Changes in a remote installation go to the central installation then out to the other remote installations

This makes it quite easy to keep track of what information goes where. Data Synchronization Server even names each packet with the Site ID of the installation to which it should go, so you can be assured that every installation has the correct information.

Before proceeding it is important that you establish a procedure for distributing and retrieving packets. If you will be using FTP transfer or TeleMagic Internet Mail, you will need to set up these features according to the instructions in the *Power Features* chapter. If you will be using another communications program to distribute packets via modem, you should know at what times the packets will be transferred and arrange your processing times accordingly. You should also know who is to be responsible for initiating processing and distributing the packets.

How Data Gets Synchronized

Before performing synchronization, you should be aware of what to expect. Following is a list of rules that Data Synchronization Server will follow when processing your sites:

- Data Synchronization Server observes field level synchronization. If a field in a record has been changed, only that field will be considered when performing synchronization. The remaining fields in the record will not be affected by the change to that field.
- If a source field (incoming data) is different from a target field (existing data), by default the target field will be overwritten with the new information. If you have marked the Validate contact record revisions at field level in Site Preferences, Data Synchronization Server will check to make sure the date and time of the incoming transaction record is more recent than the last transaction for the target field before replacing. When synchronizing to the central site you have the additional option of setting field rules. If you have set a field rule for the target field, Data Synchronization Server will replace the field according to the rule established for it. If you also have Validate contact record revisions at field level selected, Data Synchronization Server will only apply the field rule if the incoming data is more recent.
- If a packet is copied to a site from the central installation, leaving the original in the outbox, it is possible that new transactions could be appended to this packet. If the updated packet is later copied to the site again, only those transactions that were not previously processed will be synchronized. To include earlier transactions, you must set a transaction cutoff date for the site.

  Note: This is only applicable if you are transferring packets manually between sites. If you are transferring packets via FTP or e-mail, the packets will be automatically deleted after transfer.
- Transactions will not be written for changes made to data in embedded OLE fields using the Edit feature in Contact Browse. If you want to have your changes to OLE fields synchronized, edit them when not in Browse view.
- If activities were included in an outgoing packet, activity Comment fields will not be merged in the same manner as a notepad field: a newer comment field will overwrite an older one.

- If you have selected one of the merge options for memo fields in field rules (applied by default), data in memo (notepad) fields are merged and sorted by date and time, starting with the most recent. If an old note that was originally in both notepads has been changed in either notepad, it is treated as if it were two separate notes. Notes that have been deleted in one installation will not automatically be deleted in the other (unless the entire notepad has been deleted). Notes with no User ID, with no time stamp, and/or notes in which it is not clear whether the time is a.m. or p.m. will be placed at the top of the group of notes for that particular day. There is no need to be concerned about having dates in the middle of notes. Unless the date starts off a paragraph, Data Synchronization Server will ignore it. Data Synchronization Server will not integrate memo fields properly unless certain rules are observed in every database/installation: Users should stamp every memo field entry and the format of the stamp should be consistent (use the notepad stamp feature using the key combination ALT+N to ensure consistency).

- If an attempt is made to process a transaction to a record that is currently being edited, the transaction will be skipped. The Log Maintenance screen will provide information on what (if anything) did not get processed. It is a good idea to regularly review this screen to verify that all transactions were received. (If transactions have been skipped, you can either manually enter the edit or use the /TD= parameter to resend the transaction.)

- Only activities stored in the TeleMagic \COMMON directory will be included in synchronization. If users have opted to store their activities in another location, they should be made aware of the fact that these activities will not be synchronized. Consider encouraging all users to keep their activities in the default path.

- Extended Activities will only be synchronized if you have marked the Include activities assigned by users at site checkbox in the Choose Activities dialog box. A Personal Extended Activity will only be synchronized if the user who created it stores his or her activities in the TeleMagic \COMMON directory. (This is not an issue with Global Extended Activities.)

- Structural changes (e.g. filters, indexes, fields, etc.) to your database are transferred from your central site to your remote sites according to your selections in the Database Files to Transfer dialog box in Database Preferences and the Complete database file transfer checkbox in the Initialization Settings dialog box. If you perform an initialization with Complete database file transfer marked, this option will override any individual selections you have made in Database Preferences and send all structural changes. When any of these options is transferred (with the exception of filters), it will overwrite the corresponding option in the remote database. When filters are transferred, Data Synchronization Server will check the names of the filters existing in the remote site. A filter will be added at the remote site if it does not already exist. If a filter of the same name exists in the remote, it will be replaced with the filter from central.

- Data Synchronization Server may create a record with data in only one field. When this occurs, it is probable that either the packet containing the transaction in which the record was actually added was not received by the site, or a change was made to a record that was not previously being synchronized that moved it into the synchronization filter for the site. A record may not exist at a site because the site did not receive the packet that added the record, or because the record was previously not in the filter being synchronized. In either of these cases, the record will not be created at the site until a transaction is synchronized from an edit made to one of the fields in the original record. In this instance, the record will be added, but only the field for which there was a transaction (the field that has been changed) will contain data. If a field rule keeps the data in this field from getting synchronized, a blank record will be added. If this occurs, you should initialize that record at the site where it originally existed. This will write a transaction for every field in the record, thus synchronizing the entire record. (Single record initialization, and initialization of records in a filter, is performed from within TeleMagic) If this occurs frequently, consider marking the Initialize records when filter data changes checkbox in Data Synchronization Server's Database Preferences.

- When a site receives a packet via FTP or TeleMagic Internet Mail, it will be copied to the \TMSYNC\PACKETS directory. Packets placed in this directory are numbered according to the order in which they are received, and an entry is made in a table with each packet's file name and creation date. This table is used by DSS to determine which packet should be processed first. This packet is then given a TMZ extension and transferred to the inbox.

Selecting a Server

Before you can begin processing the central or a satellite site, you must first select which server you want to use.

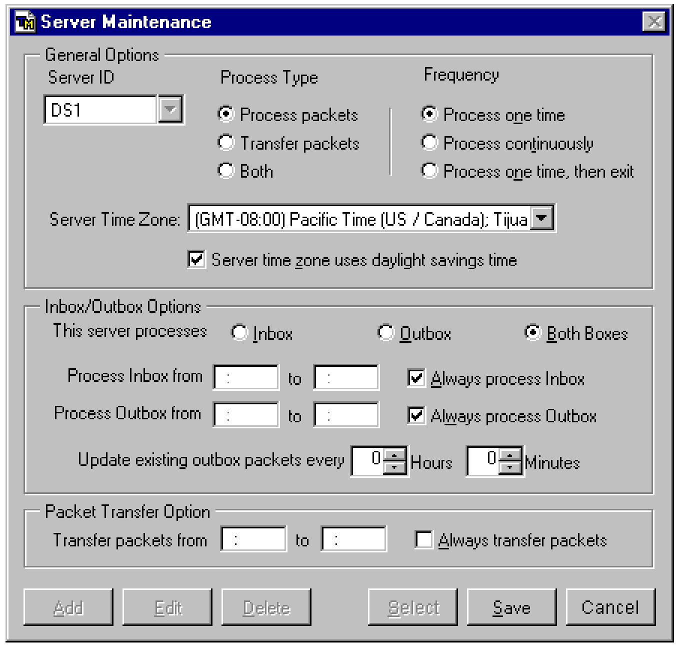
Note: You do not need to specifically select a server each time you open DSS. If you do not specify a server, the last server used on the current workstation will be selected. If you have never selected a server from the current workstation, the first server on the list will be selected. The default is workstation specific, not installation specific. If you have multiple installations of DSS installed on the same network the default server will be the last one selected on that workstation, regardless of which installation. For example, assume you have two satellite installations on the same network. You perform synchronization on your workstation from installation 'A' using server 'DS1'. When you open installation 'B' from this workstation, the default server will be 'DS1'. If it does not find it in the current installation, you will be informed that the server does not exist and the **Process** button will be dimmed.

Hint: It is possible to select a default server for use with this workstation using a command line parameter.

To Select a Server:

1. From the Data Synchronization Server **Maintenance** menu, select **Server Maintenance**.

   The Server Maintenance dialog box will open:



Server Maintenance Dialog Box

2. From the Server ID drop-down list in the Server Maintenance dialog box, select the server you want to use and click **Select**.

   Note: If the **Select** button is dimmed, this server is already selected at this workstation. If a server is currently in use at another workstation, you will receive a message informing you of this fact if you attempt to select it. A server can only be used at one workstation at a time. If you need to use the same server on more than one workstation, create a new server with a unique ID but use the same settings.

   The server will be selected for this work session.

Processing the Central Site

Note: It is highly recommended that you read this entire section before beginning.

To Process the Central Site:

1. Make sure that the most current packets from all remote sites have been placed in the central installation's inbox. (The inbox is located by default in the directory \TMSYNC\INBOX off the TeleMagic path.)
2. Open Data Synchronization Server.
3. If you have not already done so, select a server.
4. From the Data Synchronization Server **File** menu, select **Process**.

   Note: Packets will not be created for sites if you have not established the user list.

   When setting up your central installation, you had the option to set the server for continuous or for one time processing. You also had options to control what is synchronized by this server at what times. Depending upon your options, one of several things could happen when you click **Process**.

   If the server is set to process one time then exit, Data Synchronization Server will see if your server is set to process the inbox. If it is, it will then see if it is restricted from processing at the current time. If it is not, all packets in the inbox will be processed and changes will be synchronized to the central installation of TeleMagic. It will then follow the same procedure in creating and/or updating packets for the outbox. If neither the inbox nor the outbox may be processed at the current time, you will receive a message informing you that there is nothing to process.

   If this server is set for continuous processing, when you initiate processing Data Synchronization Server will verify that the server is set to process the inbox at the current time. If so, it will check for packets in the inbox and process and delete the group of packets existing at that time. (If a packet is added to the inbox while this is occurring, it will be processed with the next group of packets.) If the server is not set to process the outbox, it will then check the inbox again for packets and repeat the process continuously during the time specified for processing the inbox in Server Maintenance. If the server is set to process the outbox, it will verify that it may process the outbox at the current time. If not, it will return to the inbox; if so, it will check each existing packet in the outbox in turn and compare the time it was created to the current time. If this exceeds the time specified in Server Maintenance in the Update existing outbox packets every field, the outgoing packet will be updated with new transactions (without overwriting existing transactions). If there is no outgoing packet for a site, one will be created. When Data Synchronization Server has finished processing the outbox, it will return to the inbox, if applicable.

As the server processes the transaction records into packets and/or synchronizes any existing packets in its inbox into the installation, a message box will appear apprising you of its status:

Sample Process Status Message Box

When it is completed, Data Synchronization Server will either move onto the next phase of processing, or exit process mode, depending on whether it is set to process continuously or one time.

When processing is completed, if the outbox was processed, packets will be created for distribution to the remote installations and placed in the central installation's outbox. Each packet will be named TMSRV (for standard synchronization) or TMINI (for an initialization) followed by the Site ID to which it should go and the file extension .TMZ. (For example, if the Site ID is 500, the packet will be named TMSRV500.TMZ for a standard synchronization, or TMINI500.TMZ for an initialization.)

Hint: Use the Log Maintenance feature to view full details on exactly what was processed.

Packet Transfer at the Server

Processing using packet transfer at the central or a satellite site is simply a matter of processing the server. Once it is processing, Data Synchronization Server will refer to your Transport Options settings and automatically transfer packets via FTP or e-mail at the appropriate times.

WARNING! When a packet is posted to the FTP site, the other installation of TeleMagic knows to pick it up based on the Site ID. If you are posting an initialization packet for a new site, the Site ID must match the site's System ID. If it does not, the site will not know that packet belongs to it. If you are assigning a Site ID that is different than the site's System ID, you will need to transfer the first initialization packet manually. (This is not an issue if you change the Site ID of an existing site. The initialization packet will retain a reference to the previous Site ID.)

DSS will begin processing according to your setup selections. Any packets in the server's outbox will be transferred, then any packets from the FTP site will be retrieved and placed in the server's inbox.

If you have selected to process one time then exit, the program will close when this process is completed. If you have selected to continuously process, the program will go idle when it is completed. It will remain idle until the processing pause time elapses, then it will repeat the process.

Processing Remote Sites

Processing a remote site is a relatively straightforward procedure. Because the remote sites only need to deal with a single synchronization cycle—retrieving an incoming packet from the central or satellite installation and providing an outgoing packet to the central or satellite installation—you were not required to set up a server for your remote site. Rather, you can simply open Data Synchronization Server and process whenever synchronization needs to be performed.

Hint: This procedure can be further automated by the use of scripts.

If you will not be using FTP transfer or TeleMagic Internet Mail to transfer packets, you will need to do so manually or use another communications program.

To Transfer a Packet Manually:

1. At your central installation, locate the packet for the remote installation in the central site's outbox. The packet belonging to the remote installation will be named TMSRV or TMINI followed by the Site ID and the file extension .TMZ.

   Note: By default, the central installation's outbox is located in the directory \TMSYNC\OUTBOX off the TeleMagic path.

   Example: If the central site's outbox is in the default path, the main TeleMagic directory is in the path C:\TM, and the remote installation's ID is 500, you need to locate the file TMSRV500.TMZ or TMINI500.TMZ in the path C:\TM\TMSYNC\OUTBOX.

2. Move the file to the inbox of the remote installation. Packets can be moved in the same manner as any other file. You can use whatever file transfer method is usually employed in your company. Make sure that you only transfer that site's packet to the inbox. Data Synchronization Server will not process if there are multiple packets for different sites in the inbox.

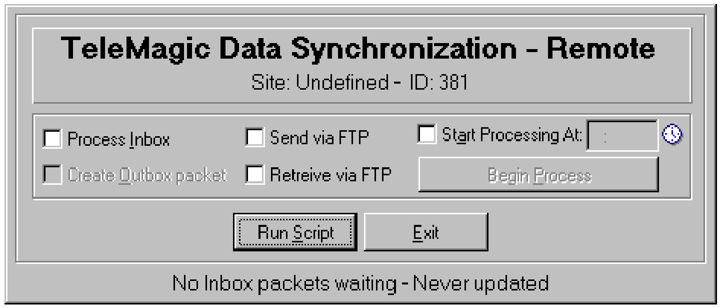
   WARNING! Be very careful not to transfer a packet belonging to another site, especially if it is an initialization packet.

   Note: By default the remote installation's inbox is located in the directory \TMSYNC\INBOX off the TeleMagic path. Because it is possible to specify a different path, you may want to verify that this has not been modified before proceeding.

To Process the Remote Sites:

1. On the computer containing the remote installation of TeleMagic, open Data Synchronization Server following the instructions in the section *Opening Data Synchronization Server at the Remote Site* in the *Basic Setup* chapter.

   The TeleMagic Data Synchronization Remote dialog box will open:



Sample TeleMagic Data Synchronization Remote Dialog Box
The above example shows a site that is configured for FTP transfer

2. If you are using FTP to transfer packets, mark the Send via FTP and Retrieve via FTP checkboxes.

or If you are using TeleMagic Internet Mail to transfer packets, mark the Send via E-mail and Retrieve via E-mail checkboxes.

Note: The FTP options will only be visible on this screen if the site's Transport Options have been configured for FTP transfer. Similarly, the E-mail options will only be visible if the site's Transport Options have been configured for E-mail transfer.

3. If you want to process the inbox, mark the Process Inbox checkbox.

Note: If you are using TeleMagic Internet Mail for packet transfer, the inbox will not contain a packet. Instead, the packets are stored in a temporary holding area until the inbox is processed. When processed Data Synchronization will determine which one to process, copy it to the inbox, and process.

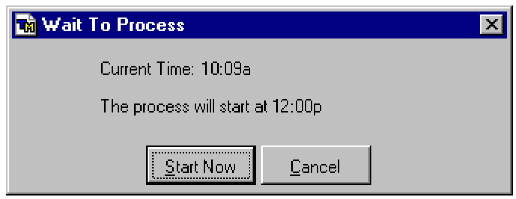
4. If you want to create packets from your transaction records and have them placed in your outbox, mark the Create Outbox Packet checkbox.

Note: This option will be unavailable until you have processed the inbox at least once. Once you have processed the first inbox packet, you must repeat these steps and process the outbox. You will not receive another inbox packet from the central site until it has received and processed your first response packet.

5. If you do not want to begin processing until a specified time, enter that time in the Start Processing At: field. You must use the 12 hour format followed by ***a*** for a.m., or ***p*** for p.m. (If you enter a time in 24 hour format, it will be automatically converted to 12 hour format.)

6. When satisfied with your selections, click **Begin Process**.

Note: If you have selected Start Processing At time, the Wait To Process message will appear:

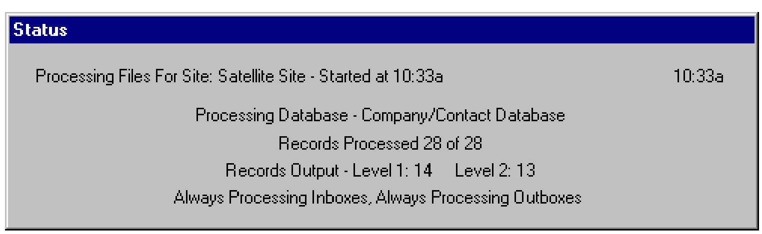


This message will stay on the screen until the specified processing time. If you do not wish to wait until the specified time, click **Start Now** to begin processing immediately, or click **Cancel** to cancel processing and return to the main TeleMagic Data Synchronization - Remote dialog box.

Note: If there is currently a packet in the outbox and you attempt to process the outbox again, you will receive a message offering you the option of appending new transactions to the current packet. Selecting **Yes** will cause transactions to be appended without affecting the data already in the packet. Selecting **No** will cause the existing file to get overwritten. Only select **No** if you are certain that the packet has been processed at the central site.

Processing will commence immediately, or at the time specified in the Start Processing At: field.

A message box will appear indicating the status of the procedure:



Sample Process Status Message Box

When finished processing, you will be returned to the Data Synchronization Site dialog box. If you chose to process the inbox, the changes from the central installation will be incorporated into your remote installation. If you chose to process the outbox, a packet containing the transaction records of all changes to the remote installation since the last time you processed will be placed in the installation's outbox. If you are using packet transfer, this packet will be moved to the central or satellite installation's inbox for processing.

Hint: Use the Log Maintenance feature to view full details of exactly what was processed.

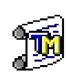
Processing a Remote Site Using a Script

If you have created a script for use when processing a remote site, you can bypass the TeleMagic Data Synchronization Site dialog box using a command line parameter. Also, Data Synchronization Server provides an icon that has been set up to launch the default script that has been provided to process the inbox and outbox.

To Run the Default Script:

Note: The default script has been provided initially at the central location and must be sent to the sites during initialization. (Sending scripts to the remote installations is done in initialization.) If you need to process the site, but have not received the default script and have not created any scripts at the site, open Data Synchronization and use the **Process** selection from the **File** menu to process the site.

1. Locate and double-click the Data Synchronization script icon:



A logon dialog box will appear.

2. Enter your TeleMagic User ID and password.

Hint: You can attach command line parameters to the default script icon to perform automatic logon.

The script will begin processing the inbox and outbox.

To Run a Script from the Data Synchronization Server Icon:

1. On the computer containing the remote installation of TeleMagic, highlight the Data Synchronization Server icon:

2. Right-click the icon on your desktop, select **Properties** from the menu, and select the **Shortcut** tab.

The path and file name for Data Synchronization Server will appear in the Target field.

3. After the path, type a space and ***/Script=*** then type the script name.

Note: If the script name contains multiple words, do not us spaces between the words. Instead, type an underscore character "_" in place of the space.

Example: **C:\TM\DSREMOTE.EXE *****/Script=Remote_Script_1*****.**

Hint: You can attach additional command line parameters to the icon to perform automatic logon.

4. Click **OK**.

5. Double-click the Data Synchronization Server icon to launch the script.

A Data Synchronization Server logon dialog box will appear.

6. Enter your TeleMagic User ID and password and click **OK**.

The script will begin at the time specified under Run this step at for the first step.

Every time you select this icon this script will be run until you change your Properties.

Hint: If you later need to open Data Synchronization Server at the remote site without launching the script, remove the /Script= command line parameter.

To Run a Script from a Run Dialog Box:

1. Click **Start** on the taskbar and select **Run…** from the menu.

The Run dialog box will open.

2. In the Open: field, enter the path to the file DSREMOTE.EXE in the TeleMagic programs directory.

Example: If the main TeleMagic directory is in the path C:\TM you would enter ***C:\TM\PROGRAMS\DSREMOTE.EXE***.

3. At the end of this path, type a space and enter ***/Script=*** then type the script name.

Note: If the script name contains multiple words, do not us spaces between the words. Instead, type an underscore character "_" in place of the space.

Hint: You can include additional command line parameters to perform automatic logon.

4. Click **OK**.

5. A Data Synchronization Server logon dialog box will appear.

6. Enter your TeleMagic User ID and password and click **OK**.

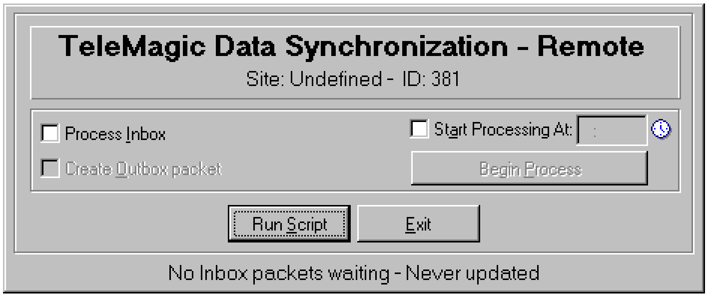
The script will begin at the time specified under Run this step at for the first step.

The following procedure allows you to run a script from within Data Synchronization Server. This allows you to run the script without exiting and re-entering DSS.

To Run a Script from within Data Synchronization Server:

1. Open Data Synchronization Server at the remote site.

The main screen will open:



2. Click **Run Script**.

   The Select Script dialog box will open:

Sample Select Script Dialog Box

3. Highlight the script you want to run and click **Run**.

or Click **Cancel** to return to the main screen without launching the script.

If you select to run, the script will launch and begin processing the site.

Processing Satellite Sites

To Process a Satellite Site:

1. Make sure that the most current packets from the central and all remote sites have been placed in the satellite installation's inbox. (The inbox is located by default in the directory \TMSYNC\INBOX off the TeleMagic path.)
2. Open Data Synchronization Server.
3. If you have not already done so, select a server.
4. From the Data Synchronization Server **File** menu, select **Process** to process only inbox and/or outbox packets for the remote sites which are attached to this satellite server.

or From the Data Synchronization Server **File** menu, select **Process Central** to process only inbox and/or outbox packets for the central site.

Note: If you do not want to process the central and remotes separately, you can use the Satellite settings to include the central site when processing the remotes. For more information, see the section *Setting Up Satellite Synchronization with the Central Site* in the *Basic Setup* chapter.

MAINTENANCE

Maintaining Your Central Location

Maintaining your central location consists of two parts: setup maintenance and server maintenance. Maintaining your settings mostly entails adjusting your setup options to reflect your current needs. Server maintenance consists of monitoring and troubleshooting the synchronization process and optimizing the server through rebuild. Reports have been provided to facilitate your maintenance needs.

Setup Maintenance

If you have carefully followed the setup instructions detailed earlier in this guide, your setup should require very little maintenance. Most of the required maintenance will entail adjusting your initial settings to reflect your current needs. For the most part, this is simply a matter of following the same setup instructions used when first making these settings and adjusting the settings as necessary. There are a few points of which you should be aware when editing your settings that are detailed in the following sections.

Server Setup Maintenance

The number and types of servers you need depends largely on your processing requirements. If you do a lot of processing you may find that you need more than one server performing different functions. If a single server can easily handle your processing needs, you may decide to only devote one workstation to this task; or even to only devote a workstation part time. While you were probably able to determine your processing requirements with reasonable accuracy during initial setup, you may find that you need to adjust these settings when you actually begin processing.

To Edit a Server:

1. From the Data Synchronization Server **Maintenance** menu, select **Server Maintenance**.

   The Server Maintenance dialog box will open.

2. Highlight a server in the Server ID list and click **Edit**.
3. Adjust the settings as necessary.
4. Click **Save** to save your edits.
5. Click **Close** to exit the Server Maintenance dialog box.

To Delete a Server:

1. From the Data Synchronization Server **Maintenance** menu, select **Server Maintenance**.

   The Server Maintenance dialog box will open.

2. Highlight the server in the Server ID list and click **Delete**.

   A message will appear asking you to confirm your decision to delete.

   Note: You cannot delete your only server.

3. Click **Yes** to delete the server.

or Click **No** to cancel.

4. Click **Close** to close the Server Maintenance dialog box.

Server Options

Server Options control key functions such as how Data Synchronization Server deals with outdated packets and setting the path for the inbox and outbox at the central location. Once these settings are established, you will probably not need to adjust them. If you do change any of these settings, it is very important that you notify the users responsible for performing synchronization at your remote sites. Caution is particularly required if you change the time limits for providing or receiving packets (the Inbox and Outbox Options), as packets could be deleted or rejected without getting processed if users are unaware of the updated time limits.

Site Maintenance

As you add or remove installations of TeleMagic as remote sites, you should update your list of sites to reflect these changes.

To Edit the Site List:

1. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open.

2. Highlight the site whose settings you want to change and click **Edit**.

3. Use the following guidelines when editing the Site ID:
   - You cannot edit the Site ID of the Central Site, but you can edit the name of the Central Site.
   - If you want to change the Site ID of a remote site which has been saved, at least one synchronization must be performed with the current Site ID and a return packet must be received before the Site ID can be changed.
   - If you do change a Site ID, you must perform an initialization with the next synchronization. You will not be able to save a changed Site ID if you are not set to perform an initialization.

   Note: As a general rule, you should not have to change your Site ID. Avoid changing your Site ID unless absolutely necessary.
4. Click **Save** when satisfied with your changes.
5. Click **Close** to exit.

To Delete a Site:

1. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open.
2. Highlight the site from the list and click **Delete**.

   You will be asked to confirm your decision to delete.
3. Click **Yes** to delete the site.

or Click **No** to retain the site.

Note: You cannot delete your central location.

4. When finished, click **Close** to exit the Remote Site Maintenance dialog box.

   If you have deleted any sites, those site licenses will be available for other installations of TeleMagic.

Site Preference Maintenance

Editing most of the settings in Site Preferences is simply a matter of accessing the Site Preferences dialog box off the Remote Site Maintenance dialog box and adjusting the settings following the guidelines used when initially creating the settings.

Caution is warranted when editing the activity and e-mail options. If users have become accustomed to assigning activities and writing e-mail to users at remote sites through synchronization, changing these settings could result in information not getting to the intended recipient. If you do decide to restrict this functionality, make sure you notify users at all sites.

One area of Site Preferences that you should maintain is the **Attach File Set** option. This option allows you to send any one of your existing file sets with your packet. The selected file set will continue to be included in the outgoing packet with every synchronization until another file set (or no file set) is selected. When a file set has been successfully sent to a site, you should edit this selection.

Initialization Maintenance

If you have selected to initialize one time only, you should not have to worry about maintenance for your initialization settings. If, for any reason, you need to perform an initialization again, simply adjust your settings and perform another one time initialization. If you have set your Site Preferences for continuous initialization, you should pay careful attention to the settings that you are using and make sure that you intend to use each of these options on a continuous basis.

Some hints relating to initialization that you may find useful include the following:

- If you change your default security in Options to no security or the Remote 'Everyone' Group, sites that are set up to use either of the Initialization Security options may encounter problems. (If these options are selected with no default security, the packet will fail; if they are selected with the Everyone group selected and the site does not have an Everyone group, users will lose their security.) To avoid these possibilities, access **Initialization Security Settings**, unmark both checkboxes, return to the main Initialization Settings screen and apply the settings to all sites.

- If you are performing continuous initialization, be aware that if you have the Transfer Scripts option selected, all of your scripts will be sent with each initialization. While this will not create any problems, it will add to your packet size unnecessarily. If you are not creating new scripts, consider unmarking this option.

- If you send an initialization packet to a site that for any reason does not get used, you can create a new one with the same settings using the **Resend packet** button. (**Resend packet** replaces the **Site preferences** button on the Remote Site Maintenance dialog box when you attempt to edit a site that is waiting for a return packet after an initialization.)

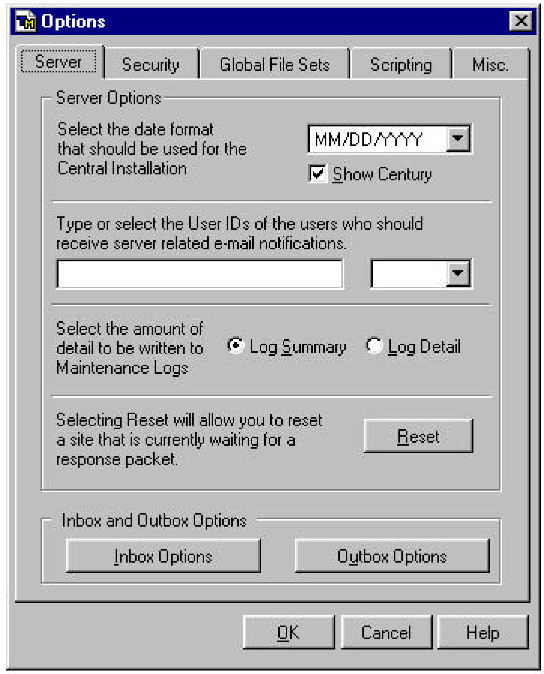
- If you send an initialization packet that adds the user SUP, then deselect this option with the next initialization, you will be given the option of deleting the SUP user. Selecting **Yes** will remove this user from the site's central user list. This can be useful if you want to add a supervisor user to give someone at the remote site only temporary access to the supervisor options in TeleMagic.

- It is possible to duplicate the effects of selecting Complete database file transfer (No contact records) and Transfer all contact and activity records without sending an initialization packet. To do this, on the Site Preferences page of the Site Preferences screen, click **Edit Activity Filter Criteria.** Select the Select all activities, ignore transactions radio button; access Database Preferences for the site (or the Global Database Preference settings if the site is linked to the global settings), select the Select all records, ignore transactions radio button. Click the **Select database files to transfer** button and mark all of the checkboxes. If you only want to use these settings with one packet, you will have to access them again and deselect them.
- Users at the remote site can alter the time zone settings. If a user accesses the time zone options at the site and changes the settings, that change will be reflected on the initialization screen. You can use this display to determine what time zone currently is in use at the site and alter it from the central site if necessary.
- Once an initialization packet has been created, you will only be able to edit your site (including Site Preferences) after the packet has been processed at the remote site and a return packet has been received. If you discover a problem with your initialization settings after the packet has been created, using the Reset feature accessed on the Server Options screen will allow you to edit your settings and create a new packet.

To Use the Reset Feature:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

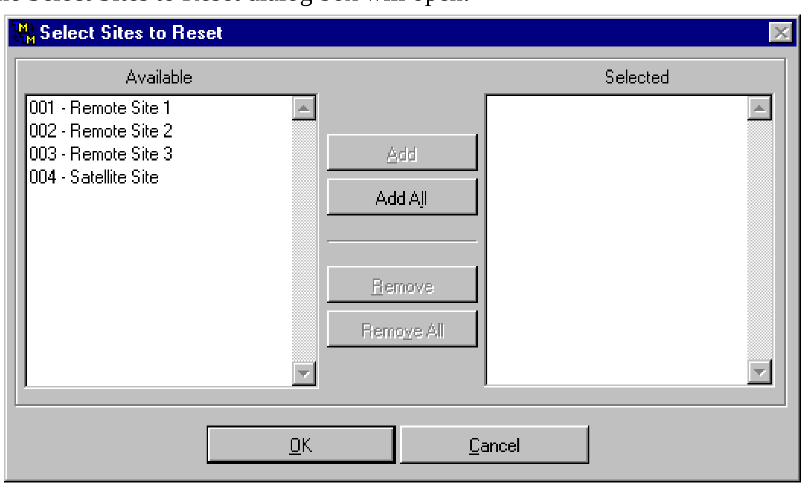
   The Options dialog box will open:



Server Options Page

2. Click **Reset**.

   The Select Sites to Reset dialog box will open:



Sample Select Sites to Reset Dialog Box

The Available list will display all sites that are waiting for a response packet after an initialization packet has been processed.

3. Select the sites you want to reset from the Available list and click **Add**, or click **Add All** to select all sites.

   To remove a site from the list, click **Remove**.

4. Click **OK** and all sites in the Selected list will be reset.

   When a site is reset it will be as if the initialization packet was never created. You can then access Site Preferences for the site and adjust your settings as necessary.

WARNING! This option should only be used if the remote sites have not received the initialization packet or if the packet could not be processed.

User List Maintenance

The user list for each site that is kept at the central installation can be used to maintain personnel changes for the entire workgroup from one central location. The user list for each site should be updated with any personnel changes occurring at the site.

Example: Remote Site 1 is a small satellite office staffed by David Most, Lucy Johnson, and Gordon Watson. Shelley Quinn is the regional manager covering this office and spends one week a month there. The user list in Data Synchronization Server for this site would look like this:

DRM	David Most
GMW	Gordon Watson
LAJ	Lucy Johnson
SAQ	Shelley Quinn

(Shelley Quinn should also be added to the user lists for the other sites she visits.)

Down the road, Shelley is promoted and Dan Prey takes over her job as regional manager. Dan needs to be added to TeleMagic at this location and, as she will no longer be visiting this office, Shelley needs to be removed as a user in this installation. The Director of Human Resources for this company, Keith Pagioro, works from the central location. Keith can personally update the users who exist in TeleMagic at this satellite office without having to travel to the remote site. He simply accesses the user list in Data Synchronization Server for this site and adjusts it accordingly:

DMP	Dan Prey
DRM	David Most
GMW	Gordon Watson
LAJ	Lucy Johnson

The next time a synchronization is performed from the central to the remote, Data Synchronization Server can check the users at the remote site against those in the site's user list and make the necessary additions and deletions in TeleMagic. (You must have Delete users at this site who don't exist on Data Synchronization's user list for this site for users to be automatically deleted through synchronization.)

When maintaining your user list, there are two Site Preference settings that must be considered: Update central user list and Delete users at this site who don't exist on Data Synchronization's user list for this site. Your selections for these settings will affect how changes made to a site's user list will affect the users at the site, and vice versa. Update central user list allows users at the remote site to make changes to the list of users at the site and have those changes synchronized to the site's central user list. Delete users at this site who don't exist on Data Synchronization's user list for this site allows you to automatically remove users from the remote site by removing them from the site's central user list. This allows you to retain total control over who may access the remote installation of TeleMagic at the central site.

The results of these two settings will vary according to how they are used in conjunction with each other:

- If you have both Delete users at this site who don't exist on Data Synchronization's user list for this site and Update central user list marked, the order of synchronization from the remote site to the central site becomes important. If a user is added at the site and synchronization is performed from the central installation to the remote site before the site has an opportunity to create an outbox packet with the new user, Data Synchronization Server will see that there is a user existing at the site who does not exist on the site's user list and delete it. When users are created at the remote site, an outbox packet should be generated right away to make sure the user is added to the site's user list.
- If you have Delete users at this site who don't exist on Data Synchronization's user list for this site marked and do not have Update central user list marked, users who are deleted from the site's user list will be deleted from the remote installation of TeleMagic, allowing you to retain total control of users at the central installation.
- If the site does not have Delete users at this site who don't exist on Data Synchronization's user list for this site marked, but does have Update central user list marked, users deleted from the site's user list will be re-added on synchronization from the remote installation.
- If the site does not have either Delete users at this site who don't exist on Data Synchronization's user list for this site or Update central user list marked, users deleted from the site's user list will be retained at the site. They will not be included in the synchronization process, meaning that they will not receive synchronized e-mail and activities at the site. (If they are on the user lists at other sites, they will be able to receive activities and e-mail at those sites.)

Consider periodically checking the remote site's central user list to ensure that all of the users on the list should have access to TeleMagic.

Note: Maintaining the users at the central installation is handled from within TeleMagic. You will not be able to edit the central site's user list in Data Synchronization Server.

To Maintain a User List:

1. From the Data Synchronization Server **Setup** menu, select **User Maintenance**.

   The Remote User Maintenance dialog box will open displaying all of the users in your central location.

2. From the Site: drop-down list, select the first remote site you want to edit.

   Note: Users at the local site are added through TeleMagic.

3. To add a user to the list, click **Add**.

4. Enter the user's ID as it is entered in TeleMagic in the User ID: field.

5. Enter the user's name in the User Name: field.

   Note: If you entered a User ID in step 4 that also exists at the central location, that user's name from the central location will automatically be entered in this field and the field will dim. If this is not the user you intended to use, you must assign that user a unique User ID. No two users can have the same ID, even if they exist at different sites. If you entered a User ID that has previously been used at another remote site but enter a different name, the user's name at the other site will be updated to reflect this change.

6. Click **Save**.

7. If you want to change an existing user, highlight the user you want to change on the list and click **Edit**.

8. Make the necessary changes in the User ID: and User Name: fields.

   Note: If you change the User ID of an existing user, Data Synchronization Server will view this as a new user. Default preferences will be applied, if they have been established. If defaults are not established you will be given the opportunity to adjust preferences for the user.

9. When you are satisfied with your edits, click **Save**.

To Delete a User from a User List:

1. From the Data Synchronization Server **Setup** menu, select **User Maintenance**.

   The Remote User Maintenance dialog box will open displaying all of the users in your central location.

2. Select the remote site containing the user you want to delete from the Site: list.

The list of users at that site will appear.

3. Highlight the user you want to remove and click **Delete**.

   You will be asked to confirm your decision to delete.

4. Click **Yes** to delete the user from the user list.

or Click **No** to retain the user.

Note: Actually deleting the users at the site is subject to the Delete users at this site who don't exist on Data Synchronization's user list for this site setting in Site Preferences.

5. When you have finished making changes to the users on this list, click **OK**.

   You will be returned to the TeleMagic Data Synchronization Server Setup screen.

Database Preferences

When maintaining your database preferences, it is important to keep in mind which sites are set to read the global database preferences, and which are unlinked. When you create unique settings for sites, the site is no longer linked to the global settings.

If you want to edit the preferences that you want to use with all sites, whether linked or not, you will need to consider how best to copy this edit to the unlinked sites. You can use the Apply these settings to all sites feature in Global Preferences to quickly copy changes, but this option will apply *all* of the settings to *all* sites, not just the most recent changes. When you use this option, it does not re-link the site to the global preferences, it merely writes the current settings to the site. If you want to copy later changes to those sites, you will have to mark this checkbox again.

You can re-attach a site to the global settings at any time if it becomes necessary.

To Re-link a Site to the Global Preferences:

1. From the Data Synchronization Server **Setup** menu, select **Site Specific Setup…**.

   The Site Specific Setup options will open.

2. Click **Databases to Synchronize**.

   A message will appear informing you that sites which do not read the Global Database Preferences are preceded by an asterisk on the list of sites.

3. Click **OK** to acknowledge the message.

   A Choose Site dialog box will open with a list of your sites. An asterisk on this list will precede sites that have been unlinked from the global database preferences.

4. Highlight the site you want to re-link and click **Select**.

The Databases To Be Synchronized dialog box will open with the name of the site you selected in the title bar.

5. At the Databases To Be Synchronized dialog box, click **Remove All**.
6. Click **OK**.

   A message will appear asking if you want to reset the site to the Global Preferences.

7. Click **Yes**.

   Note: Selecting **No** will cause the site to remain unlinked. However, because no databases are selected, no database-related data will be synchronized. The site will only receive user-related information, such as activities and e-mail, until you select a database for synchronization.

   You will be returned to the Choose Site dialog box.

8. If you want to change another site, highlight it and repeat steps 4 through 7.
9. When you are finished identifying sites to be re-linked, click **Close**.

   The site(s) will now read the Global Preferences.

Global Options

Global Options are settings that are referenced throughout Data Synchronization Server. Before editing any of these settings, you should carefully consider all of the places in which these settings may be currently referenced and determine how your changes will affect these areas.

Security

Exercise caution when editing your security settings. You are given the option in the security section to select a default security group for use in initialization and when adding users through synchronization. Chances are you will have created site settings based on the security that was selected at the time the settings were made. Changing the default security could create conflicts with other settings.

Be especially careful when using no default security. This option is provided to allow you to add users during synchronization with no security assigned to them. If you have multiple security groups with very specific settings, you will probably want to select this option as this will force the supervisor at the remote site to assign security to each new user individually. However, if you try to perform an initialization that affects security with this option selected, your initialization packet will fail. Before selecting this option for use when adding users, make sure no sites are set to perform an initialization that will affect security.

The same applies to selecting the remote Everyone group unless you are certain that all of your sites have been set up with a group called Everyone. If a site does not have an Everyone group and receives an initialization packet that assigns all users to the Everyone group, they will lose their security. Should this happen, you should select a security group from the central installation and resend the initialization packet.

As long as you are certain that every site has a security group named Everyone, and that you are aware of any sites that are set to perform an initialization that will affect security, you can change these security defaults with confidence.

Preferences

Preferences are applied to users being added during synchronization and can be assigned to all users at a site during initialization. Editing your preferences is a matter of selecting a different user whose preferences you want to use. The main maintenance for this is performed while setting the preferences within TeleMagic.

File Sets

Many file sets will consist of files that need to be sent to the sites one time only. Occasionally you will have a file set that consists of files that need to be continuously or periodically synchronized as the files are updated. This is why Data Synchronization Server stores the file sets so you do not have to duplicate your work. However, when the set was created for a single synchronization, or files need to be added or removed from the set, you can edit your list of sets or the list of files in a set.

To Edit File Sets:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

2. Click the **Global File Sets** tab.

   The Global File Sets page will open with a list of all of the file sets you have created:

Sample Global File Set Page

3. Highlight the set of files you want to edit and click **Change**.

   The Edit File Set dialog box will open.

4. If you want to edit any of the file selections, highlight it in the list and click **Change**.

   The **Save Set** button will toggle to **Save File**.

5. Make any necessary changes on the right side of the dialog box and click **Save File**.

6. If you want to remove a file from this set, highlight it in the list and click **Delete**.

   You will be asked to confirm your decision to delete.

7. Click **Yes** to delete the file from the set.

8. When satisfied with the set, click **Save Set**.

   You will be returned to the Options dialog box.

To Delete a File Set:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

2. Click the **Global File Sets** tab.

   The Global File Sets page will open with a list of all of the file sets you have created.

3. Highlight the file set you want to delete from the list and click **Delete Set**.

   You will be asked to confirm your decision to delete.

4. Click **Yes** and the set will be deleted.

or Click **No** to retain the set.

5. Click **Close** to close the File Set Setup dialog box.

Scripts

Scripts are created in the central installation to send to the remote sites during initialization. Once a synchronization has been performed with a list of scripts and the desired sites have received the scripts, you may want to delete them. It is also possible to edit a script to perform a slightly different function and send it again.

To Change a Global Script:

1. From the Data Synchronization Server **Setup** menu, select **Options...**.

   The Options dialog box will open.

2. Click the **Scripting** tab.

   The Scripting page will open with your list of scripts.

3. Highlight a script from the list and click **Change**.

   The Central Script Setup dialog box will open.

4. To change the order in which any step in the script is executed, click and hold the mover box  next to the step description while dragging the step to the appropriate position. Repeat this until all steps are in the desired order.

5. To change the details of any step, highlight it on the list and click **Change**.

   The step details will become available and the **Save Script** button will toggle to a **Save** button.

6. Make any necessary changes to the step and click **Save**.

7. If you want to remove any step from the script, highlight it and click **Delete**.

   A message will appear asking you to confirm your decision to delete.

8. Click **Yes** and the step will be deleted.

or Click **No** to retain the step.

9. When you are satisfied with your script, click **Save Script**.

   You will return to the Scripting page.

To Delete a Global Script:

1. From the Data Synchronization Server **Setup** menu, select **Options…**.

   The Options dialog box will open.

2. Click the **Scripting** tab.

   The Scripting page will open with your list of scripts.

3. Highlight the script you want to delete from the list and click **Delete Script**.

   You will be asked to confirm your decision to delete the script.

4. Click **Yes** and the script will be deleted.

or Click **No** and the script will be retained.

Adding Remote Sites

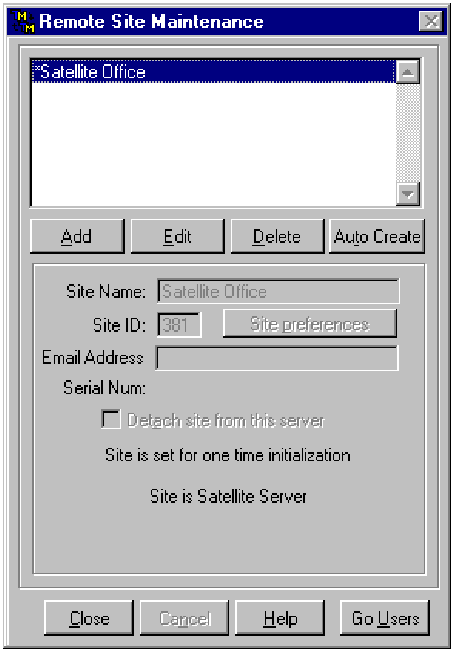
When adding remotes to a satellite office, you have the option of adding a new remote, or attaching a remote that was previously synchronized with a different server.

Adding New Remote Sites

1. Open Data Synchronization Server at the satellite site.

2. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open:



Remote Site Maintenance Dialog Box

3. Click **Add**.

   Note: The Detach site from this server checkbox toggles to Site is being reattached to this server when you are adding a site. This checkbox should only be used if you are attaching an existing site that has been detached from the central site or another satellite office. You should not mark this if you are adding a site that has not already been synchronized.

4. Enter a unique name for your remote location in the Site Name: field.

   Note: The name 'Central Location' is reserved for the central site. You will not be able to assign this name to any other site.

5. Enter a three character ID for the remote installation in the Site ID: field. If there are records already existing at the remote site, it is *strongly* recommended that you use the System ID for the installation (found in System preferences in TeleMagic) as the Site ID.

   Note: You can also set up site preferences and initialization settings if you do not want to use the defaults. Click **Site preferences** and press F1 at the Site Preferences screen for details.

6. Click **Save** to save the remote site.

The site will be added, but will be placed on hold until you have received verification from the central that the Site ID is not already in use. As soon as the central returns the verification, the site will be synchronized.

Obtaining Site Verification

After a site is added, it will be placed on hold until you receive site verification from the central. The next packet that is sent to central after adding a new remote site will contain information about the site. The central will check to make sure that the new site does not create a conflict with any existing sites. If there is no conflict, the central will send back verification to the satellite server and the remote site will be taken off hold. If there is a conflict, the central will send back details on the specific information that is in question and offer suggestions on the changes that need to be made to take the site off hold. The satellite server will continue to send the request for verification in every packet to the central until the conflict is resolved.

The central site will verify the following information for the new site:

The Site ID for every remote site must be unique.

Every record in TeleMagic has a unique Contact ID that allows TeleMagic to identify and locate the record. Contact IDs are based in part on the Site ID. If two sites have the same ID, you will have duplicate Contact IDs and TeleMagic will not be able to determine which record is which. Data Synchronization Server keeps track of all Site IDs at the central site to avoid conflict. When a new site is added at a satellite, the Site ID will be sent to the central server. If the Site ID is not in use at another installation, the central site will send back an approval. If the Site ID is a duplicate, the central site will send back a denial and you will have to change the ID for the site. If the central sends back a denial, it will determine a Site ID that is not in use and offer it as a suggestion. Be aware that this suggested ID is one that is available at that time. If you choose to use this Site ID, it will still need to be verified to make sure that it remained valid and no other server has claimed it in the interim.

Note: Site ID verification is also required if you change the ID of an existing site. When you edit a Site ID at a satellite office, the remote site will be placed on hold until the central site has sent back verification for the new ID.

WARNING! The Site ID in synchronized sites is equivalent to the System ID in non-synchronized installations. Data Synchronization Server is able to keep track of all Site IDs for synchronized sites and make sure they remain unique. An installation that is not being synchronized, however, could have a System ID that matches a Site ID already in use. If there are records in these installations, you will have duplicate Contact IDs. If you are adding a site for an installation of TeleMagic that already contains records, it is *highly* recommended that you use the System ID as the Site ID. If you enter the System ID and the central site reports that that Site ID is already in use, this will alert you that there is a problem with the existing records. In this case, you should export all of the records out of the new site, import them into the satellite office, and then delete them at the remote site. This will create new Contact IDs based on the satellite office's Site ID. You can then change the remote site's ID to something that has not been used.

Your attachment selection must be consistent with the site's detachment status.

Along with the Site ID, the satellite server will provide information on whether or not the site is being reattached. Reattachment lets you claim an existing site that was previously synchronized with a different server. If you ask to reattach a site, the central site will verify that the Site ID belongs to a detached site. If it does not, the site verification will be denied and the site will remain on hold. Alternatively, if you do not ask to reattach a site and there is a detached site with that Site ID, the site will be denied as a duplicate. Pay close attention to the attachment checkbox when adding a site.

The serial number must be unique for all sites.

The first time a remote site is synchronized, it reports its serial number back to the server. (If the site is an evaluation copy, it will report the serial number as soon as it is registered.) If the server is a satellite, the satellite will report the serial number back to the central server the next time it is synchronized. Central will store the serial number with its record of the remote site. If the serial number is already used at another site, the central site will report that to the satellite office and the site will be placed on hold. The server will not create packets for the site. It will accept packets from the site, but it will check to see if the serial number has been corrected and stop processing if it has not. If you have a duplicate serial number, contact your reseller for assistance.

Attaching Detached Sites

In addition to adding sites that have never before been synchronized, you can add remote sites that were previously synchronized with a different server.

To Attach a Detached Site:

1. Open Data Synchronization Server at the satellite site.
2. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open.
3. Click **Add**.

   The Detach site from this server checkbox will toggle to Site is being reattached to this server.
4. Enter a unique name for the remote site in the Site Name field.

   Note: The name 'Satellite Office' is reserved for the Satellite site. You will not be able to assign this name to any other site.
5. Enter the Site ID of the existing remote site in the Site ID field. (If you do not use the exact ID of the site you are reattaching, central will not recognize the site when the verification request is sent. If you ultimately need to use a different Site ID, you may change it after you have begun synchronization with the site.)
6. Mark the Site is being reattached to this server checkbox. (If this checkbox is not marked, central will assume you are adding a new site. Since it will have the same Site ID as an existing site, the site request will be rejected by the central as a duplicate.)
7. Click **Save** to save the site.

   Note: The site will not retain its site preferences or database settings from its original server. You will need to set up the site if you do not wish to use the Data Synchronization Server defaults.

   The next time the satellite site is synchronized with the central site, it will send a request to attach this site. If the site has been detached from another server, central will send back an approval to attach the site and the site will be taken off hold. An initialization packet will be created for the site the next time you process the outbox at the satellite. When a detached site receives an initialization packet from a server, it will become attached to that server.

Note: Once a site has been marked for reattachment, you will not be able to delete it until you receive verification from the central site. Deleting the site will make it unavailable for any other servers. If the site was added at the current server in error, wait until the central verifies the site then detach it from the server. It can then be claimed by another server. If you truly wish to delete the site, you may do so after verification. (Once the site has been deleted, the Site ID will not be available to any server and you will not be able to synchronize that installation of TeleMagic.) If you have marked the Site is being reattached to this server checkbox for a site that is actually a new site, you may unmark the checkbox to change the attachment status. This change will be reflected in the next packet you send to central. If you have not yet processed a packet for central, it will treat it as if the checkbox was never marked. If you have already sent a packet to central, central will reject the original request to reattach the site since the site has not been detached. The next packet sent to central with this checkbox unmarked will request the site as an added site instead of a reattached site.

Setting up Newly Attached Sites

Setting up sites that have been reattached is very similar to setting up new sites. You must establish the site preferences, initialization settings, databases, and database preferences. This is performed at the satellite office using the same steps that are used at the central site.

Hint: You do not necessarily need to set up your site’s user list. When the central site sends back verification for the remote site, it will also send the site’s user list from its previous server. If you want to use a different group of users, it is recommended that you make the changes after the central has verified the site.

Note: When you establish database preferences at a satellite office, they only apply to synchronization with the satellite’s remotes. What data gets synchronized to the central site is established in database preferences at central.

The only difference in setting up new sites and reattached sites is that reattached sites were probably already synchronizing a group of records before being detached. You may want to continue synchronizing those records from the new server, or you may want to establish a new set of records to synchronize.

It is important to keep in mind that, by default, synchronization from the remote to the server is transaction based. In other words, the only data the server receives from the remote are newly added records and changes to individual fields. The server will not receive existing records unless a change has been made to the record, in which case it will add the record, but the only available data will be the changed field(s). Additionally, if a record at the remote contains different data than at the server, the server will not be updated with those differences unless there are pending transactions for them. Before beginning synchronization, it is a good idea to set up your databases so they contain the same information.

In addition to establishing your databases, you should give consideration to your first time initialization settings. When a site is selected for reattachment, it will use the default initialization settings. You should carefully consider your setup requirements and determine if you want to use those defaults or if you need to select different settings.

There are a number of possible scenarios you may encounter when setting up synchronization with a reattached site:

You may want to synchronize records that already exist at both the remote site and the central.

If the records exist at both sites, it is a simple matter to begin synchronization.

1. Select the database you want to synchronize and establish your database preferences as usual.
2. When you first initialize the site, you should *unmark* the Transfer contact and activity records checkbox on the Initialization screen. This checkbox, selected by default, will overwrite the records that exist at the remote site with the records from the new server. With this unmarked, transactions will be respected during the initialization.
3. After the site has been initialized, create an outbox packet at the remote site. Transactions at the remote that were not processed prior to the site's being detached, and those that have been created since the site was detached, will be included in the next packet from the remote to the server. In this way, both sites will be updated with the latest transactions, while retaining record links to documents, activities, and sales forecasts at the remote site.

One caution before proceeding is to make sure the changes that were originally being synchronized between the initial server and the remote site were also being synchronized to the new server. For example:

- If the remote site was being synchronized with the central, the central should also have been sending those records to the satellite.
- If the site was originally synchronized with a satellite, the satellite should have been sending the records to central and, if you are reattaching to another satellite, central should have been sending the records to that satellite.

If changes from the remote were not getting to the new server, there will be differences between the records in the two sites for which there are no transactions. Use the following steps in this case:

1) Synchronize once using transactions (as described above) to get any new changes made at the remote to the server. You may want to use a transaction cutoff date at the remote to transfer older changes.

2) Select the Select all records, ignore transactions radio button in Database Preferences at the satellite office to update the remote site with any differences that remain in the records at the server.

3) Once the records at the remote match those at the server, you may select the Select records based on new transactions radio button in Database Preferences and continue synchronizing as usual.

You may want to synchronize records that exist at the remote site, but not at the server.

If the database itself does not exist, it must be added at the new server. The best way of accomplishing this depends on whether or not the records exist at the central site.

If the remote site was either previously attached to the central, or attached to a satellite office that was synchronizing those records with the central, you can add the database to the new server from the central.

1. At the central site, add that database to the list of databases being synchronized for the satellite office.
2. In Database Preferences for that database, choose Select all records, ignore transactions. (If the database includes OLE data, consider also marking the Synchronize embedded OLE fields checkbox.)
3. In Database Preferences, click **Select database files to transfer** and mark all of the checkboxes in the Database Files to Transfer dialog box.
4. The next time the site is synchronized, the database will be added at the satellite. Once the database is in the satellite office, you can set up the remote site for synchronization following the guidelines in the section above.
5. If you do not wish to continue to regularly synchronize the database from central to the satellite office, remove the database at the central from the list being synchronized to the satellite office. If you want to continue synchronizing the database between central and the satellite office, but do not want the database overwritten at the satellite each time it receives a packet from central, change the database preferences at central to respect transactions and unmark the Database Files To Transfer options.

If the database does not exist at the central, use the following steps:

1. If there are existing databases that will be synchronized with the site, *do not* set them up for the site until you have added the new database(s).
2. Manually add the database at the new server using the TeleMagic Template Maker. Do not include contact records in the template.

3. Once the database exists at the satellite office, send the first initialization packet to the site, making sure the Delete existing contact records from existing databases checkbox on the Initialization Settings screen *is not marked*.
4. At the remote site, launch Data Synchronization Server using the /ALLRECS parameter and process the inbox, then create an outbox packet. An outbox packet created using this parameter will ignore transactions and transfer all records from the remote to the satellite.
5. Process the packet from the remote site at the satellite.
6. Set up any additional existing databases that need to be synchronized with the site using the guidelines in the section above.

WARNING! If you use the /ALLRECS parameter and have selected any databases for synchronization that already contain records, those records could be overwritten with corresponding records from the remote (depending on your validations). It is strongly recommended that you wait until after you have transferred the records from the remote to the central to set up those existing databases.

You may need to synchronize an entirely new set of records to the remote site.

For example, the remote site may be a laptop for a user who was assigned to a particular region. When that user is reassigned to a different region, the laptop may need to be attached to another server and the user may need to work with an entirely new set of records for that region.

1. In this instance, you may set up synchronization with the remote site as if it were a new site.
2. You should select the new database or filter to be synchronized at the server, and initialize the site with that database using the default settings. It is recommended that you also mark the Delete existing contact records from existing databases checkbox in the site's Initialization Settings.

Hint: If you are synchronizing an entirely different database, as opposed to a different set of records in the same database, consider deleting the previous database at the remote site to avoid confusion.

Detachment/Reattachment Checklist

Use the following checklist to verify that you have properly completed all of the steps necessary to move a remote site from one server to another:

- ✍ At the original server, edit the site and mark the Detach site from this server checkbox.
- ✍ Process an outbox packet for the remote site at that server. Transfer that packet to the site's inbox and process the remote. This will instruct the site that it has been detached from its current server.
- ✍ If the original server is a satellite, process an outbox packet for the central site. Transfer the packet to the central's inbox and process. This will inform the central that the remote site has been detached and is available for reattachment at another server. (If the original server is the central, this will be done automatically when the site is detached.)
- ✍ Add the site at the server where you want to attach it, making sure to enter the site's ID as it was listed at its previous server. Mark the Site is being reattached to this server checkbox.
- ✍ Set up the databases, database preferences, site preferences, and initialization settings for the site. (You do not need to set up the user list. This will be added automatically based on the users previously listed at the site.)
- ✍ If the server to which you are attaching is a satellite, process an outbox packet for the central at the satellite. Transfer the packet to the central's inbox and process. This will inform the central that you want to reattach the site to this satellite. (If you are attaching to the central, this will be handled automatically when you add the site.)
- ✍ If you are attaching the site to a satellite, process an outbox packet at central for that satellite. Transfer the packet to the satellite's inbox and process. This will send back the verification attaching the site. (If you are attaching at central, this will be handled automatically when you add the remote site.)
- ✍ At the new server, process an outbox initialization packet for the remote site. Transfer the packet to the site's inbox and process. This will inform the site of its new server and perform first-time initialization.
- ✍ If the new server is not the central, process an outbox packet for the central at the satellite. Transfer it to central's inbox and process. This will inform central that the new server has received the reattachment verification and has taken the site off hold. (If you are attaching at central, this will be handled automatically when you add the remote site.)
- ✍ If the original server was a satellite, process an outbox packet at the central for the original server. Transfer the packet to the inbox of that satellite server and process. This will inform the original server that the remote has been claimed and it may take the site off its site list. (If the original site was the central, this will occur automatically when the new server sends its acknowledgment that it received the verification and has taken the site off hold.)

Note: This step does not necessarily need to be performed right away. This will not affect the remote's ability to synchronize with its new server. The site's record at the original server will be deleted the next time the server processes an inbox packet from the central. Any changes made to the site record at the old server during this time will have no affect.

Hint: This process may seem complicated, but most of these steps are handled automatically during the normal course of synchronization. If you are processing on a regular basis, you will probably not even be aware of the verifications between the servers and remote. The only step you really need to monitor is noting when the remote site is taken off hold. Once that has occurred, you may notify the remote site that it may resume synchronization.

Detaching Remote Sites

If you have been using Data Synchronization Server without satellite offices, you may decide that some of your remote sites currently synchronizing with the central site should be synchronized with a satellite office instead. A remote site can only synchronize with one server at a time. Before a remote site will accept a packet from a different server, you must tell it that it will no longer be synchronized with its current server. This is done by detaching the site from its server. If any of your existing sites need to be remotes of a satellite instead of the central, you should detach them so they can be attached to the appropriate satellite office. When a site is reattached, it must use the same name and site ID that it used before being detached.

Note: As time goes on, you may also need to move a remote from one satellite to another, or from a satellite to the central. For example, a user who synchronizes his laptop with a satellite office may be moved into a different region and need to synchronize with the satellite server for that region. These same steps can be followed at a satellite office to detach a remote site.

To Detach a Remote Site:

1. Open Data Synchronization Server at the central or satellite site.
2. From the Data Synchronization Server **Setup** menu, select **Site Maintenance**.

   The Remote Site Maintenance dialog box will open:
3. Highlight the site you want to detach and click **Edit**.
4. Mark the Detach site from this server checkbox.
5. Click **Save**.

Note: If you detach a site in error, you can unmark this checkbox and save. The central will view this as a request to detach, then reattach the site. If you have already sent a packet to the central with the request to detach, and another server has reattached that site, your request to reattach at this server will be rejected.

6. Reattach the site to the desired server.

The file DS2.INI for each remote will keep a list of any servers to which the site has been attached. It will tell when the site was attached to and detached from each server and display the current server for the site.

Converting Remotes to Satellites

If you have an existing remote installation of TeleMagic that you want to use as a satellite office, you can perform a conversion to change the remote to a satellite.

To Convert a Remote Site to a Satellite Server:

WARNING! If you convert a remote to a satellite, you will not be able to convert it back to a remote.

Note: You may only convert remotes that are attached to the central server. If you want to convert a remote that is currently attached to another satellite server, you must first detach it from its current server and reattach it at the central.

1. Insert the installation CD-ROM in your CD-ROM drive.
2. The setup program will launch.

or If the setup program does not automatically launch under your workstation configuration in Windows, select **Start**, **Run** from the taskbar to open the Run dialog box. In the Open: field type D:\SETUP.EXE (where D: is the drive letter of your CD-ROM drive) and click **OK**.

The TeleMagic Setup screen will open.

3. Click the **Install/Upgrade TeleMagic Data Synchronization** button.

   The Welcome screen will open.

4. Carefully read the Welcome screen and follow any instructions given, then click **Next>**.

   The Select Data Synchronization Type screen will open.

5. Select the Convert Existing Remote To Satellite radio button and click **Next** >.

   The Choose Destination Location screen will open.

6. Enter the main TeleMagic directory (the directory where your TeleMagic files are stored) in the field, or click **Browse...** to locate the directory from a Choose Directory dialog box. When you have selected the directory, click **Next >**.

   A screen will appear showing the default TeleMagic Program Folder to hold the Data Synchronization Server icons.

7. Click **Next >** to accept this Program Folder.

or If this is not the correct Program Folder, select the correct Program Folder containing your TeleMagic icons from the Existing Folders list. When you are satisfied with your selection, click **Next >**.

or Enter the name of a new Program Folder and it will be created. When you are satisfied with your selection, click **Next >**.

   A screen will appear showing all of the current settings that you have selected for this installation.

8. Click **Next >** to accept these settings and continue with the installation.

or Click **< Back** to review and change any of the settings. If you use **< Back** to review or change any options, use **Next >** to return to this step and continue with the installation.

   When you click **Next >** the installation program will start and copy the appropriate files to convert this remote to a satellite.

   After the files have been copied, a new screen will appear to inform you that the files have been installed and the Data Synchronization Server conversion is ready to convert your TeleMagic files for use as a satellite server.

9. Click **Finish**.

   The conversion will proceed. After it has completed, you will see a message that the conversion was successful and the installation is complete.

10. Click **OK**.

    The installation program will return you to the TeleMagic Setup screen.

11. Click **Exit**.

12. Open Data Synchronization Server at the central site and follow the steps in the *Marking a Site as a Satellite* in the *Setting up a Satellite Server at the Central Site* chapter for the remote site that has been converted.

13. Process an outbox packet for that site at central and transfer it to the new satellite.

14. At the satellite, process the packet from central.

    This completes the conversion of the remote to a satellite site.

Hint: A new icon will be added to the Program Folder specified in step 8 to launch DSSERVER.EXE. If you have been launching DSREMOTE.EXE from an icon, you may want to delete your old icon to avoid confusion. You should also change any shortcut you are using for Data Synchronization to reflect the new executable. If you have been using command line parameters, they will need to be attached to the new shortcut or icon. (Parameters for launching a script are not applicable at a satellite office.)

Server Maintenance

About Screen

The Data Synchronization Server About screen contains helpful system information related to your central or satellite installation.

To View the About Screen:

1. From the Data Synchronization Server **Help** menu, select **About…**.

   The About screen will open.

2. When finished viewing the About screen, click **Close**.

Rebuilding the Server

In order to keep your central location performing optimally, you should perform regular rebuilds. It is highly recommended that you rebuild your server on a daily basis.

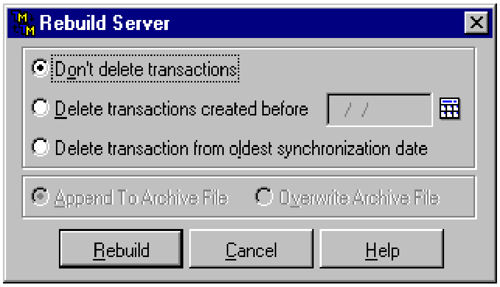
In addition to rebuilding the files Data Synchronization Server uses, you have the option of archiving outdated transaction records. When you know that all sites have received transactions, and that you will not need them for date and time field level validation, it is safe to delete them.

Note: The transactions will continue to be deleted during rebuild at remote sites.

To Rebuild the Server:

1. From the TeleMagic Data Synchronization Server **File** menu, select **Rebuild**

   The Rebuild Server Files dialog box will open:



Rebuild Server Dialog Box

Note: You do not necessarily have to delete transactions during rebuild. If you want to perform a rebuild that does not delete transaction records, skip to step 4.

2. If you want to delete all transactions before a specific date, mark the Delete transactions created before radio button and enter the date in the field.

3. If you want to archive all transactions with a date before the oldest synchronization, mark the Delete transactions from oldest synchronization date radio button. When marked, Data Synchronization Server will check all sites to determine which was processed the least recently and delete all transactions prior to that date and time. This will remove all transactions that have been included in an outgoing packet. (This option is not recommended if you are using the Validate Contact Record Revisions at Field Level option in Site Preferences for any site.)

Note: If you select either of these options, transactions preceding the specified time will no longer be available when you specify a Transaction Cutoff Date in Site Preferences. If you have selected the Validate contact record revisions at field level option in Site Preferences, the date and time of each incoming transaction record is compared to the date and time of the last transaction for that field at the site to determine which has been edited more recently. If transactions have been archived, it will appear that the field has not been edited in the target database. Make sure that you will no longer need the transactions before removing them.

4. If you want to add the transactions that are being removed to the end of the file of transactions that have already been archived, select the Append To Archive File radio button.

or If you want to replace any existing file of archived transactions with the latest transactions, select the Overwrite Archive File radio button.

Note: If there is no archive file, this radio button will be unavailable.

5. When you are ready to proceed with the rebuild, click **Rebuild**.

or If you do not wish to rebuild, click **Cancel**.

When you rebuild, the specified transactions will be removed from the transaction table and placed into two files called TMTRANAR.DBF and TMTRANAR.FPT in the TeleMagic common directory.

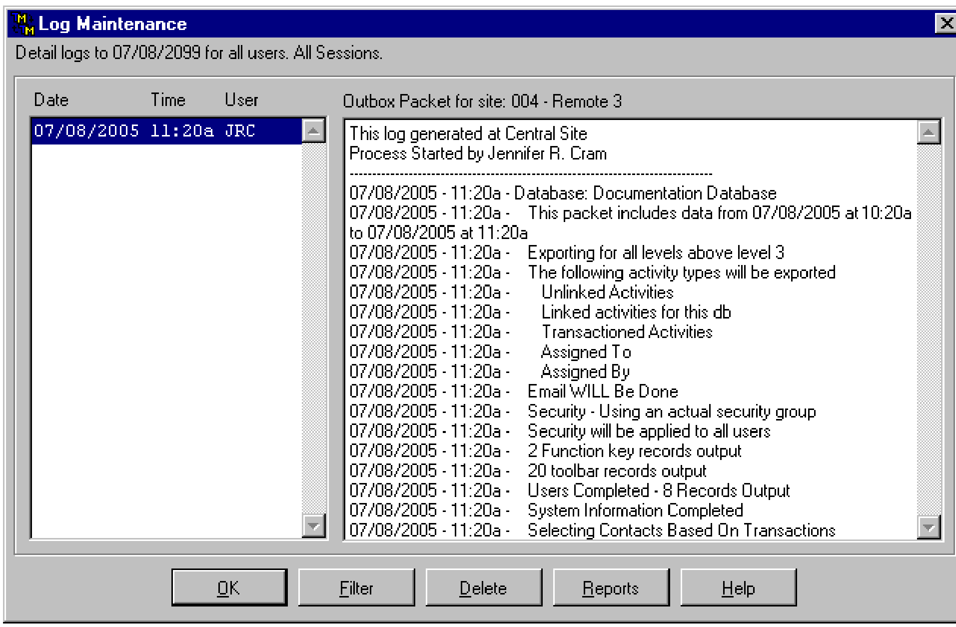
Viewing the Server Maintenance Log

Data Synchronization Server keeps a log of each synchronization process, which can be useful in troubleshooting, or in simply keeping track of what has been processed.

To View the Log:

1. From the Data Synchronization Server **Maintenance** menu, select **Log Maintenance**.

   The Log Maintenance dialog box will open:



Sample Log Maintenance Dialog Box

2. View the information in this log using the following guidelines:

   The filters in use for this display are shown directly below the title bar.

   Date shows the date the synchronization was run.

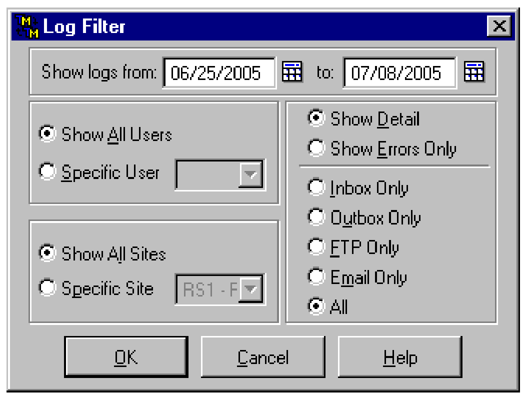
   Time shows the time the synchronization was run.

   User displays the User ID of the user logged into Data Synchronization Server when it was synchronized.

   The memo field on the right side of the screen shows details on the highlighted selection. (If the server is currently processing the highlighted entry, there may be no data available.)

3. To control what information is included in this display, click **Filter**.

   The Log Filter dialog box will open:



Sample Log Filter Dialog Box

4. Enter the synchronization dates you want included in the log in the Show logs from: and to: fields, or use the Date Picker icons to select the dates from a pop-up calendar.

5. If you want the log to include synchronizations run by any users, select the Show All Users radio button.

or If you want the log to only include synchronizations run by a particular user, select the Specific User radio button and select the user from the drop-down list.

6. If you want the log to include synchronizations performed for all sites, select the Show All Sites radio button.

or If you would only like to include synchronizations for a specific site, select the Specific Site radio button then select the site from the drop-down list.

7. Select Show Detail if you want to see full details on the synchronization.

or Select Show Errors Only if you only want to view details if an error has occurred.

8. If you want to view logs relating to the synchronization of the inbox only, select the Inbox Only radio button.

or If you want to view logs relating to the synchronization of the outbox only, select the Outbox Only radio button.

or If you want to view logs relating to synchronization via FTP transfer, select the FTP Only radio button.

or If you want to view logs relating to synchronization via TeleMagic Internet Mail only, select the E-mail Only radio button.

or If you want to view logs relating to all of the above, select the All radio button.

9. Click **OK** to activate the selected filter.

or Click **Cancel** to retain the original filter.

You will be returned to the Log Maintenance Dialog box. Your filter selections will be reflected below the title bar.

10. Highlight any entry in the list on the left to view details on that synchronization.

11. When finished viewing your logs, click **OK**.

Note: It is possible to print a report based on this data.

To Delete Outdated Logs:

You must have the Log Maintenance screen open to perform this procedure.

1. If you want to delete a single log, highlight it on the list on the left.

or If you want to delete a group of logs, select a filter following steps 3 through 9 under *To View the Log*, above.

2. Click **Delete**.

The Choose Records to Delete dialog box will open:

Choose Records to Delete Dialog Box

3. If you want to delete the currently highlighted log, click **Highlighted**.

or If you want to delete all logs in the current filter, click **Filtered**.

The specified log(s) will be deleted.

Reports

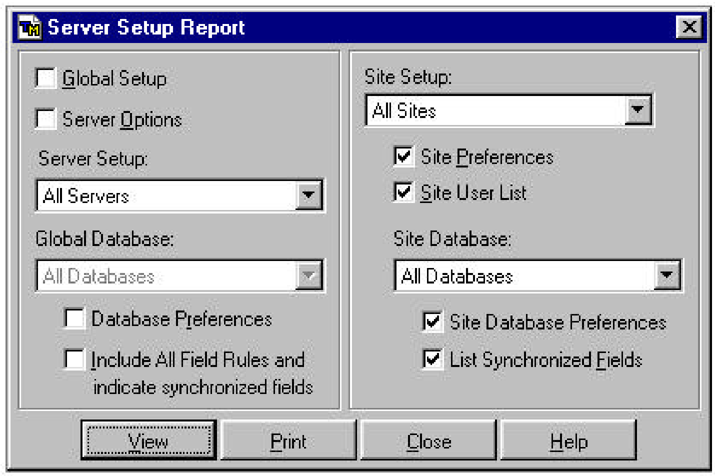
Server Setup Report

It is possible to create a report that will list your settings for each site. This is useful in maintenance as it allows you to quickly view and analyze the current settings to determine if any need to be adjusted.

To Print a Setup Report:

1. From the Data Synchronization Server **File** menu, select **Reports**.

   The Server Setup Report dialog box will open:



Server Setup Report Dialog Box

2. Mark the Global Setup checkbox if you want to report on your Global Options. This includes default preferences, security, file sets, and scripts. Unmark it if you do not want global options included in the report.
3. If you want your report to include information on your Server Options settings, mark the Server Options checkbox. (This includes inbox and outbox options and other system-wide settings.) Unmark this checkbox if you do not want data pertaining to Server Options included in the report.
4. Use the Server Setup list if you want to report on the servers you have set up. This will include information on how processing occurs by the specified server(s). Select All Servers to include information on every server you have set up; select a specific server from the list to only include information on that server; or select None if you do not want to include server information.

   You have the option of reporting on Global Database Preferences and field rules for a specific database or all databases.

5. Use the Global Database: drop-down list to select the database(s) you want included in the report. If you select All Databases, you will be able to report on field rules for all databases in your central installation (whether they are synchronized or not) and preferences for all databases synchronized globally. If you select an individual database, you will be able to report on field rules for that database and preferences if it is synchronized globally. (If it is not, the Database Preferences checkbox will be unavailable.) If you select None, no global settings will be included.

   If you selected All Databases or a specific database that is synchronized globally in the Global Database list, the Database Preferences checkbox will be available.

6. If you want to include preferences for the selected database(s), mark the Database Preferences checkbox. Unmark it if you do not wish to report on preferences.

7. If you want to include field rules for the fields in the database(s) selected in step 5, mark the Include All Field Rules and indicate synchronized fields checkbox. This will list every field and its field rule. It will also indicate which fields are included in synchronization for any databases that use the global database preferences.

   Note: If you unmark both Database Preferences and Include All Field Rules and indicate synchronized fields, the Global Database list will become disabled.

   The Site Setup drop-down list allows you to report on information specific to individual sites.

8. Select the site(s) on which you want to report from the drop-down list. If you select All Sites, every site you have set up will be included. If you select an individual site, only information pertaining to that site will be included in the report. If you select None, the following site-specific options will be unavailable. No site-specific information will be included.

   If you have selected anything other than None in the Site Setup drop-down list, the Site Preferences checkbox will become available.

9. Mark the Site Preferences checkbox if you want to report on the site preferences for the site(s) selected in step 8. Unmark it if you do not want this information included.

   If you have selected anything other than None in the Site Setup drop-down list, the Site User List checkbox will become available.

10. If you want to include the list of users established in Remote User Maintenance for this site, mark the Site User List checkbox. Unmark it if you do not want to include the list of users.

    If you have selected All Sites or a specific site that is unlinked from the Global Database settings in the Site Setup drop-down list, information from your site specific Database Preferences can be included in the report. You will have the option to list the Database Preferences established for each site and/or list the fields being synchronized to the site.

Note: Do not confuse Site Preferences with Site Database Preferences. Site Preferences include such settings as whether or not e-mail should be synchronized to users at the site and whether the site should use date and time validation. Site Database Preferences allow you to select what database related information each site should receive. (This is the same basic information as the Global Database Preferences, but includes information for sites that do not reference the Global Database Preferences.)

11. Select the database(s) on which you want to report from the Site Database drop-down list. If you select All Databases, preference settings for all databases that are being synchronized to the site(s) selected in step 8 will be included in the report. If you select a specific database, only the preference settings for the specified database will be included in the report. If you select None, you will not receive site specific Database Preference information in the report.

    Note: If you have selected a single site in step 8 that is using the global settings, the Site Database Preferences option will be dimmed.

12. Mark the Site Database Preferences checkbox to include the database preference information (except the list of fields being synchronized). Unmark it if you do not wish to include preferences.
13. If you want to include the list of fields selected in Database Preferences for the site, mark the List Synchronized Fields checkbox. Unmark it if you do not want to include the list of fields.

    Note: If you unmark both Site Database Preferences and List Synchronized Fields, the Site Database Preferences list will become disabled.

14. To preview the report, click **View**.
15. When you are finished viewing the report, click **OK**.
16. To print the report, click **Print**.

or Click **Close** to exit the Server Setup Report dialog box.

Note: Be aware that these reports can be quite long, especially if you have multiple sites and are including Database Preferences for several databases.

Log Maintenance Report

The Log Maintenance report allows you to create a report based on the information available at the Log Maintenance dialog box.

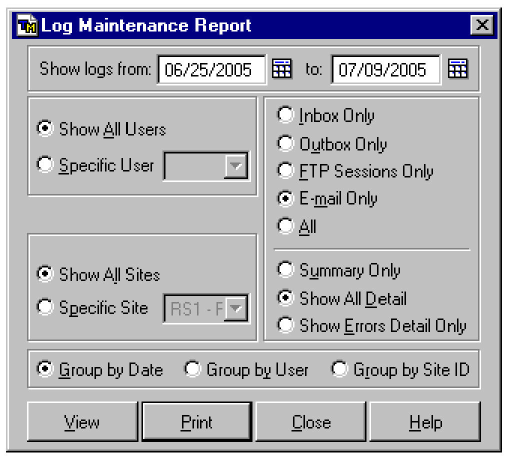
To Print a Log Maintenance Report:

1. From the Data Synchronization Server **Maintenance** menu, select **Log Maintenance**.

   The Log Maintenance dialog box will open.

2. Click the **Reports** button.

   The Log Maintenance Report dialog box will open:



Log Maintenance Report Dialog Box

The options on this dialog box will default to the filter settings for the Log. Any changes you make to these settings will also change the filter in use.

3. Enter the synchronization dates you want included in the report in the Show logs from: and to: fields, or use the Date Picker icons to select the dates from a pop-up calendar.

4. If you want the report to include synchronizations run by any users, select the Show All Users radio button.

or If you want the report to only include synchronizations run by a particular user, select the Specific User radio button and select the user from the drop-down list.

5. If you want the report to include synchronizations performed for all sites, select the Show All Sites radio button.

or If you want to only include synchronizations for a specific site, select the Specific Site radio button then select the site from the drop-down list.

6. If you want to report on the synchronization of the inbox only, select the Inbox Only radio button.

or If you want to report on the synchronization of the outbox only, select the Outbox Only radio button.

or If you want to report on FTP transfer information, select the FTP Sessions Only radio button.

or If you want to report on both boxes, as well as FTP file transfer information, select the All radio button.

7. Select from the following radio buttons to control how much detail is included in the report:

   - Select Summary Only if you want to only include the date and time the synchronization and/or FTP file transfer was run, the user performing the synchronization, the type, and the status.
   - Select Show All Detail if you want to include all of the information pertaining to the synchronization and/or FTP file transfer (including the summary details).
   - Select Show Errors Detail Only if you want to only include the summary detail and information on any errors that occurred.

8. If you want the report to print in order of the date the synchronization and/or FTP file transfer was performed, select Group by Date.

or If you want the report to print in order of the user who performed the synchronization, select Group by User.

or If you want the report to print in order by the Site ID, select Group by Site ID.

9. If you want to preview your report, click **View**.

10. When you are finished viewing the report, click **OK**.

11. To print the report, click **Print**.

or Click **Close** to exit the Log Maintenance Report dialog box.

Date Conversion

If you change the date format in use at the central installation, Data Synchronization Server provides a tool for quickly updating existing dates in memo and Last Revision fields to the new date. This will prevent potential sorting errors resulting from a mixture of date formats.

Example: If your central site was previously using the format MM/DD/YY, then switches to DD/MM/YY, the date December 11, 2099 previously entered as 12/11/2099 would now be read as November 12, 2099 and sorted accordingly.

To prevent this, you can automatically change the existing dates at the central site to the new format using the Date Conversion feature.

Note: If your notepads currently have mixed date formats, it is not recommended that you use this utility. If you do, you may end up with duplicate stamps. In that case, it is better to manually edit dates in the notes as records are edited.

To Perform Date Conversion:

Note: This set of steps assumes that you have already changed the Date Format in use at the central site using the date settings in Server Options.

1. Open Data Synchronization Server at the central or satellite site.
2. From the Data Synchronization Server **Maintenance** menu, select **Date Conversion**.

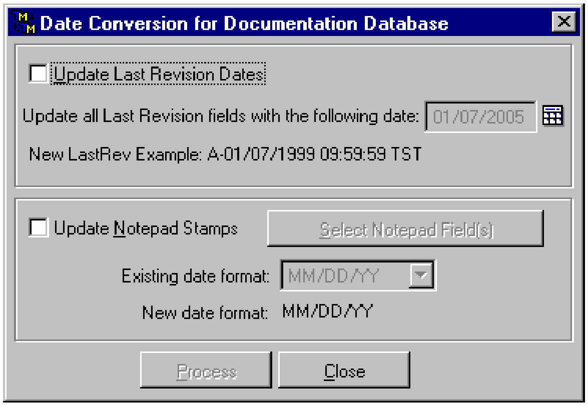
   A Date Conversion - WARNING dialog box will open confirming that you have a complete backup before continuing.
3. If you do not have a backup, click **Continue**. You will be advised to make a backup before proceeding and the Date Conversion program will exit.

or If you have a backup, type YES in the field and click **Continue** to proceed.

   The Choose Database dialog box will open.

4. Select a database to convert and click **Select**. (Only the databases that are selected for synchronization will be available on the list. If you have no databases selected for synchronization, you will be instructed to select a database before proceeding.)

The Date Conversion dialog box will open:



Date Conversion Dialog Box

5. If you want to replace all of the dates found in the Last Revision fields in the database with a date using the new date format, select Update Last Revision Dates. (Replacing the Last Revision dates allows you to ensure that all of your Last Revision fields will contain the same date format. This is the equivalent of resetting the field.)

   Note: If you have already converted the Last Revision fields in the selected database, you will be warned that it has already been converted. Select **Yes** to proceed regardless. If you select **No** the checkbox will be unmarked.

6. Enter the date to be used in the Last Revision fields. This will default to the current date.

7. If you want to have all dates of a specified format that exist in memo fields changed to the new date format, select Update Notepad Stamps.

   Note: If you have already converted the memo fields in the selected database, you will be warned that they have already been converted. Select **Yes** to proceed regardless. Be aware that repeating this process could result in duplicate stamps. If you select **No** to the checkbox will be unmarked.

8. Click **Select Notepad Field(s)** to open a dialog box where you can select the fields to be converted. Add all fields that need to be converted and click **OK**.

9. Select the existing date format that should be converted from the drop-down box. (This is the date format that currently appears in the memo fields.)

   The new format to which these dates will be converted will be displayed to the right of the drop-down box. This is the format that is defined in Server Options. If this needs to be changed, do so before proceeding.

10. When satisfied with the settings, select **Process**.

    You will be asked to confirm notepad changes.

11. Click **Yes** to proceed.

    You will be prompted to preview converted notepads.

12. Click **Yes** and an example of what your notepads are going to look like will appear. You may select the next or previous record.

or Click **No** to continue without previewing changes.

13. If you selected to preview the notepads, select **Close** when you are finished viewing.

    You will be asked if the notepads are formatted correctly.

14. Click **Yes** to continue.

or Click **No** to go back to the main conversion screen and adjust your settings.

If you selected **Yes**, the conversion will proceed. A status screen will display what fields are being converted. When complete, an OK dialog will appear.

15. Click **OK**.

    You will be returned to the Select Database dialog.

16. Now you can convert any other databases that have not yet been converted.

or Close this screen.

WARNING! Do not convert your notepad fields more than once. If you run the same conversion twice in the same database, you may end up with duplicate stamps in the notepad.

Maintaining Your Remote Sites

Maintenance of the remote sites consists of any adjustments that need to be made to the remote site setup options and using the About Screen, Log Maintenance, and Rebuild features to troubleshoot and optimize the sites.

Maintenance for your sites will largely depend on the number of remote locations you are using. If you have a small number of laptop users who bring their laptops back to the office each evening, you may make site maintenance a function of the user responsible for maintaining the central location. If you have a large number of remote locations, or laptops that are not brought back to the central installation, it would probably be better to make the user at each site who is responsible for synchronization also responsible for maintenance. Whatever system you decide upon for maintenance, each user should be clearly informed of his or her responsibility to ensure consistent maintenance.

Remote Site Setup Maintenance

There are very few setup functions actually performed at the remote sites. Most of the settings related to the sites are configured at the central location. You may never have to adjust your settings at the remote sites. If you do, you will probably find it is a simple procedure.

File Paths

You can change the path to your inbox and outbox at any time. Before changing these settings, think about any other areas where you may reference the current paths. For example, if you are using a communications server that uses a script or a batch file that includes the file paths, you will probably need to change the path there as well to reflect your edits.

Time Zones

Time zone settings can be adjusted both at the remote site and directly from the central location. If you edit your time zone, but find the setting reverting back to the original setting (or a different time zone) an initialization has been performed from the central location that changes this time zone. If the time zone is changed in the remote location and a synchronization is performed from the remote site to the central installation, the time zone will be updated on the initialization screen at the central site. If you find that the time zone settings continue to change during initialization someone has probably intentionally changed this setting at the initialization screen. You should coordinate with the central installation to determine what time zone settings should be used.

Scripts

Scripts at the remote sites will fall into two categories: those that were added directly at the remote site and those that have been created at the central location and transferred during synchronization. When creating scripts at the central installation, it is advisable to make sure that any program or batch file referenced in the script actually exists in the remote installation. If you have a problem using a script, check to make sure that any programs or batch files used with the script exist and work at the remote site.

If you have received a script from the central installation, you may have to tailor it to the needs of the site. You may also find that not all of the scripts that were sent are necessary for this site. You can edit these scripts, or those that were created at the site, at any time.

Hint: An icon has been provided to launch a script named Default that can be provided by the central installation. Once the script has been sent from the central installation, you can edit it for each site, if desired. Or, if the central installation did not provide the default script, you can create a script named Default at the remote site for use with this icon.

To Change a Script:

1. From the Data Synchronization Remote **Setup** menu, select **Script Setup**.

   A Scripting dialog box will open with your list of scripts.

2. If you want to change the details of a script, highlight it on the list and click **Change**.

   The Remote Script Setup dialog box will open.

3. If you want to change the order in which any step in the script is executed, click and hold the mover box  next to the step description while dragging the step to the appropriate position. Repeat this until all steps are in the desired order.

4. If you want to change the details of any step, highlight it on the list and click **Change**.

   The step details will become available and the **Save Script** button will toggle to a **Save** button.

5. Make any necessary changes to the step and click **Save**.

6. If you want to remove any step from the script, highlight it and click **Delete**.

   A message will appear asking you to confirm your decision to delete.

7. Click **Yes** and the step will be deleted.

or Click **No** to retain the step.

8. When you are satisfied with your script, click **Save Script**.

   You will return to the Scripting dialog box.

To Delete a Script at a Remote Site:

1. From the Data Synchronization Remote **Setup** menu, select **Script Setup**.

   A Scripting dialog box will open with your list of scripts.

2. Highlight the script you want to delete from the list and click **Delete Script**.

   You will be asked to confirm your decision to delete the script.

3. Click **Yes** and the script will be deleted.

or Click **No** and the script will be retained.

About Screen

The Data Synchronization Server About screen contains helpful system information related to your remote installation.

To View the About Screen:

1. From the Data Synchronization Server - Remote **Help** menu, select **About…**.

   The About screen will open.

2. When finished viewing the About screen, click **Close**.

Rebuilding Your Sites

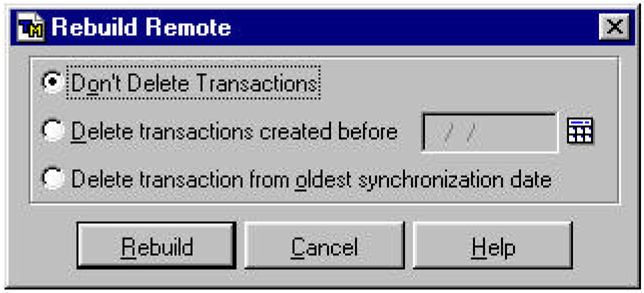
In order to keep your remote locations performing optimally, you should perform regular rebuilds. It is highly recommended that you rebuild your sites on a daily basis.

In addition to rebuilding the files Data Synchronization Server uses, you have the option of deleting outdated transaction records. You should periodically delete old transactions that have been processed into packets and delivered to the central installation.

To Rebuild Data Synchronization Server on the Remote Sites:

1. From the Data Synchronization Remote **Maintenance** menu, select **Rebuild**.

The Rebuild Remote dialog box will open:



Rebuild Remote Dialog Box

2. If you want to perform a rebuild that does not delete transaction records, select the Don't Delete Transactions radio button.

or If you want to delete all transactions from before a specific date, select the Delete transactions created before radio button and enter the date in the field.

or If you want to delete all transactions with a date before the last time the outbox was synchronized at the site, select the Delete transactions from oldest synchronization date radio button. This will remove all transactions that have been included in an outgoing packet. (This option is not recommended if you are using the Validate Contact Record Revisions at Field Level option for the site.)

Note: If you delete transactions, transactions preceding the specified time will no longer be available when you specify a transaction cutoff date using the /TD parameter. If the site is set to perform date and time validation (using the Validate contact record revisions at field level option in Site Preferences at the central installation), the date and time of each incoming transaction record is compared to the date and time of the last transaction for that field at the site to determine which has been edited more recently. If transactions have been deleted, it will appear that the field has not been edited in the target database. Make sure that you will no longer need the transactions before deleting.

Note: Deleting transactions at remote sites is limited to supervisor users. If a user is not a supervisor, he or she will be able to perform a rebuild, but the checkboxes for deleting transactions will not be available.

3. When you are ready to proceed with the rebuild, click **Rebuild**

or If you do not wish to rebuild, click **Cancel**.

Viewing Site Logs

Each site will produce a log of synchronization activities similar to the log maintained at the central location.

To View a Remote Site's Maintenance Log:

1. From the Data Synchronization Remote **Maintenance** menu, select **Log Maintenance**.

   The Log Maintenance dialog box will open.

2. Follow the guidelines in steps 2 and 13 under *Viewing the Server Maintenance Log* in the section *Maintaining Your Central Location*, earlier in this chapter.

Remote Site Log Maintenance Report

You can print a report based on the information available at the Log Maintenance dialog box for your remote site. This report is identical to the Log Maintenance report available for your central location. To create a report, click **Reports** on the Log Maintenance dialog box.

Troubleshooting

FTP in the Maintenance Log and Report

If you are using FTP transfer or TeleMagic Internet Mail to transfer packets, this information will be included in your Maintenance Log and in the Maintenance Log Report.

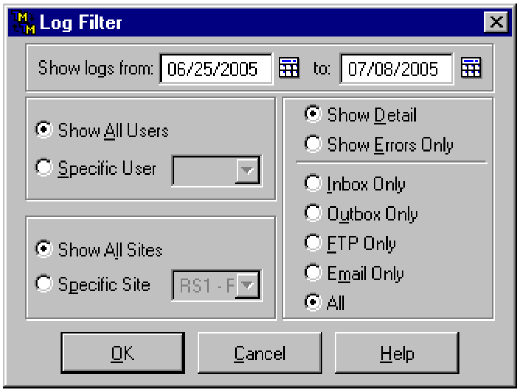
To View FTP Logs:

1. From the Data Synchronization Server **Maintenance** menu, select **Log Maintenance**.

   The Log Maintenance screen will open.

2. Click **Filter**.

The Log Filter dialog box will open:



Log Filter Dialog Box

This dialog box now gives you the option of viewing logs for the inbox only, the outbox only, FTP only, E-mail only, or all logs.

3. To view FTP file transfer data in your log:

   ?? Select FTP Only if you do not wish to include inbox and outbox information in the log. The log will only include file transfer.

   ?? Select All if you want to view FTP data, as well as information from your inbox and outbox.

4. Make any other filter selections and click **OK**. (If you are unfamiliar with the other options on this dialog box, click **Help** for instructions.)

   The FTP information will be included in the log.

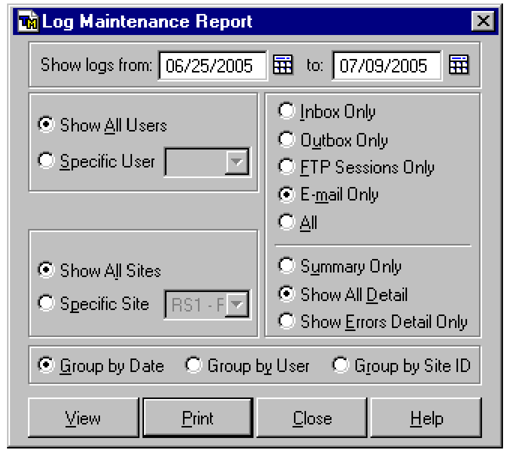
To Report on FTP Data:

1. From the Data Synchronization Server **Maintenance** menu, select **Log Maintenance**.

   The Log Maintenance screen will open.

2. Click **Reports**.

   The Log Maintenance Report screen will open:



Log Maintenance Report

   This report now gives you the option of including information from the inbox only, the outbox only, FTP only, or all data.

3. To report on FTP file transfer:
   - Select FTP Sessions Only if you do not want to include inbox and outbox I nformation in the report. The report will only include file transfer information.
   - Select All if you want to report on FTP data, as well as information from your inbox and outbox.
4. Make any other necessary report selections.
5. When satisfied with your selections, click **Print**.

   The FTP information will be included in the log.

Troubleshooting Tips

You will not be able to transfer template packets through FTP or TeleMagic Internet Mail. If you are using template packets, you must continue to transfer them manually.

If you receive a message that DSS is unable to locate the TM.INI or DS2.INI file, a file that is required to run TeleMagic or Data Synchronization Server is not accessible. The TM.INI file should exist in the \PROGRAMS directory, and the DS2.INI file should exist in the \TMSYNC directory (located off the main directory). Make sure those files exist and that you have network security rights to those directories, as well as network access from the current workstation.

If a packet is not generated for a site, verify that at least one database and one user has been added to the remote site at the central or satellite that serves the remote. Note that there is no error message generated if this occurs. To add users to a site, open the **Setup** menu and select **User Maintenance**. Select the site from the list and select **Add**. Enter the users ID and name. To add a database for synchronization, open the **Setup** menu and select **Databases to Synchronize**. Select the database(s) from the list of databases available.

If you have selected to perform continuous processing and it exits after one time, there is an error in the file that contains the DSS configuration settings. DSS writes your configuration settings to a file. If the information on your selection for continuous processing is not found, it will default to processing one time then exiting. Access Data Synchronization Server Transport Options from the **Setup** menu. Correct the setting and **OK**.

If you receive an error that DSS is not able to access the local inbox or outbox, there is a problem with the path to your inbox or outbox that has been set up in Data Synchronization Server. (These are the directories on your local PC or network that Data Synchronization Server uses to process inbox and outbox packets.) Make sure that you have selected a valid path and that you have network access to that location from the current workstation. The user currently logged onto the network should also have security access to that path.

If you fail to make the Internet or FTP connection after the specified number of retries, a message will appear in the status bar. If you are processing continuously, DSS will go idle and attempt to connect again the next time it processes. If you are processing one time only, you will be informed that the connection could not be made and DSS will exit.

If you have entered an invalid password in Transport Options, a password prompt will appear. Enter the correct password to continue. Access Data Synchronization Server Transport Options from the **Setup** menu to correct the password.

If you receive a message that DSS cannot write to or transfer from the FTP site, there is a problem with the path that has been entered for the storage or retrieval directory on the FTP site. Access Data Synchronization Server Transport Options from the **Setup** menu. Correct the FTP directory path and **OK**. It is also possible that you do not have rights to the directory on the FTP site, the directory on the FTP site does not exist, or that the connection was lost.

If you receive a message that DSS cannot get the file list, there is a problem in communicating with the FTP site. Before file transfer can occur, the DSS must retrieve a list of the files that are in the target directory on the FTP site. If it is unable to get this list, file transfer will not proceed. A message will appear in the status line informing you of this fact. If you are processing continuously, DSS will go idle and attempt it again the next time it processes. If you are processing one time, a message will appear informing you that file transfer was not successful.

If the packet already exists on the FTP site, the file will not be transferred. If you are uploading to the FTP site, any packet from this site already existing in the target FTP directory must be retrieved by the appropriate site before a new packet for that site can be uploaded.

You may receive a message that the file sizes do not match. As a safeguard to verify that the packet was not damaged during transfer, DSS verifies that the final file size matches the original file size. If there is a discrepancy, the transferred file will be deleted. You should perform the file transfer again.

If there is no packet to transfer, you will be informed of this fact in the Maintenance Log.

If DSS is unable to gain exclusive use of a packet, you will receive a message in the status bar informing you of this fact. If you are processing continuously, DSS will go idle and attempt to access the file again the next time it processes. If you are processing one time only, a message will appear informing you that the packet could not be accessed and DSS will exit.

Note: It is highly recommended that only a system administrator adjust the following settings.

If you receive a "Connect To" dialog when initiating FTP transfer, access the Control Panel's Internet Properties. Select the **Connection** tab and unmark the Connect to the Internet as needed checkbox.

You may receive the following message:

> You are currently using NetWare servers which will be inaccessible if you establish this connection.

Novell networks use the IPX/SPX protocol to allow you to access your network over the Internet. The problem with this is that if it is used when dialing out, it leaves your network accessible to unauthorized users over the Internet. To account for this, when you dial out with the IPX/SPX protocol in place, the NetWare servers are made inaccessible to block unauthorized access.

You will most likely continue to need access to your network when dialing with DSS. If you receive this message, use the following steps to exclude the IPX/SPX protocol from your Dial-Up connection:

1. Access Dial-Up Networking (located in the My Computer and Accessories folders).
2. Find the connection selected for use with FTP transfer in the list of available connections.
3. Right-click on the connection to open the menu and select **Properties**.
4. On the properties screen, click the **Server Type...** button.
5. At the Server Types screen, unmark the IPX/SPX Compatible checkbox and click **OK**.
6. Click **OK** again at the properties screen.

Note: You also have the option of totally removing the IPX/SPX bind to the Dial-Up adapter from the Network screen in the Control Panel. If IPX/SPX is removed from the bindings for the Dial-up Adapter in Network Setup, no modem connections will be able to use it.

FEATURE CHANGES IN DSS V5

V5 Enhancements

Perform Calculations

There is now an option to perform calculations on synchronization. When selected, calculated fields are updated at the end of the synchronization process. Calculated fields are not updated on synchronization when this option is not selected. If the **Transfer contact and activity records** check box is marked when performing an initialization, the **Perform Calculations** setting is ignored and calculated fields are synchronized from the packet. This option is located in Database Preferences and can be applied at Central and Satellite sites.

Initialize Child Records

There is now an option to initialize child records when the filter data for their parent records have been changed. This option is available in Database Preferences at the Central and Satellite sites. Using this option may impact overall performance.

Initialize All Records in Filter

There is now an option to initialize all of the records in a specified filter. This option in Enterprise's Record Initialization dialog box.

Synchronize Sales Forecasts

There is now an option to synchronize sales forecasts. Synchronization of sales forecasts follows the same rules as activities. There is an option on initialization to include linked sales forecasts and to transfer sales forecasting records. Routine synchronization of sales forecasts is set in Database Preferences.

Synchronize Custom Reports

There is now an option to synchronize custom reports. When selected, the user can choose which custom reports to synchronize. This option is available from Database Preferences under Database Files to Transfer. This option is set at the Central and Satellite sites.

Synchronize Database Documents

There is now an option to synchronize database documents. The user can select the document(s) to be synchronized, and will be warned when attempting to synchronize documents with duplicate names. This option is available from Database Preferences under Database Files to Transfer. This option is set at the Central and Satellite sites.

GLOSSARY

Glossary

A

Activities Items scheduled on the calendar in TeleMagic. Activities can be included in synchronization.

B

Batch file A text file containing a series of commands used to automate repetitive tasks. You can include program names, operating system commands, batch language commands and other variables in your batch files.

C

Central Installation See: *Central Site*.

Central Site The main installation of TeleMagic used in synchronization. All other sites are synchronized with this installation. All settings and configurations for the remote sites are made and maintained at this central location. Compare: *Remote Site* and *Satellite Site*.

Central User List The list of users who belong at each site maintained at the central installation. The main Central User List is a complete list of all users at all sites. In addition, each remote site will have a site specific central user list that will be synchronized to the list of users actually at the remote installation of TeleMagic.

Common Directory

The directory which contains files common to all databases and all users (such as security files). This directory is named \COMMON. See also: *TeleMagic Root Directory*.

Communications Server

An application, such as an e-mail system, that allows you to transfer files to locations outside of your current network using a modem. See also: *Modem*

D

Database Files

In Database Preferences in Data Synchronization Server, this pertains to the files that contain structural information for a database. It includes all fields and their layout, filters, indexe s, list boxes, and preferences. (Within TeleMagic, Database Files also include contact data.)

Date Separator

A character used to separate the parts of a date in date fields. (For example, in the date 03-28-99, the date separator is the dash "-".) You can select which date separator you want to use in memo fields during synchronization through Site Preferences.

Database Preferences

Global Database Preference settings which allow you to select defaults for what data is to be synchronized from each database. These settings can control the exchange of data from as broad a spectrum as an entire database level, or as restrictive as individual fields. See also: *Site Database Preferences*.

DSS

Data Synchronization Server.

E

Everyone Security Group A security group that can be created in the remote sites and used as a default when adding new users to a site during synchronization. See also: *Security Group*.

Expression A string of characters which, when evaluated, generates a new or specific piece of information. Used in Data Synchronization Server in field rules to control when a field gets replaced. See also: *Field Rules*

F

Field Level Synchronization The type of synchronization performed by Data Synchronization Server. During synchronization, each changed field is analyzed individually and replaced according to rules established for that field. Compare: *Record Level Synchronization*. See also: *Field Rules*.

Field Rules Rules which allow you to control how and when information in the central installation is replaced with information from a remote site for any field.

File Set A selected group of files that can be transferred to a remote site during synchronization.

FTP File Transfer Protocol. A protocol used to manage the transfer of files across the Internet.

FTP Site A computer, accessible via the Internet, which uses an FTP server program. Generally used for file storage and retrieval.

FTP Transfer	In Data Synchronization Server, a method of transferring packets between sites using an FTP site.

G

Global	Any setting that is universally referenced. In Data Synchronization Server, any setting that will be used as a default for all sites, unless otherwise specified. See also: *Linked Remote Site*.
Global Options	Options within the Data Synchronization Server program that allow you to create scripts and file sets, and establish default security and preferences. Items defined in the Global Options area are used in various other areas throughout Data Synchronization Server.
Global Preferences	See: *DB Preferences*

I

Inbound Synchronization	The process of synchronizing incoming information into the current installation of TeleMagic. Compare: *Outbound Synchronization*. See also: *Synchronization*.
Inbox	A directory created by the Data Synchronization Server program to contain the incoming packets of information to be synchronized to the local installation. The packets in an inbox contain changes transferred from another site that need to be incorporated into the current installation. Compare: *Outbox*. See also: *Packet*

Initialization A special type of synchronization that allows you to prepare the databases and certain areas of security of a remote installation for synchronization. It also allows you to transfer data to your remote sites that would not ordinarily be a part of standard synchronization (such as scripts and file sets).

Initialization Preferences Settings which allow you to specify exactly what structural and other changes should be included in an initialization packet. See also: *Initialization*

Installation A unique copy of TeleMagic. Each installation of TeleMagic used with Data Synchronization Server is a site. (Also used to refer to the process of installing software.) See also: *Site*.

L

Laptop A portable computer that can contain a remote installation of TeleMagic that may need to be synchronized with the central installation. Compare: *Satellite Office*. See also: *Central Site* and *Remote Site*.

Linked Remote Site A site that uses the Global Preference settings. Compare: *Unlinked Remote Site*. See also: *Global* and *DB Preferences*.

M

Master Template User A user created in TeleMagic and assigned a full set of preferences. You can select a Master Template User for the purpose of using those preferences as defaults for new users being added through Data Synchronization Server.

Modem A peripheral device that can link your computer to other computers using telephone lines. In Data Synchronization Server, a modem can be used to transfer packets to other sites.

O

OLE Fields Object Linking and Embedding. The ability to access data (such as spreadsheets or graphics) in an application other than the one in which it was created.

Options See *Global Options*

Outbound Synchronization The procedure of processing changes made to the current installation of TeleMagic for distribution to additional sites. Compare: *Inbound Synchronization.* See also: *Synchronization.*

Outbox The directory created by the Data Synchronization Server program where outgoing packets of transaction records are placed. The packets in an outbox contain the latest changes made to a database. Compare: *Inbox.*

P

Packets Compressed files containing all of the information that needs to be synchronized into a site. Packets can include transactions, database files, contact information, activities, etc.

Process Mode — The mode Data Synchronization Server enters during the synchronization procedure. During processing, information from other sites can be synchronized to the current installation, and changes to the current installation can be placed into packets to be sent to other sites. (Only the central and satellite installations process multiple sites. Remote sites only synchronize with the central or a satellite installation.) See also: *Synchronization*

Programs Directory — The directory which contains the TeleMagic program files (such as DSSERVER.EXE). This directory is named \PROGRAMS. See also: *Main Directory*.

R

Record Level Synchronization — A type of synchronization performed by many database synchronization programs. If any field in a record has changed, the entire record is overwritten, potentially resulting in unwanted changes. Data Synchronization Server *does not* use record level synchronization. Compare: *Field Level Synchronization*.

Remote 'Everyone' Group — See: *Everyone Security Group*.

Remote Site — Any installation, other than the central or a satellite site, which is included in synchronization. Compare: *Central Site* and *Satellite Site*.

Remote Site's Central User List — See: *Central User List*

Remote User — A user at a remote site. Remote users may or may not also exist at the central site. See also: *Remote Site* and *Central Site*.

S

Satellite Office
A remote business location. Generally used to refer to an office containing an installation of TeleMagic that needs to be synchronized with the central site. Compare: *Laptop*. See also: *Central Site, Remote Site,* and *Satellite Site*.

Satellite Server
See: *Satellite Site*

Satellite Site
An installation of TeleMagic which synchronizes with both the central and its own remote sites. Compare: *Central Site* and *Remote Site*.

Script
A series of instructions allowing you to automatically perform various types of functions related to synchronization. Each part of a script will proceed automatically at a specified time once the script has been launched.

Security Group
A defined group of users with specific security settings. Used in Data Synchronization Server to refer to the actual security settings.

Server
A device used by the central site to process packets during synchronization.

Server ID
A three-character code identifying a particular server.

Site
A location where a TeleMagic installation has been set up and is used with Data Synchronization Server. See also: *Remote Site* and *Central Site*.

Site Database

A setup option in the central site that allows you to select specific databases to be included in synchronization for a particular site, bypassing the databases that have been set up as global defaults. See also: *Global, Site DB Preferences,* and *Unlinked Remote Site*.

Site DB Preferences

Preference settings that allow you to control what information from each database is synchronized for a particular site. Sites for which site specific preferences have been set will no longer read the global defaults. See also: *Global* and *Site Database*.

Site ID

A three-character code used to identify a site in Data Synchronization Server. Data Synchronization Server will synchronize this Site ID to the installation's System ID on initialization, if the two do not already match. See also: *System ID*.

Site Initialization

See: *Initialization*.

Site Preferences

A set of preferences that controls how a site is synchronized. Site preferences include such things as the date format in use at the site and whether or not e-mail and activities are synchronized to the site.

Source Field

The field in which an edit was originally made. This edit can then be sent out from the source to other sites through synchronization. Compare: *Target Field*.

Supervisor Group

A security group that has full access to all areas of TeleMagic.

Synchronization The process of updating changes made in one installation of TeleMagic to another installation. In Data Synchronization Server, synchronization consists of processing incoming packets and creating outgoing packets of changes for distribution to sites. See also: *Installation, Packets, Process Mode,* and *Site.*

System ID A three-character code identifying and distinguishing the installation of TeleMagic at a site. See also: *Site ID.*

T

Target Field A field for which there is a transaction record created from a change in another installation. Data Synchronization Server will locate this target field during synchronization and determine if the updated information should be placed into it (according to the validations you have set up) . See also: *Transaction Record, Field Rules* and *Source Field.*

TeleMagic Root Directory The directory under which all TeleMagic directories and files are located. This directory is named \TM by default.

Transport Options A setup option in the central, satellite, and remote sites that allows you to configure packet transfer via FTP or TeleMagic Internet Mail.

Transaction File A file that holds all of the transaction records created for a specific site. This file will be condensed into a packet during the processing of the site's outbox. See also: *Transaction Record*.

Transaction Record A record of a change made to a contact field, an activity, or e-mail that needs to be synchronized. The transaction records will be placed into a transaction file and included in the outgoing packet(s) when the site is processed. See also: *Transaction File*.

U

Unlinked Remote Site A site that has been set up with its own database preferences and does not use the Global settings. Compare: *Global* and *Linked Remote Site.*

User List A list of users belonging to a certain site.

V

Variable A named storage location for specific information. Used in Data Synchronization Server to create expressions for field rules. See also: *Field Rules* and *Expression*.

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