**MPIC 2.3**

# Installation and User's Guide

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**Product**

MPIC

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# Table of Contents

# Chapter 1 - MPIC

## Overview

In this chapter you will learn the basics of MPIC, including what it is and what it is designed to do. In addition, you will learn the prerequisites for using the application, as well as the components that make up the application.

## In this chapter

## Hardware requirements

| | |
|---|---|
| CPU (Processor) | Equivalent of Intel Quad Core Xeon 1.6GHz |
| RAM (Memory) | 8GB |
| Storage Array Type | RAID-1 |
| Optical Drive | DVD-ROM |
| Network Card (NIC) | 1Gbps (cannot be a teamed network card) |
| Hard Drive | At least 30GB |

## Software requirements

For CGM MEDISOFT, eMDs recommends that you install it on the same computer as your Advantage Database Server. It does not need to be installed on any workstations. Nor does it have to be dedicated.

You may use a virtual server with MPIC.

# With Practice Partner 11.2 and newer

- Windows Server 2012 and R2

- Windows Server 2016 Standard, Datacenter, Essentials

- Windows Server 2019 Standard

- Medisoft 19 SP1 or newer

- Lytec 2014 SP1 or newer

- SQL Server Express 2012 or 2017*

*SQL server express is NOT installed with MPIC. For CGM LYTEC, MPIC will use the version of SQL Server Express or Standard that CGM LYTEC is using. For CGM MEDISOFT, you will need to download SQL Server Express. You can download version 2017 from here:

https://www.microsoft.com/en-us/sql-server/sql-server-2017

For basic steps to install SQL Server Express 2017, see .

# New installations of MPIC

Complete the following tasks to install MPIC.

| Task | Description |
|------|-------------|
| Install other applications. | Install any software applications that you want to integrate, such as CGM MEDISOFT Clinical, CGM LYTEC MD, or Practice Partner. |
| | CGM MEDISOFT users: Be sure to install SQL Server Express first. See above for the link to download SQL Server Express. |
| Set Administrator rights. | Make sure you have Administrator rights to the computer on which you are installing MPIC. |
| Review hardware and software requirements. | Review the hardware and software requirements to ensure that your system meets the requirements. |
| Install MPIC 2.3. | Install MPIC using the instructions beginning with "Installing and upgrading MPIC" on page 9. |
| Configure your connection. | Configure MPIC for your connection.<br>• For CGM MEDISOFT Clinical and CGM LYTEC MD, see the instructions beginning with "Using the MPIC Control Panel" on page 21. |

# Upgrading MPIC

## From Release 2.0 and earlier

Complete the tasks below to upgrade from Release 2.0 and earlier.

| Task | Description |
| --- | --- |
| Capture existing settings. | 1. Launch the MPIC Control Panel.<br><br>2. Click the **Settings** button, and take note of the values in the fields.<br><br>3. Click the **EMR Settings** button. Take note of the values in the fields of the EMR Settings screen. |
| Uninstall MPIC using Add/Remove Programs. | 1. Click Start, point to All Programs, and click Control Panel.<br><br>2. Click Uninstall a program.<br><br>3. Select MPIC.<br><br>You do NOT need to uninstall Mirth Connect. |
| Download and install SQL Server 2012 or 2017, if necessary. | Upgrade your version of SQL server if necessary. You must upgrade if you are using version 2008 or older. See above for the link to download SQL Server 2017. |
| Install MPIC 2.3. | Install MPIC using the instructions beginning with "Installing and upgrading MPIC" on page 9. |
| Create Database. | Create the database for MPIC using the instructions beginning with "Database creation" on page 12.<br><br>IMPORTANT: You MUST recreate your database. Your old database may appear to be present and may appear to work. However, it is using old channels for Mirth. |
| Launch Mirth and restore configuration. | Launch Mirth using the instructions beginning with "Configuring Mirth" on page 15.<br><br>IMPORTANT: Although you will not need to create a user for Mirth, you MUST restore the default configurations for Mirth. This will ensure that you are using the newest channels. |
| Reconfigure MPIC using the settings you noted in "Capture Existing Settings" above. | Reconfigure MPIC with your previous settings using the instructions beginning with "Creating a connection" on page 25. |

# From Release 2.1

Complete the tasks below to upgrade from Release 2.1.

| Task | Description |
|------|-------------|
| Uninstall MPIC using Add/Remove Programs. | 1. Click Start, point to All Programs, and click Control Panel.<br>2. Click Uninstall a program.<br>3. Select MPIC.<br><br>You do NOT need to uninstall Mirth Connect. |
| Download and install SQL Server 2012 or 2017, if necessary. | Upgrade your version of SQL server if necessary. You must upgrade if you are using version 2008 or older. See above for the link to download SQL Server 2017. |
| Install MPIC 2.3. | Install MPIC using the instructions beginning with "Installing and upgrading MPIC" on page 9. |

# From Release 2.2

Complete the tasks below to upgrade from Release 2.2.

Note: If you are using MPIC with CGM MEDISOFT, you do not need to upgrade!

| Task | Description |
|------|-------------|
| Uninstall MPIC using Add/Remove Programs. | 1. Click Start, point to All Programs, and click Control Panel.<br>2. Click Uninstall a program.<br>3. Select MPIC.<br><br>You do NOT need to uninstall Mirth Connect. |
| Download and install SQL Server 2012 or 2017, if necessary. | Upgrade your version of SQL server if necessary. You must upgrade if you are using version 2008 or older. See above for the link to download SQL Server 2017. |
| Install MPIC 2.3. | Install MPIC using the instructions beginning with "Installing and upgrading MPIC" on page 9. |

# Components that are installed

MPIC installs several components that it uses to connect eMDs solutions. MPIC will not reinstall any components that are already installed. The first four components were developed and are supported by external vendors. MPIC will not uninstall or update these components and eMDs is not responsible for their support. The final component is updated by eMDs and is uninstalled if you uninstall MPIC.

| Component | Description |
| --- | --- |
| .NET Framework 4.0 | This is a software framework designed by Microsoft that contains many libraries of files that allow programs to communicate with one another. |
| Java Runtime | This program contains many files that allow websites and other applications to function correctly. Java must be installed so that Mirth Connect will run correctly. For more information on Mirth Connect, see "Mirth Connect" on page 119.<br><br>Version 7.0.170 is installed with MPIC. This is the supported version of Java. Do not upgrade from this version. For steps to disable automatic updates of Java, see "Java Upgrades" on page 10. |
| Mirth Connect | This program contains the files that tell the system what data to transmit.<br><br>Version 2.2.1.5861 is installed with MPIC. This is the supported version of Mirth Connect. Do NOT upgrade from this version. |
| MPIC Control Panel | This application starts and stops the MPIC service. |
| MPIC Service | This program does all of the transfer of data from application to application. It will run all of the time once it is started. Also, it will monitor any changes to data and handle the transfer. |

# Currently-supported connections

Currently-supported connections for MPIC are as follows:

| Connection | Direction of Data Flow | More Information |
| --- | --- | --- |
| CGM MEDISOFT to CGM MEDISOFT Clinical/Practice Partner | Bi-directional | To set up this connection, see "Configuring a connection" on page 25. |
| CGM LYTEC to CGM LYTEC MD/Practice Partner | Bi-directional | To set up this connection, see "Configuring a connection" on page 25. |

# Chapter 2 - Installing and Configuring MPIC

This chapter discusses how to install, configure, and start MPIC.

## In this chapter

| Topic | See page |
|-------|----------|
| Installing and upgrading MPIC | 9 |
| Configuration and launching | 12 |

# Installing and upgrading MPIC

Note: You must have administrator rights on the computer where MPIC is installed to open and use the MPIC Control Panel.

The steps below are the same if you are upgrading or completing a new install. If you are upgrading, refer to "Upgrading MPIC" on page 4 to ensure you have completed all necessary steps before proceeding to installation.

## SQL Server Express Install (CGM MEDISOFT only)

Be sure to install SQL Server Express first. You can find the download under "Software requirements" on page 1.

Basic steps to installing SQL Server Express can be found at "Installing SQL Server Express" on page 87.

Once SQL Server Express is installed, verify that TCP/IP is enabled. To do so,

1. Launch Sql Server Configuration Manager.

2. Open the Sql Server Network Configuration settings.

3. Click Protocols for MPIC.

4. Verify that TCP/IP is enabled. If not, double-click the Disabled status for TCP/IP. The TCP/IP Properties screen opens.

5. For the Enabled setting, click No and change it to Yes.

6. Click OK and then OK on the Notice.

7. Stop and restart the SQL Server (MPIC) service.

## Installing MPIC

The installation will load the components that MPIC needs to run (see "Components that are installed" on page 6 for more information).

1. Download and run the appropriate installer from the following table:

| CGM LYTEC | https://supportcenter.emds.com/richmond/articles/ Richmond_VAR_KBA/Lytec-and-Lytec-MD-Download-Links |
|---|---|
| CGM MEDISOFT | https://supportcenter.emds.com/richmond/articles/ Richmond_VAR_KBA/Medisoft-and-Medisoft-Clinical-Download-Links |

2. The MPIC Setup screen appears.

3. Select the **I agree to the license terms and conditions** check box. if you already have applications like .NET Framework 4.0 installed, you might not see all of the screens in this installation.

4. Click the **Install** button. Allow the installer to complete its operation. The Setup Successful screen appears.

5. Click the **Close** button.

# Java Upgrades

Version 7.0.170 is installed with MPIC. This is the supported version of Java. Do not upgrade from this version. Follow these steps to disable automatic updates of Java:

If you are running a 64-bit operating system, you may not see an Update tab. In this case, no action is necessary because Java does not support automatic updates for your system.

1. Click Start and then Control Panel. The Control Panel appears.

2. Click Programs. The Programs screen appears.

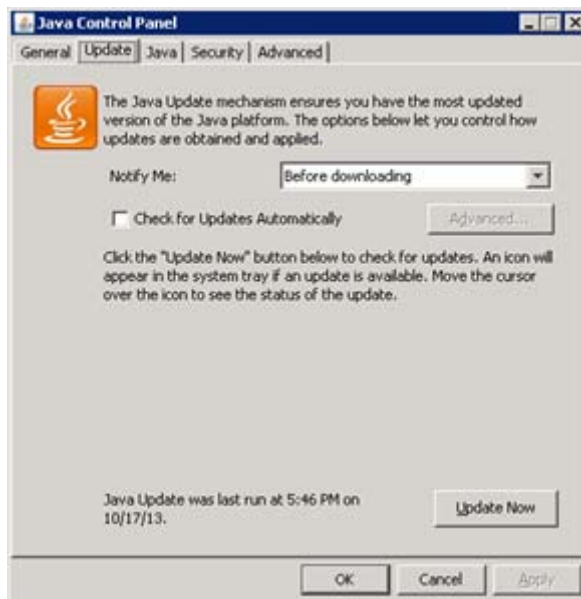3. Click the Java icon. The Java Control Panel appears.

4. Click the Update tab.



*Figure 1.  Java Control Panel screen*

5. Clear the check box for Check for Updates automatically.

6. Click the **OK** button.

7. Close the Control Panel.

# Configuration and launching

Perform the following steps if you are installing MPIC for the first time, OR if you are upgrading from release 2.0.

If you are upgrading from release 2.1 or 2.2 your installation is complete. Make sure that the MPIC service has restarted.

## Database creation

1. On the desktop, double-click the MPIC icon. You <u>may</u> see the following message. If you see this message, click the **OK** button to close it.
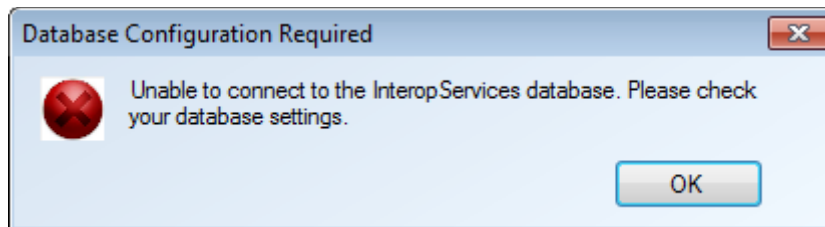


*Figure 2.  Error message*

If you do not see this message, start MPIC and click the Database Settings button on the MPIC Control Panel.

2. Click the **OK** button. The MPIC Database Settings screen appears. For more information on this screen, see "MPIC Database Settings screen" on page 49.
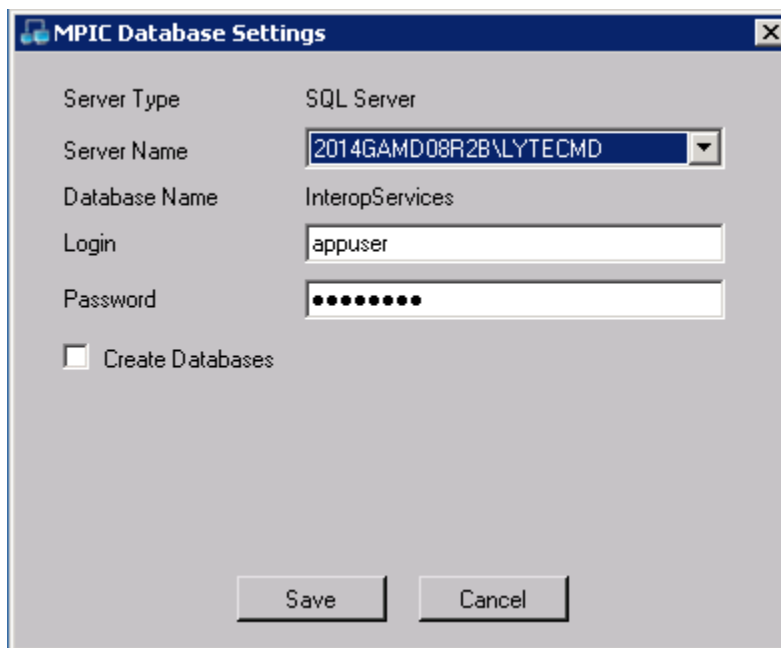


*Figure 3.  MPIC Database Settings screen*

This will display any existing SQL instances in the Server Name field.

3. Select the appropriate SQL instance in the Server Name field.

    •If you are using CGM LYTEC, the existing CGM LYTEC instance (LYTECMD) will appear in the Server Name drop-down field.

    •If you are using CGM MEDISOFT, you will see the MPIC instance in the Server Name drop-down field.

4. Enter the Login and Password. The default login is **appuser** and the password is **password**.

5. Select the Create Databases check box.
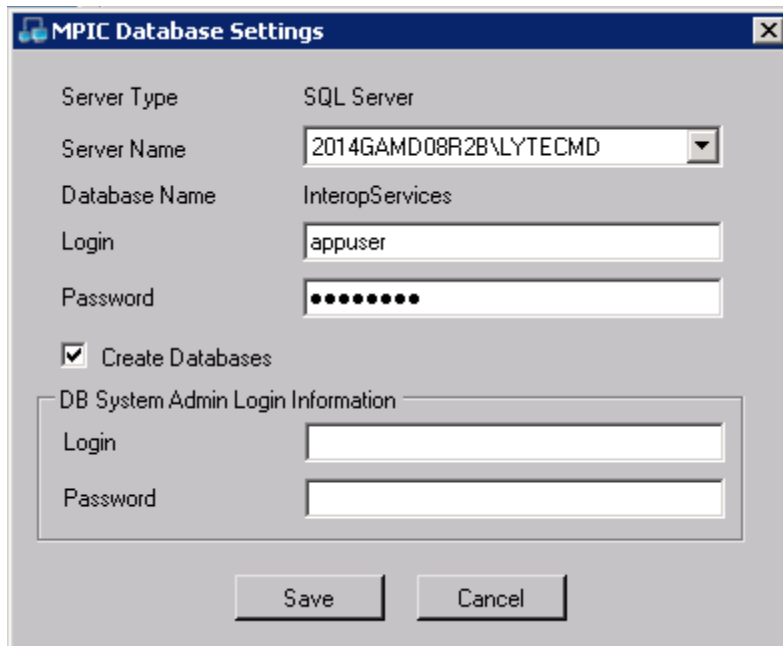


*Figure 4. MPIC Database Settings screen*

6. Enter the Login and Password.

• If you are using CGM LYTEC, use the login and password that you would use on the Specify Default SQL Credentials screen.

• If you selected the MPIC instance, the default login is sa and the password is $Mpic2012.

7. Click the **Save** button. You will see a console screen appear briefly. You will see a console screen appear briefly. The Information screen appears, showing that your database was created.



*Figure 5. Information screen*

8.  Click the **OK** button. The Settings Saved screen appears, showing that the MPIC database settings were saved.
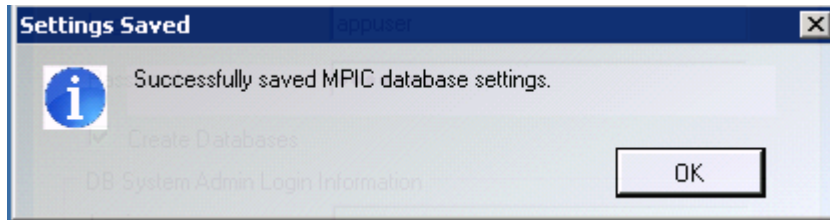


*Figure 6.  Settings Saved screen*

9.  Click the **OK** button. The Settings Saved screen appears, showing that the Mirth database settings were saved.
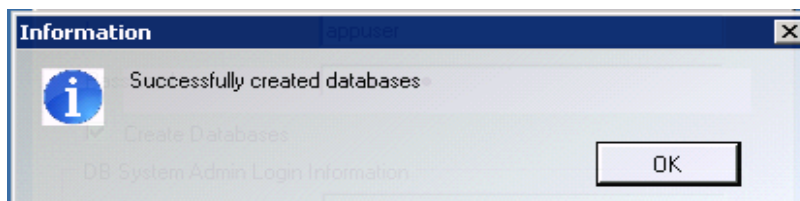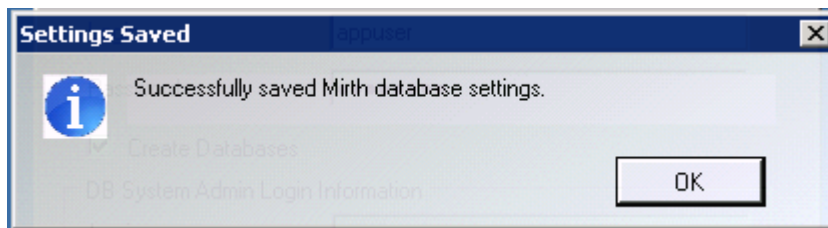


*Figure 7.  Settings Saved screen*

10. Click the **OK** button. The MPIC Control Panel appears. For more information on the Control Panel and the buttons that are available, see "The MPIC Control Panel" on page 21.
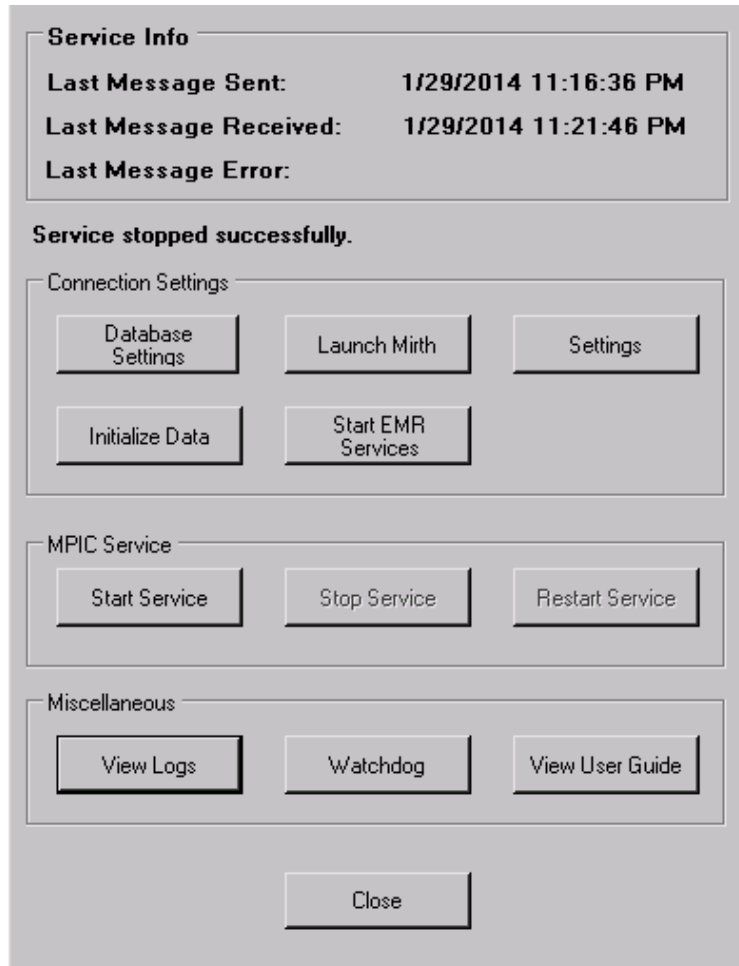


*Figure 8.  MPIC Control Panel*

# Configuring Mirth

MPIC installs the Mirth channels that it requires to run. Do not edit them.

1. Click the **Launch Mirth** button on the MPIC Control panel (see *Figure* 8 on page 15). This will start the Mirth Connect Server Manager application.The icon  appears in the System Tray.

2. Right-click the Mirth Connect icon in the System Tray and select **Launch Administrator.** A download screen appears. When it is complete, you will see the Mirth Connect Administrator Login screen.

If you receive a message to upgrade Java, click Later. Do NOT upgrade the version of Java.



*Figure 9.  Java Update Needed screen*

3. Enter **admin** for both the Username and Password.
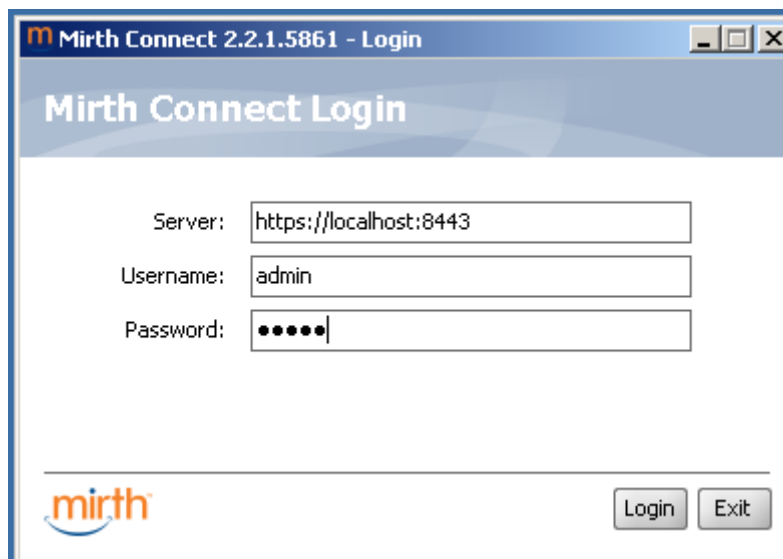


*Figure 10.  Mirth Connect Administrator Login screen*

4. Click the **Login** button.

5.  On the Welcome to Mirth Connect screen, enter **admin** in the Username, New Password, and Confirm New Password fields. Do NOT change the Username or Password. Fields with an * are required.



*Figure 11.  Welcome to Mirth Connect screen*

6.  Click the **Finish** button. The Dashboard screen appears.
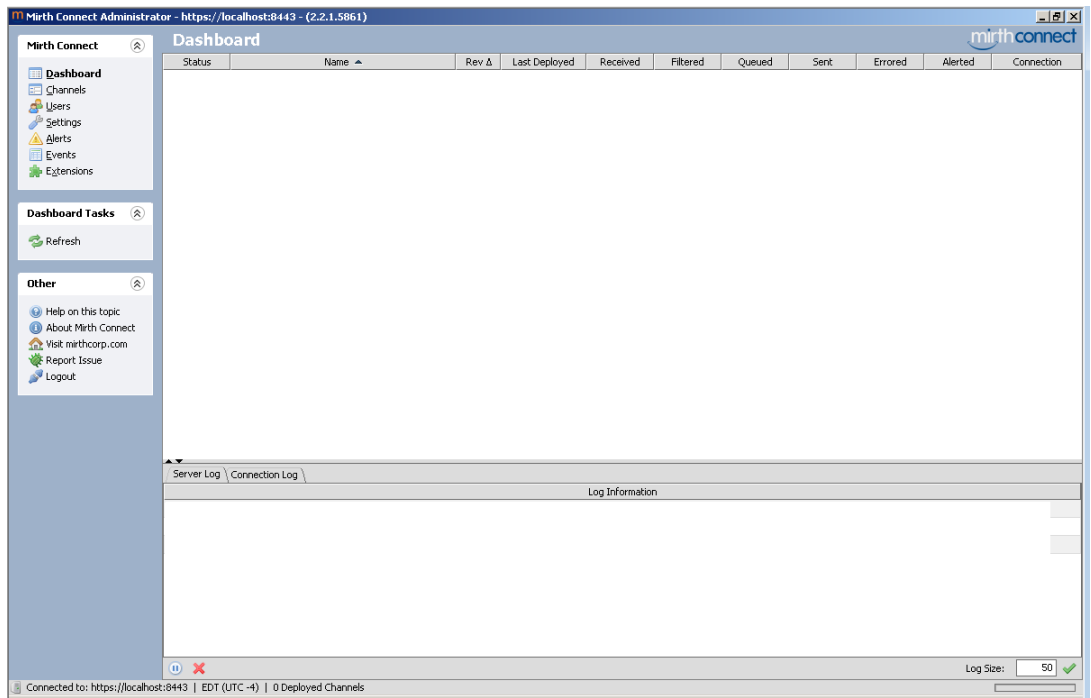


*Figure 12.  Mirth Connect Dashboard*

7. Click **Settings**. The Settings screen appears.
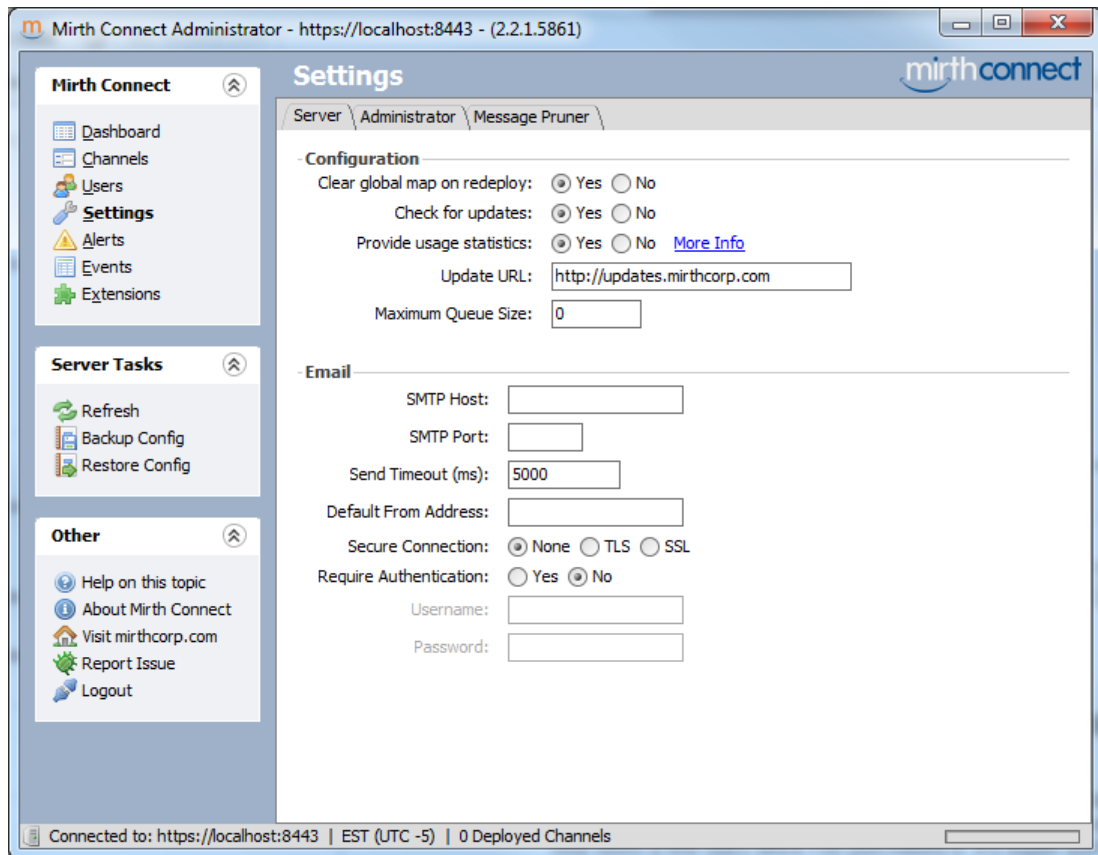


*Figure 13.  Mirth Settings screen*

8. Click **Restore Config** in the Server Tasks section of the screen. The Open screen appears.

Warning: if you are upgrading and have custom channels created, export these channels before restoring the default configurations. Restoring the defaults will overwrite any existing channels. After you restore the defaults, import your custom channels.

9. Navigate to the **C:\Program Files\Mckesson\Mckesson Practice Interface Center\Mirth** folder.

10. Highlight defaultconfig.xml.
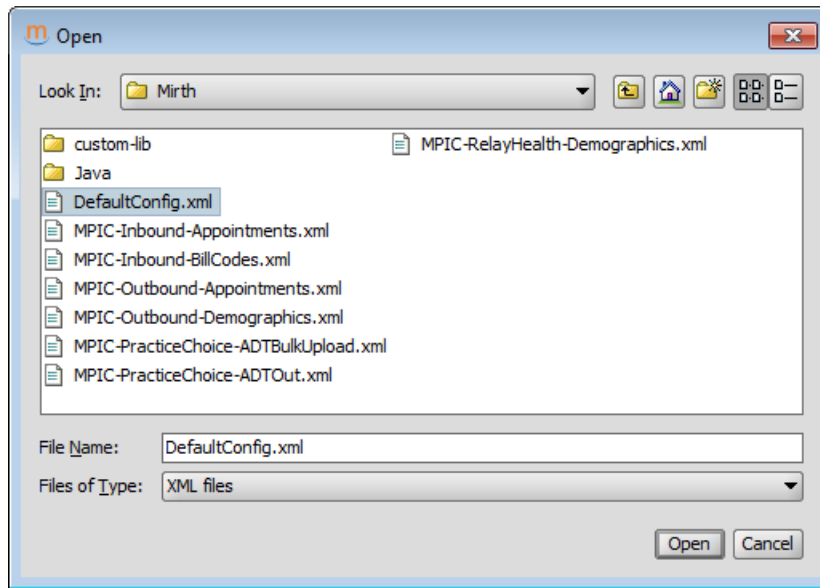


*Figure 14.  Open screen*

11. Click the **Open** button.

12. Click the **Yes** button on the Select an Option screen.Close Mirth Connect Manager.

13. Verify that HL7 triggers are enabled in CGM MEDISOFT or CGM LYTEC.

| If you are using... | follow these steps... |
|---|---|
| CGM MEDISOFT | 1. On the File menu, click **Program Options**. The Program Options screen appears.<br><br>2. Click the General tab.<br><br>3. Verify that the Enable HL7 Triggers check box is selected on the General tab. |
| CGM LYTEC | 1. On the Admin menu, click **Preferences**. The Preferences screen appears.<br><br>2. Click the General tab.<br><br>3. Verify that the HL7 Trigger Enable check box is selected on the General tab. |

15. You must first understand the MPIC Control Panel buttons and their functionality. To continue the installation and configuration steps, proceed to to complete the configuration.

# Chapter 3 - Using the MPIC Control Panel

Use the MPIC Control Panel to start and stop the MPIC service, create a new connection, change existing connections, and view any errors that occur.

## In this chapter

# The MPIC Control Panel

**To view the MPIC Control Panel:**

- On the Desktop, double-click the MPIC icon. The MPIC Control Panel appears.
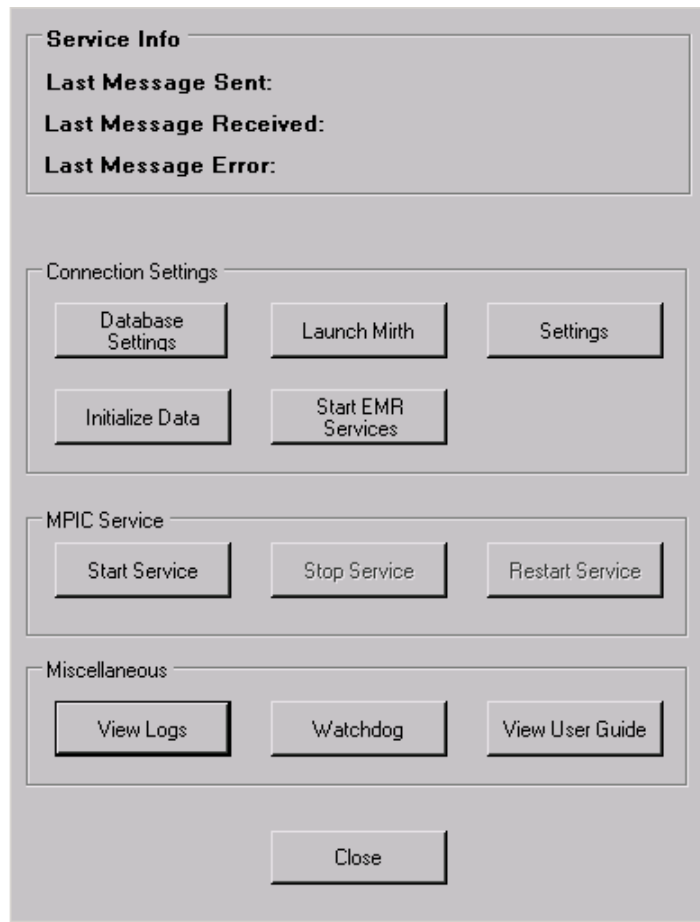


*Figure 15.  MPIC Control Panel*

The following table summarizes the fields and buttons that are available.

| Field/Button/Link | Description |
|---|---|
| Last Message Sent | This reflects when the last message (data transfer) was sent from the practice management application to the EMRs for all connections. If messages have not been sent for some time, there is likely an error. You can use the logs to identify and correct the error. For more information on the logs, see "Viewing logs" on page 37. |
| Last Message Received | This reflects when the last message (data transfer) was received from the EMRs by the practice management application for all connections. If messages have not been received for some time, there is likely an error. You can use the logs to identify and correct the error. For more information on the logs, see "Viewing logs" on page 37. |

| Field/Button/Link | Description |
|---|---|
| Last Message Error | This reflects when the last error message occurred for all connections. Types of errors include lost connectivity in the network and invalid data. If there is an error, use the logs to identify the error so you can fix it. For more information on the logs, see "Viewing logs" on page 37. |
| Database Settings | Click to open the Database Settings screen. Use this screen to create a new SQL database for MPIC to use. CGM LYTEC users may use this screen to use the existing CGM LYTEC database for MPIC. For more information, see "MPIC Database Settings screen" on page 49. |
| Launch Mirth | Click to launch the Mirth Connect Server Manager. The icon for this application will appear in the System Tray. For more information on the Mirth Connect Server Manager, see "Configuration and launching" on page 12. |
| Settings | Click to open the Settings screen. For more information on this screen, see "Settings screen" on page 26. |
| | This button will be disabled if there is no MPIC Database. You will create this database using the MPIC Database Settings screen. For more information, see "MPIC Database Settings screen" on page 49. |
| Initialize Data | Click to open the Initialize Data screen on which you can change the settings for the types of practice records that will be transferred when you create the connection and perform the initial data transfer. For more information on this screen, see "Initialize Data screen" on page 31. |
| | This button will be disabled until there is a connection type. |
| | If you are upgrading from an earlier version of MPIC and MPIC is successfully transmitting data, you do NOT need to perform another initialize data for the practice. |
| Start EMR Services | Click to launch the Demographics/Scheduling Interface, which imports demographic and appointment scheduling data from the practice management system to the EMR. as well as the BillCodes application. If these applications are already running, MPIC will stop them and then restart them. |
| | Clicking this button will start the interface only for the computer on which MPIC is installed. If you have connections to remote servers, you must manually start the EMR services from those servers. |
| | This button will not launch either application until you have created a connection, In addition, it will be disabled unless your connection is for CGM MEDISOFT Clinical or CGM LYTEC MD. |

| Field/Button/Link | Description |
|---|---|
| Start Service | Click to start the MPIC service for all connections. When the service is started, data transmission between applications will begin. Data will be transmitted behind the scenes. |
| | Once the service is started, this button will be disabled. |
| Stop Service | Click to stop the service for all connections. This will stop data transmission. |
| Restart Service | Click to restart the service after you manually stop it. |
| | If you make changes to the settings while the service is running, the service will automatically stop and restart when you are finished making changes. |
| View Logs | Click to open the View Logs screen. For more information on the logs, see "Viewing logs" on page 37. |
| Watchdog | This feature is no longer supported. |
| View User Guide | Click to view the MPIC Installation and User's Guide. |
| | You must have Adobe Reader installed to view the guide. |
| Close | Click to close the MPIC Control Panel screen. |

# Configuring a connection

Initial configuration of an interface connection involves several steps: create the connection, select applications and types of data to transfer, and start the service. You can create multiple connections with MPIC. Use the table as an overview of the steps to take.

| Action | Processes to complete |
|---|---|
| Create an interface connection | Create the connection (see "Creating a connection" on page 25)<br><br>Initialize Data (see "Initializing data" on page 30). |
| Update an existing interface connection | Click Settings and update the connection (see "Creating a connection" on page 25.<br><br>The MPIC service will stop and restart automatically. |
| Add another connection | Click Settings and then the New button. Enter a new Connection Name and then complete the fields on the Settings screen (see "Adding another connection" on page 35). |
| Update Xfire, "library" files (providers, facilities, procedure codes, diagnosis codes)<br><br>Initial load of patients and appointments | Initialize Data (see "Initializing data" on page 30). |

## Creating a connection

Use these steps to create a connection, specifying the applications for the interface, entering basic practice information, and selecting what types of data will be transmitted behind the scenes.

1. Double-click the MPIC icon on the desktop. The MPIC Control Panel appears.

2. Click the **Settings** button. The Settings screen appears. Initially, the screen will be blank. *Figure* 16 on page 26 shows you a screen configured for CGM MEDISOFT Clinical.



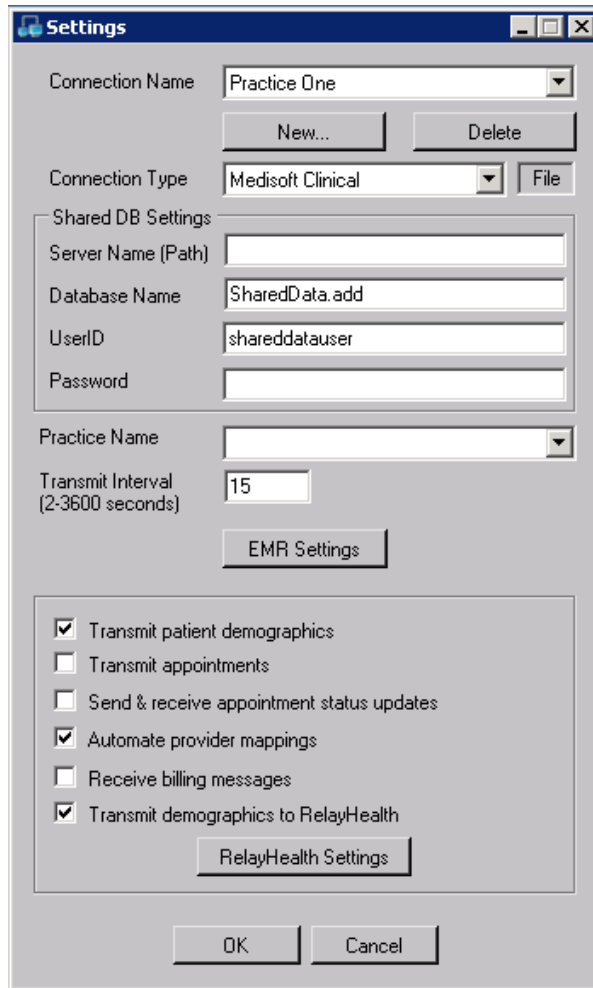*Figure 16.  Settings screen*

| Field/Button/Link | Description |
|---|---|
| Connection Name | Use this drop-down list to select a connection. Connection Names are added when you click the New button and add a new connection. |
| New | Click this button to open the Create New Connection screen on which you can add a new connection. For more information, see "Create New Connection screen" on page 45. |

| Field/Button/Link | Description |
|---|---|
| Delete | Select this button to delete the existing connection and all background information on the connection. You will receive a warning prior to the deletion of the connection.<br><br>This button will be disabled if there is no existing connection.<br><br>Note: You must click the OK button on the Settings screen to complete the deletion of the connection. |
| Connection Type | Select a connection type from the drop-down list. The list will include all types currently available. What you select here depends on what two applications you want to connect. The connection contains hard-coded information specifically designed to enable the two applications to transmit data to one another.<br><br>Depending on your selection here, the options on the Settings screen will change. Some check boxes will be hidden. |
| Server Name (Path) | Enter the path of the server that MPIC is installed on. |
| Database Name | Use this to enter the name of the database. |
| User ID | Enter the user ID for the administrative database. |
| Password | Enter the user Password for the administrative database. The default password for CGM MEDISOFT is AndPassword. |
| Practice Name | Select the appropriate practice from the drop-down list. |
| Transmit Interval (2-3600 seconds) | Use these fields to specify the amount of time in between transmissions of data. The default, recommended value is 30. The transmitting features use this option but the syncing features do not. |
| EMR Settings | Use this to open the Folders screen. You must set up folders before you can perform a sync. For more information, see "Folders screen" on page 45. |
| Transmit patient demographics | Select this check box if you want to transmit demographic information for new patients or changed information from the practice management system to the EMR. This includes all information that is common to the practice management system and EMR.<br><br>For more information on what data is transmitted for each connection, see "Transmitted Information" on page 51.<br><br>Selecting this check box will enable the transmission of patient demographics behind the scenes after you click Start Services on the MPIC Control Panel. Before you start the service, perform the initial synchronization (load) on the Initialize Data screen (see "Initialize Data screen" on page 31). |

| Field/Button/Link | Description |
|---|---|
| Transmit appointments | Select this check box to transmit appointment information from the practice management system to the EMR. This includes all pertinent information for the appointment, such as date, time, and length.<br><br>Selecting this check box will enable the transmission of appointments behind the scenes after you click Start Services on the MPIC Control Panel. Before you start the service, perform the initial synchronization (load) on the Initialize Data screen (see "Initialize Data screen" on page 31). |
| Send and receive appointment status updates | Select this check box if you want to transmit changes to the status of appointments that are made in your applications. This is a bi-directional transfer. |
| Automate provider mappings | Select this check box if your providers do not exist in the EMR and you want their information transmitted to the EMR.<br><br>CLEAR this check box if either of the following situations exist:<br><br>• You have a one-to-many relationship for your providers. That is, you have a single record for a particular provider in the practice management system but have more than one record for the same provider in the EMR (for instance, that provider works out of several locations).<br><br>If you enable this feature and use it in this situation, you jeopardize accuracy of appointments sent from the practice management system to the EMR, the provider associated with a patient, and possibly the provider assigned to charges coming in from the EMR.<br><br>For more information on provider mapping, see "Automate Provider Mapping" on page 81. |
| Receive billing messages | Select this check box to receive transactions/charges from the EMR application. For CGM MEDISOFT, transactions received will appear on the Unprocessed Charges screen. For CGM LYTEC, charges received will appear on the Pending Transactions screen. |

| Field/Button/Link | Description |
|---|---|
| Transmit Demographics to RelayHealth | Select this check box if you are going to use MPIC to send demographic information for new patients or edited patient records to RelayHealth. |
| | When you select this check box, the RelayHealth Settings button appears. |
| | You can set up the RelayHealth connection at the same time that you create your connection for CGM MEDISOFT or CGM LYTEC or you can return to this screen later to set it up. |
| | Select this option ONLY if you are setting up a connection to RelayHealth in addition to setting up a connection for CGM MEDISOFT Clinical/CGM LYTEC MD. If you are setting up a RelayHealth connection only, use the option in the Connection Type field. |
| RelayHealth Settings | Use this button to open the RelayHealth Settings screen. For more information, see "RelayHealth Settings screen" on page 47. |
| | This button appears only if you selected Transmit Demographics to RelayHealth. |
| OK | Use this to save changes to the Settings screen and close the screen. |
| Cancel | Use this to cancel any changes made to the Settings screen. |

3. Click the **New** button. The Create New Connection screen appears.



*Figure 17.  Create New Connection screen*

4. Enter the name for your new connection.

5. Click the **OK** button.

6. On the Settings screen, select a connection type option from the drop-down menu. The interface contains various default settings used for the starting point for a connection. These settings help establish settings for one or more connections. When you select the interface many of the fields on this screen will be filled automatically.

   Depending on your selection here, the fields and options on the Setting screen will change.

7. Complete the other fields on this screen as necessary, making sure that you select the correct Practice Name.

8. If you are setting up a connection to RelayHealth at this time, select the Transmit Demographics to RelayHealth check box.

9. If you are setting up a connection to RelayHealth at this time, click the **RelayHealth Settings** button and enter the information you received from RelayHealth on the RelayHealth Settings screen. For more information, see "RelayHealth Settings screen" on page 47. Make sure you enter the correct Source Provider IDs and RelayHealth Provider IDs for each of your providers.You can find your provider IDs in CGM MEDISOFT or CGM LYTEC and RelayHealth will provide your Relay Health Provider IDs when you sign up.

10. Click the **OK** button.

# Initializing data

If you are upgrading from an earlier version of MPIC and MPIC is successfully transmitting data, you do NOT need to perform another initialize data for the practice.

Use these steps to perform an initial synchronization of up to four different types of records, as well as an initial "load" of patients and appointments for a new EMR.

This screen is only for an initial data transfer or occasional transfers of data if you add new providers, facilities, procedure codes, or diagnosis codes. In addition, it is only for an initial, one time transfer of patient and/or appointment records from the practice management system to the EMR. Once this initial "load" is made, MPIC will automatically transfer appointments and patients behind the scenes after you click Start Services on the MPIC Control Panel. Just make sure you have selected the **Transmit patient demographics** and **Transmit appointments** check boxes on the Settings screen (see "Settings screen" on page 26).

1. On the MPIC Control Panel, click the **Initialize Data** button. The Initialize Data screen appears.



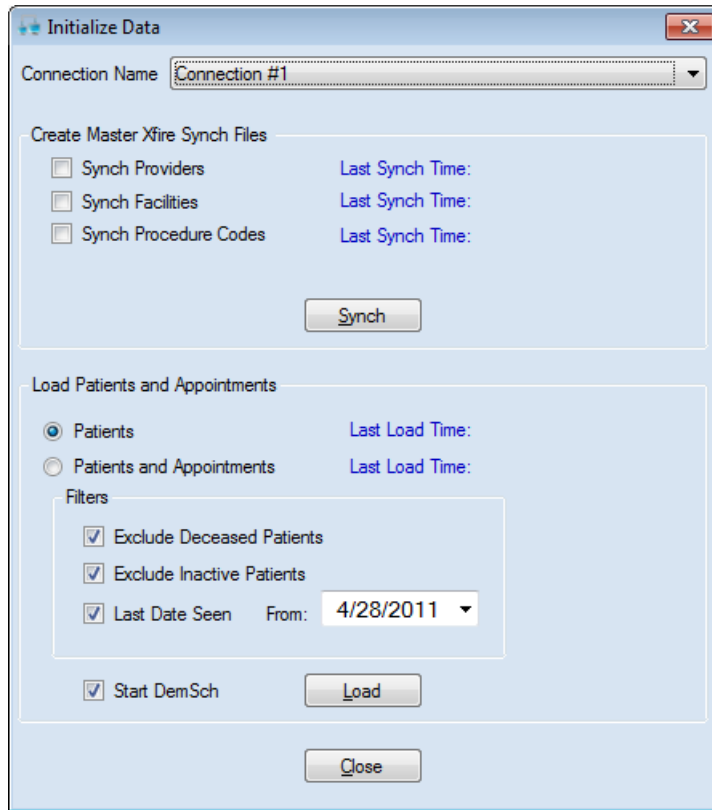*Figure 18.  Initialize Data screen*

| Field/Button/Link | Description |
|---|---|
| Connection Name | Select the connection that you want to synch data for. |
| Synch Providers | Select this check box if you want to send provider information from the practice management application to the EMR. |
| | This is enabled when Automate Provider Mapping is selected on the Settings screen,. When you synch providers, MPIC will attempt to find a provider record in the EMR that matches the one being sent. If it does, it will automatically map the providers. If not, it will create a new provider record in the EMR. |
| | If Automate Provider Mapping is cleared on the Settings screen, you cannot send providers to the EMR and this check box will be disabled. |
| | This field applies only if you are connecting to CGM MEDISOFT Clinical and CGM LYTEC MD. |

| Field/Button/Link | Description |
|---|---|
| Synch Facilities | Select this check box if you want to send facility information from the practice management application to the EMR.<br><br>This field applies only if you are connecting to Practice Partner. |
| Synch Procedure Codes | Select this check box if you want to send procedure code information from the practice management application to the EMR.<br><br>This field applies only if you are connecting to Practice Partner. |
| Last Synch Times | These date and time stamps show the last synch time for all connections for each type of information. |
| Synch | Clicking this will launch XFire Demographics to send the data from the practice management application to the EMR based on the settings you selected. If the folders for this connection are located on a remote server, MPIC will display the Enter Remote Login Information screen and prompt you for credentials for the remote server, and attempt to launch XFire Demographics on the remote server. For more information on the Enter Remote Login Information screen, see "Enter Remote Login Information screen" on page 50.<br><br>Use this only if any of this information has changed in the practice management system and you need to update the EMR.<br><br>The EMR will check each record. If it does not exist in the EMR, it will be added. If it does exist, it will not be duplicated.<br><br>This field applies only if you are connecting to Practice Partner. |
| Patients | Select this button if you want to send the demographic data on patients to your EMR. This will include both active and inactive patients, unless you chose to use the Exclude Inactive Patients filter. |
| Patients and Appointments | Select this button if you want to send all patient and appointment data to your EMR. |
| Exclude Deceased Patients | Select this check box if you want to exclude deceased patients from your initial transfer of data. MPIC will look for a date in the date of death field in the patient's record. If the field is populated, the record will not be transferred to the EMR. |
| Exclude Inactive Patients | Select this check box if you want to exclude patients who have been marked inactive in the practice management application. |

| Field/Button/Link | Description |
|---|---|
| Date Last Seen | Select this check box if you want to limit the transfer of patient records based on the last seen date. The date is based on either the appointment date or the last Date of Service. |
| | If you select this option, enter a date in the From field. |
| From | Specify a beginning appointment date for patient records to transfer. Records of patients who had an appointment after this date will be sent in the initial transfer of data. |
| Start DemSch | Clear this check box if you do not want DemSch to start automatically when you click the Load button. |
| Load | Clicking this will send the patient and/or appointment records to the EMR. |
| | Use Load only to perform an initial "load" of patient and/or appointment data into a new EMR, one that has no patient or appointment records in it. This initial load is one time only. When you start the service, patient and appointment records will be updated behind the scenes. |
| | Note: when you click Load, MPIC will clear the HL7trigger table. |
| Close | Use this to close the Initialize Data screen. Your changes will be saved. |

2. Select the connection you want to initialize data for in the Connection Name field.

3. Select the check boxes for the options in the Create Master Xfire Synch Files section.

4. Click the **Synch** button. An hourglass will appear showing the progress of the sync. When the sync is complete, the Last Synch time fields will be updated.

   This will send the types of data you selected to the EMR. Records that do not exist in the EMR will be added. Those that exist will be updated during the synchronization.

   You must sync providers before loading patients.

5. If the EMR is new and there are no patient or appointment records, select any filters you want to use when the initial transfer of patient and/or appointment data takes place.

6. Select either **Patients** or **Patients and Appointments**.

7. Click the **Load** button. The Send All Records screen appears, showing you the progress in transferring patients and/or appointments.

   When the process is complete, all patients and/or appointments will be sent to the EMR. Depending on the number of patients and appointments, as well as your filter selections, this transmission could take some time. The Last Load Time will be updated on the Initialize Data screen.

   Clicking View Log will open the log. For more information, see "Viewing logs" on page 37.

8. Close the Initialize Data screen.

9. Double-click the MPIC icon on the desktop. The MPIC Control Panel appears.

10. Click **Start Services**. Now, MPIC will continually monitor changes in patient information and appointments and transmit these changes between applications behind the scenes.

# Adding another connection

You can have multiple connections for MPIC, but only one connection per practice. Once you have created your first connection, follow the steps to create additional connections.

1.  Follow the steps for "Configuring Mirth for a Remote Server" on page 85 to set up a user account on the remote server. Since Mirth and MPIC are not installed on the same computer as the server for Practice Partner, you must create this account so that Mirth can access the server.

2.  On the MPIC Control Panel, click the **Settings** button. The Settings screen appears.

3.  Click the **New** button. The Create New Connection screen appears.

4.  Enter a Connection Name.

5.  Click the **OK** button.

6.  Click the **EMR Settings** button. The Folders screen appears.

7.  Be sure to enter unique paths each field. You must enter the UNC path to the server on these fields (for example: \\abcdefg\program files\medisoft\pm).

8.  Click the **OK** button.

9.  Complete the fields on the Settings screen, making sure to select the correct Connection Type and the correct Practice Name.

10. Click the **OK** button.

11. On the MPIC Control Panel, click the **Initialize Data** button. The Initialize Data screen appears.

12. Select the connection and select the check boxes for the types of data you want to synch.

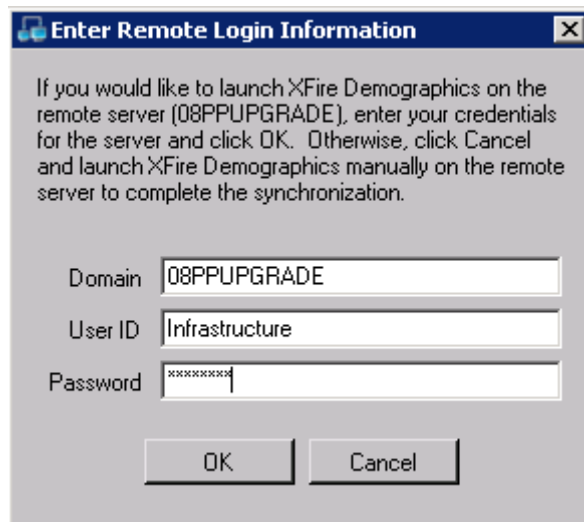13. Click the **Synch** button. The Enter Remote Login Information screen appears.



*Figure 19.  Enter Remote Login Information screen*

14. Enter the information for the remote server.

15. Click the **OK** button. The data is synched.

16. Select either **Patients** or **Patients and Appointments**.

17. Click the **Load** button. The Send All Records screen appears, showing you the progress in transferring patients and/or appointments.

    When the process is complete, all patients and/or appointments will be sent to the EMR. Depending on the number of patients and appointments, as well as your filter selections, this transmission could take some time. The Last Load Time will be updated on the Initialize Data screen.

    Clicking View Log will open the log. For more information, see "Viewing logs" on page 37.

18. Close the Initialize Data screen.

19. Double-click the MPIC icon on the desktop. The MPIC Control Panel appears.

20. Click **Start Services**. Now, MPIC will continually monitor changes in patient information and appointments and transmit these changes between applications behind the scenes.

21. Make sure that you start PPConnect on any additional practice partner servers.

# Viewing logs

MPIC creates logs as it processes transactions. These logs show you what data has transferred and what errors, if any, have occurred.

**To view logs:**

1. On the MPIC Control Panel, click the **View Logs** button. The View Logs screen appears.
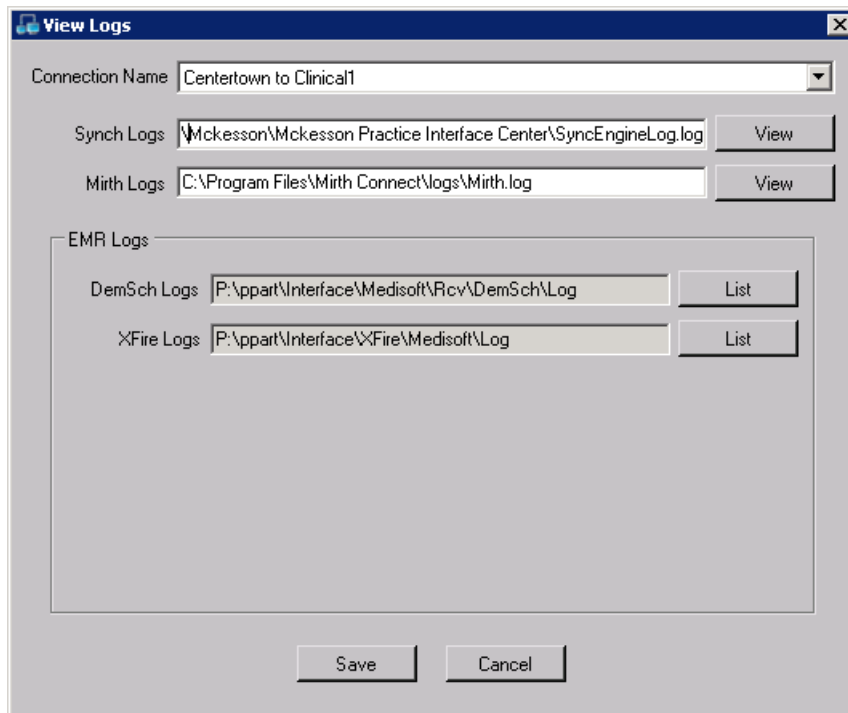


*Figure 20.  View Logs screen*

This screen shows you the available logs and their location on the disk.

2. Select the Connection Name that you want to see logs for.

3. Click the **View** or **List** button next to each log to view the log.

| Log | Description |
|---|---|
| Synch Logs | Use this to see the folder where this log is stored. For more information, see "Synch logs" on page 38. |
| Mirth Logs | Use this to see the folder where this log is stored. For more information, see "Mirth Log" on page 40. |
| DemSch Logs | Use this to see the folder where this log is stored.<br><br>These are only used for connections to CGM MEDISOFT Clinical or CGM LYTEC MD. |

| Log | Description |
|---|---|
| XFire Logs | Use this to see the folder where this log is stored. For more information, see "EMR Logs" on page 40.<br><br>These are only used for connections to CGM MEDISOFT Clinical or CGM LYTEC MD. |
| View | Use this to open the log in Notepad. |
| List | Use this to see the log in the list section of the screen below the XFire Logs field. |

# Synch logs

The Synch logs show you the activity of the MPIC Service itself, that is, the service that controls the real-time transfer of all data between the practice management application and the EMR. It will show you the date and time of the transfer, the practice, and what data was transferred. Both real-time transfers of data, such as changes to appointments and patient demographics, and one-time transfers of data, such as sending providers or initial loads of patient data will appear in the Synch logs.

Figure 21 shows the transmission of a change to a patient record. The log shows the date, the number of triggers, the Event Type (A08, the change of patient information), and the patient ID. For more information on Event Types, see "Transmitted Information" on page 51).
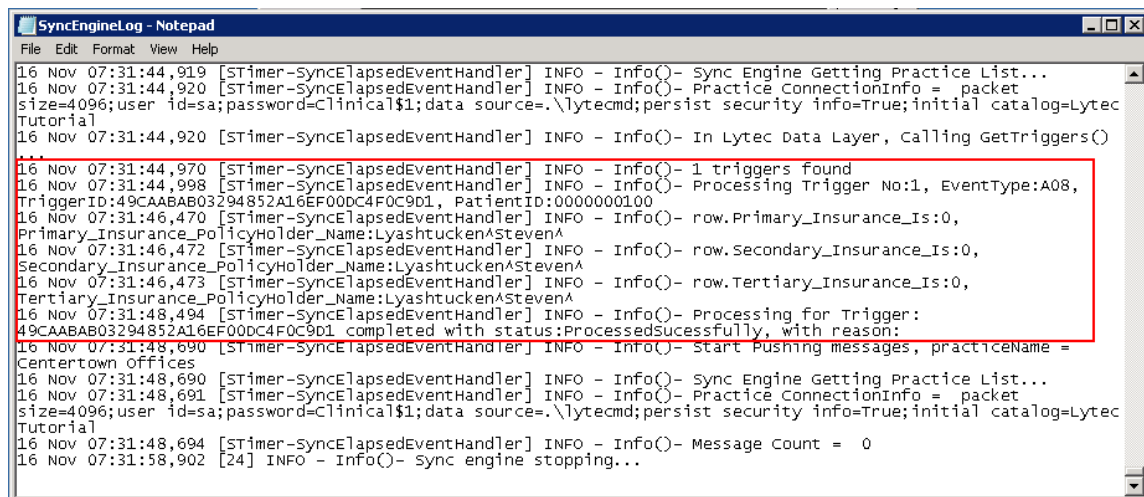


*Figure 21.  Synch log with trigger highlighted*

This size of this log is limited to 10MB. When the file reaches this size, it will be renamed and a second synch log will be created automatically. There is a limit of four synch logs. When a fifth one is created, the oldest one will be deleted and the others will be renamed.

## Modifying the Synch Log

You can control which types of information appear in the Synch log by editing the file MPICService.exe,config. This file is located at C:\Program Files\Mckesson\Mckesson Practice Interface Center on your hard drive.

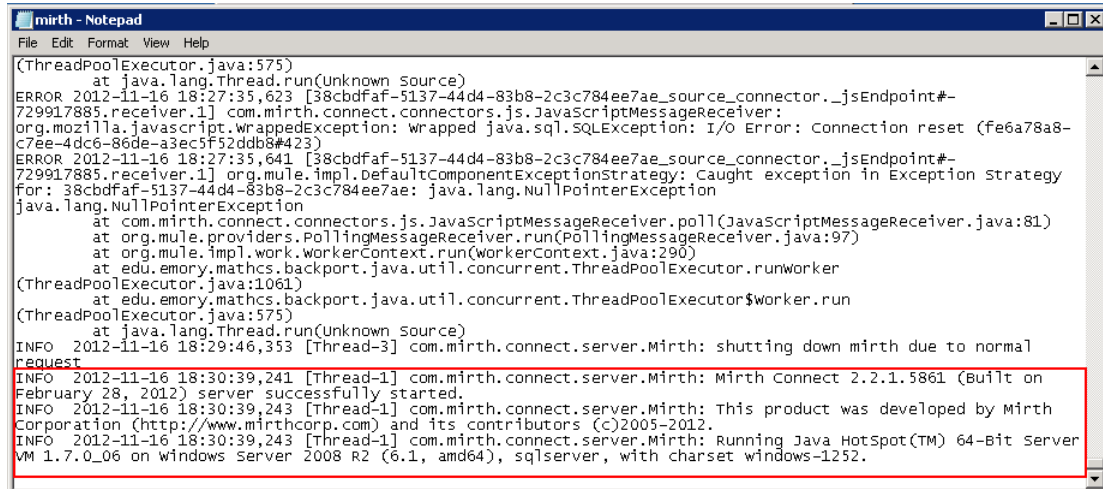When you open the file in Notepad, it looks like this:



*Figure 22.  MPICService.exe.config*

Scroll to the section highlighted in Figure 22 and you have three options you can edit.

| Option | Description |
|---|---|
| HL7TriggerBatchSize | This option controls how many triggers are in a batch for transmission. Setting this value allows MPIC to process batches of triggers more quickly. |
| HL7TriggerKeepRecordsDays | This option controls how many days that triggers will be kept in the table. Limiting the number of days will keep the trigger table smaller. |
| LoggingLevel | This option controls which items appear in the Synch log. Choices are:<br><br>• Error: Entering Error will limit the items in the Synch log to errors.<br><br>• Info: Entering Info will limit the items in the Synch log to errors and informational entries (processing messages).<br><br>• Debug: Entering Debug will include errors, informational messages, and debugging messages. |

If you make any changes to this file, be sure to save them. In addition, you must restart the MPIC service from the MPIC Control Panel after changing this file.

# Mirth Log

The Mirth log shows you activity in Mirth Connect, such as a successful connection to the database and number of records transferred. Real-time transfers of appointments, changes to patient demographics, and transfers of transactions all use Mirth Connect and appear in the Mirth log. One-time transfers of data from the Initialize Data screen do NOT use the Mirth log. Figure 23 shows the successful start of Mirth Connect.



*Figure 23.  Mirth log*

# EMR Logs

These logs show you data that was transmitted to and from the EMR. You can see successful transmissions as well as errors that you can use to correct information in records.

## DemSch Logs

Clicking the View button for DemSch Logs will display a list of logs in the View Logs screen:
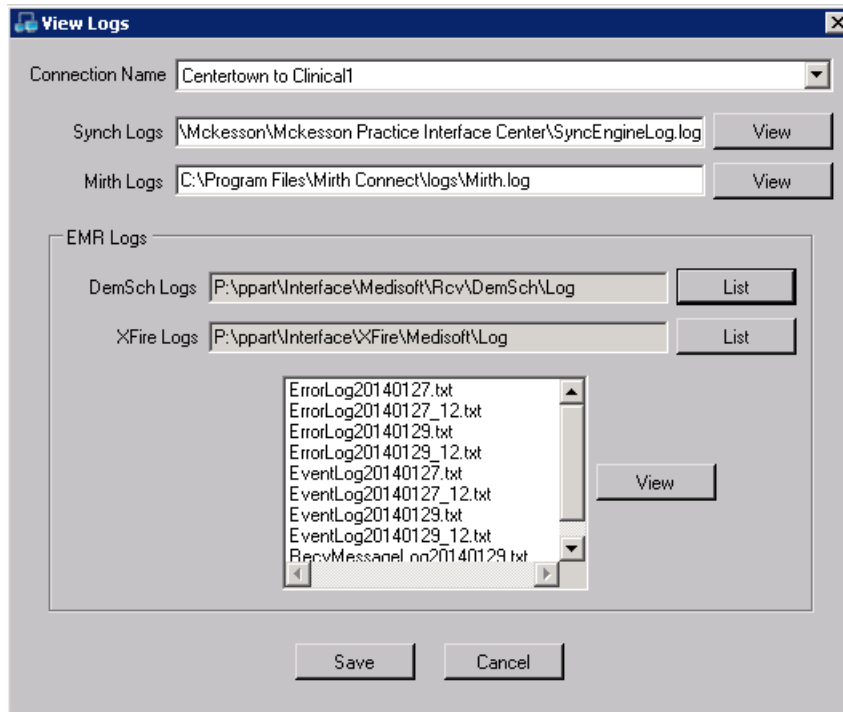


*Figure 24.  View Logs screen with DemSch Logs*

In turn, clicking one of the event logs will open the log in Notepad. This log will show you information that is being transmitted from the practice management application to the EMR. This includes real-time transfers of data, such as appointments and changes to patient demographics.

Figure 25 shows an example of the DemSch log with a message of a real-time transfer of data. It shows the date of the transfer, the practice, the type of transfer, and patient demographics.
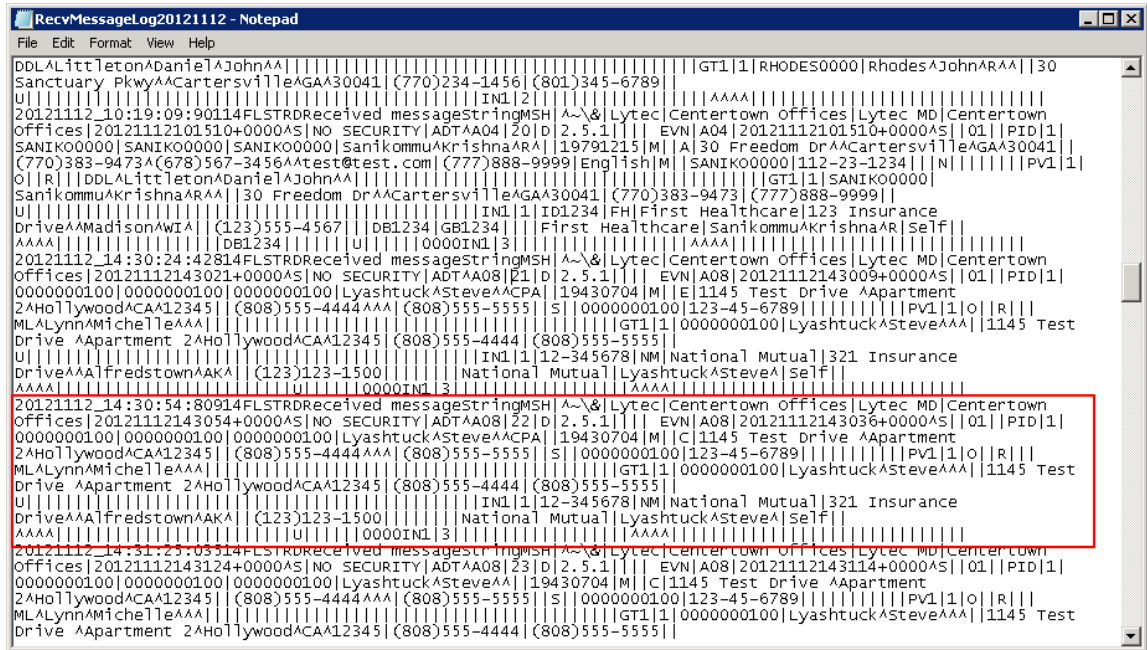


*Figure 25.  DemSch log*

# XFire Logs

Clicking the View button for XFire Logs will display a list of logs in the View Logs screen:
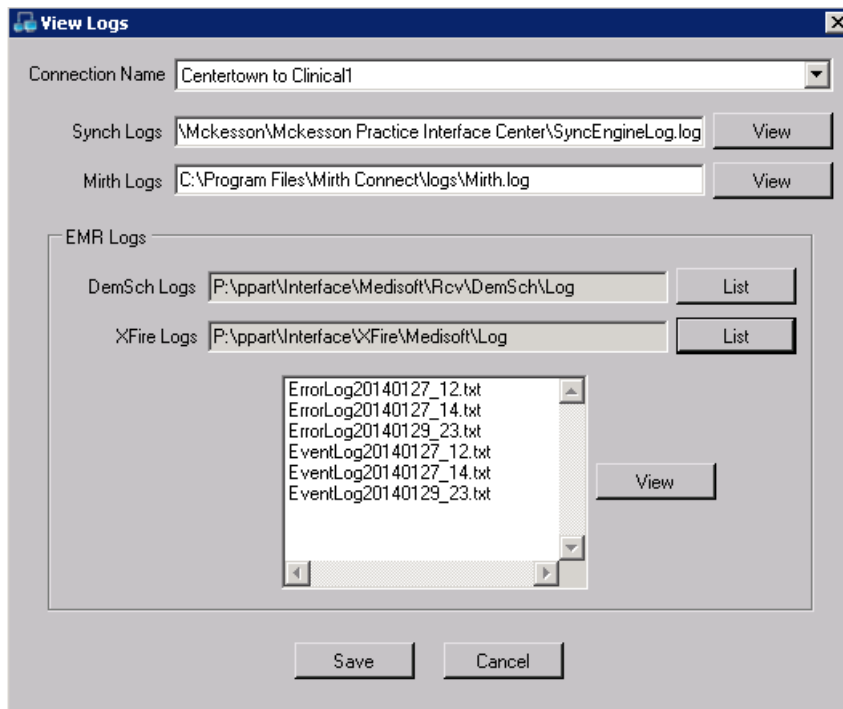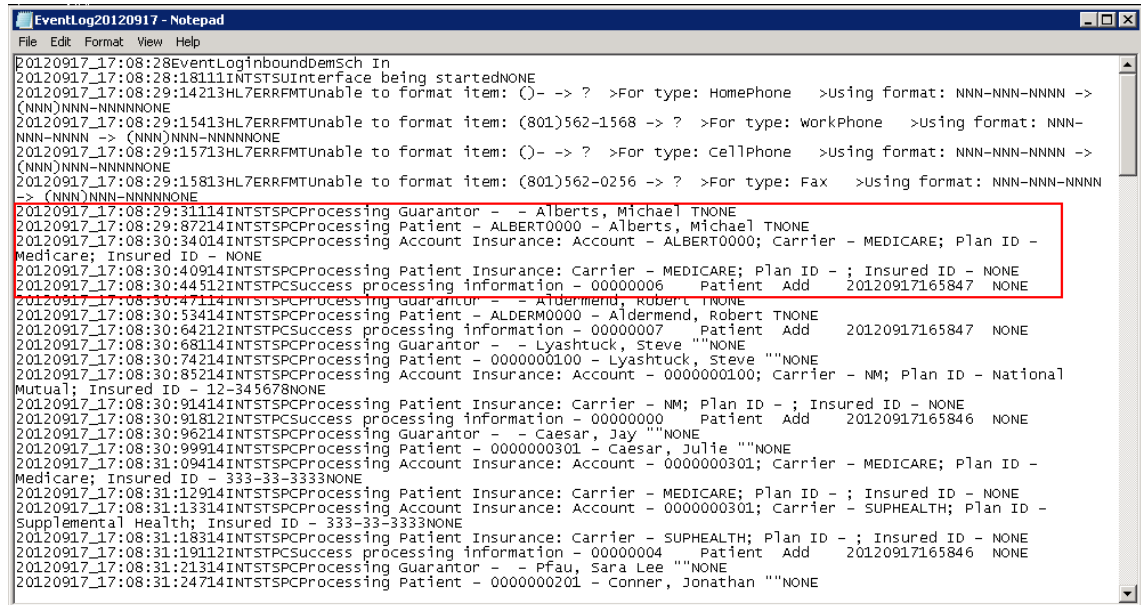


*Figure 26.  View Logs screen with XFire Logs*

In turn, clicking one of the event logs will open the log in Notepad. The XFire log shows you data that is sent to the EMR using the Initialize Data screen, such as sending Providers and Facilities, or loading patients and/or appointments. Any errors in the transmission of this data will appear in the XFire log.

Figure 27 shows an example of the processing of a patient record. The log shows the patient name, ID, and insurance carriers.



*Figure 27.  XFire log*

# Flow of information

## Real-Time transfers

Data that is transmitted in real-time, such as changes to patient demographics, appointments, and transactions will flow between applications in this order:

1. MPIC Service

2. Mirth Connect

3. DemSch Interface

Real-time transfers of data will flow in both directions.

## One-Time transfers

Data that is transmitted as part of a one-time transfer, such as sending providers and facilities, will flow between applications in this order:

1. MPIC Service

2. Crossfire (XFire)

One-time data transfer is one way only: from the practice management system to the EMR.

# Log summary

Each log corresponds to the activity of one of the applications used in real-time or one-time transfer of data:

| Application | Associated Log | Time of transfer |
|---|---|---|
| MPIC Service | Synch | Real-time/one-time |
| Mirth Connect | Mirth | Real-time |
| PP Connect | DemSch | Real-time |
| Crossfire (XFire) | XFire | One-time |

If there is a problem with data transfer, you can check the logs in the order of the flow of information and find where the problem occurred. Each log will show you errors in transmission.

# Create New Connection screen

Use this screen to enter a Connection Name for a new connection.



*Figure 28.  Create New Connection screen*

# Folders screen

Use the Folders screen to specify where HL7 messages will be stored when you select a CGM LYTEC MD or CGM MEDISOFT Clinical connection type. The folders will be set up automatically based on the interface you select. Once the data in these folders has been processed, it will be deleted.

You will see this screen when you click the EMR Settings button from the Settings screen and you are configuring a CGM LYTEC MD or CGM MEDISOFT Clinical connection.

For all connections to remote servers, you must enter the UNC path to the server folder. You cannot use a mapped network drive. If you click the Browse button and select a mapped network drive, it will be changed automatically to the correct UNC path.
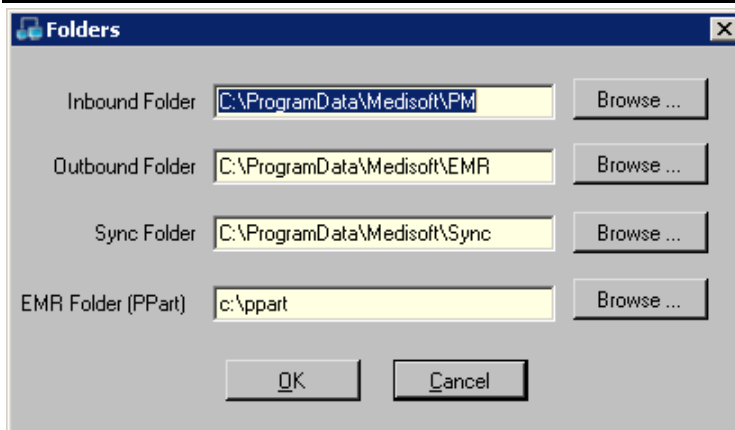
*Figure 29.  Folders screen*

| Folder | Description |
|---|---|
| Inbound Folder | Use this to select the folder for the inbound HL7 file. This folder will hold the files that come from the EMR to the practice management system. |
| Outbound Folder | Use this to select the folder where the outbound HL7 file will be deposited. This folder will hold the files that come from the practice management system to the EMR. |
| Sync Folder | Use this to select the folder where the updated library files (updates to providers, facilities, procedure codes, and diagnosis codes) will be placed for synchronization. |
| EMR Folder (PPart) | Use this to select the folder where Practice Partner is installed. |

# RelayHealth Settings screen

Use the RelayHealth Settings screen to enter information that you received from RelayHealth. This information will enable MPIC to send your patient demographic information to the correct practice at RelayHealth. Also, specify the folder where data will be stored.

You will see this screen when you click the EMR Settings button from the Settings screen and you are configuring a Relay Health connection. You will also see it when configuring a CGM LYTEC MD or CGM MEDISOFT Clinical connection and you click the Relay Health Settings button.



*Figure 30. RelayHealth Settings screen*

| Folder | Description |
|---|---|
| Practice Id | Use this field to enter the Practice ID you received from RelayHealth. This is the Practice ID that RelayHealth has in its database. |
| Partner Id | Use this field to enter the Partner ID you received from RelayHealth. This value denotes the Sending Facility. |
| Relay Connector Folder | Use this field to specify the folder where demographic information will be stored before it is sent to RelayHealth. Data transfers will be placed as files in this folder. The RelayConnector Configuration Utility will then send the information in these files to RelayHealth. The files will then be deleted. |
| | You will need to know this path when you set up the RelayConnector Configuration Utility. For more information, see "Configure the Relay Connector Configuration Utility" on page 64. |
| | In addition, if you have more than one connection, you must enter a UNC path in this field for all connections except the first one you created. |

| Folder | Description |
|---|---|
| **Browse** | Click this button to look for the folder you want demographic information to be stored in. |
| **Source Provider ID** | Enter the ID of your provider from CGM MEDISOFT or CGM LYTEC. Use these fields for each of your providers. Enter a Source Provider ID value and a RelayHealth value for as many providers as you have set up in RelayHeatlh. The screen will expand so you can enter more providers. |
| **RelayHealth Provider ID** | Enter the corresponding ID for your provider in RelayHealth. This field, coupled with the Source Provider IDs field, enables MPIC to know which provider in CGM MEDISOFT or CGM LYTEC to match to which provider in RelayHealth. RelayHealth will send you a list of your provider IDs when you sign up. |
| **Default** | Select this button for the provider that will be your default provider. |

# MPIC Database Settings screen

Use this screen to create a new SQL database for MPIC.

Warning: creating a new MPIC database will cause MPIC to lose all existing settings and configuration options and return it to its installation state.



*Figure 31. MPIC Database Settings screen*

| Field | Description |
| --- | --- |
| Server Type | This field displays the type of server. |
| Server Name | Use this field to select the SQL instance. For CGM LYTEC users who want to use the same instance as CGM LYTEC (LYTECMD), use the value in the Server field on the Specify Default SQL Credentials screen. CGM MEDISOFT users will use the MPIC instance. |
| Database Name | This field displays the database name. |
| Login | Use this to enter the login name for the instance. |
| Password | Use this to enter the password for the login. |
| Create Databases | Select this check box to display the login fields for the new database. Note: Creating a new database will result in the loss of all existing configuration settings. |
| Login | Enter the login for the system administrator. |
| Password | Enter the password for the system administrator. |
| Save | Click this button to save the settings. |
| Cancel | Click this button to cancel any changes to settings. |

# Enter Remote Login Information screen

Use this screen to enter login credentials for XFire Demographics when MPIC is trying to start it on a remote server.
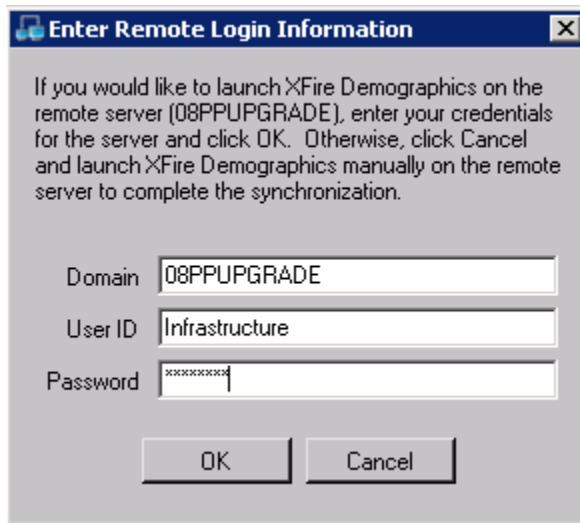


*Figure 32.  Enter Remote Login Information screen*

| Field | Description |
|-------|-------------|
| Domain | Enter the server name or IP address in the Domain field. |
| User ID | Enter the ID of the user for the remote server. |
| Password | Enter the password of the user for the remote server. |

The user account you enter must have administrative rights on the remote server.

# Appendix A - Transmitted Information

In this appendix are lists of the data that is transferred for the different Connection Types in MPIC.

## In this chapter

# CGM MEDISOFT to Practice Partner

## Message description

| Message Type | Description |
|---|---|
| ADT A04 | An ADT^A04 messages is created in response to a new patient event within the practice management System. |
| ADT A08 | An ADT^A08 message is created in response to an update of patient information event within the practice management System. |
| ADT A40 | An ADT^A40 message is not supported in CGM MEDISOFT or CGM MEDISOFT Clinical. |

## Exported segments

The detail for each segment follows this table.

| Segment | Description |
|---|---|
| MSH | Message Header |
| EVN | Event Type |
| PID | Patient Identification |
| PV1 | Patient Visit |
| IN1 | Insurance (up to 3) (Optional) |

## MSH segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | "^~\&" |
| 2 | X | Sending Application – Use Practice ID |
| 3 | X | Sending Facility. |
| 4 | X | Receiving Application |
| 5 | X | Receiving Facility |
| 6 | X | Date/Time of Message |
| 7 | X | Security |
| 8 | X | Message Type |

## EVN segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Event Code |
| 2 | X | Recorded Date Time |
| 3 | | Date Time of Planned Event |
| 4 | X | Event Reason Code |
| 5 | | Operator ID |
| 6 | | Date Time that Event Occurred |

## PID segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Set ID  (always 1) |
| 2 | X | Patient ID |
| 3 | X | Patient Identifier List |
| 4 | X | Alternate Patient ID |
| 5 | X | Patient Name |
| 6 | | Mother's Maiden Name |
| 7 | X | Date Time of Birth |
| 8 | X | Sex |
| 9 | | Patient Alias |
| 10 | | Race |
| 11 | X | Patient Address |
| 12 | | County Code |

| 13 | X | Home phone number  ^ Cell Phone Number^<Spacer>^Email Address |
|----|---|----------------------------------------------------------------|
| 14 | X | Business phone number |
| 15 |   | Primary Language |
| 16 | X | Marital Status (Concept Only) |
| 17 |   | Religion |
| 18 | X | Patient account Number (Patient ID is used.  Duplicate of field 2) |
| 19 | X | Patient SSN Number |
| 20 |   | Patient Drivers License Number |
| 21 |   | Mother's Identifier |
| 22 |   | Ethnic Group |
| 23 |   | Birth Place |
| 24 |   | Multiple Birth Indicator |
| 25 |   | Birth Order |
| 26 |   | Citizenship |
| 27 |   | Veterans Military Status |
| 28 |   | Nationality |
| 29 | X | Patient Death Date Time  (Concept Only) |
| 30 |   | Patient Death Indicator |

## PV1 segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | Set ID Always 1 |
| 2 | X | Patient Class – Use "O" |
| 3 |  | Assigned Patient Location |
| 4 |  | Admission Type |
| 5 |  | Pre-admit Number |
| 6 |  | Prior Patient Location |
| 7 | X | Attending Doctor |
| 8 | X | Referring Doctor |
| 9 |  | Consulting Doctor |
| 10 |  | Hospital Service |
| 11 |  | Temporary Location |
| 12 |  | Pre-admit Test Indicator |
| 13 |  | Re-admission Indicator |
| 14 |  | Admit Source |
| 15 |  | Ambulatory Status |
| 16 |  | VIP Indicator |
| 17 |  | Admitting Doctor |
| 18 |  | Patient Type |
| 19 | X | Visit Number (Case number if available) |
| 20 |  | Financial Class |
| 21 |  | Charge Price Indicator |
| 22 |  | Courtesy Code |
| 23 |  | Credit Rating |
| 24 |  | Contract Code |
| 25 |  | Contract Effective Dat - Blank e |
| 26 |  | Contract Amount |
| 27 |  | Contract Period |
| 28 |  | Interest Code |
| 29 |  | Transfer to Bad Debt  Code |
| 30 |  | Transfer to Bad Debt Date |
| 31 |  | Bad Debt Agency Code |
| 32 |  | Bad Debt Transfer Amount |

| 33 |  | Bad Debt Recovery Amount |
|----|--|--------------------------|
| 34 |  | Delete Account Indicator |
| 35 |  | Delete Account Date |
| 36 |  | Discharge Disposition |
| 37 |  | Discharged to Location |
| 38 |  | Diet Type |
| 39 |  | Servicing Facility |
| 40 |  | Bed Status |
| 41 |  | Account Status |
| 42 |  | Pending Location |
| 43 |  | Prior Temporary Location |
| 44 |  | Admit Date/Time |
| 45 |  | Discharge Date/Time |
| 46 |  | Current Patient Balance |
| 47 |  | Total Charges |
| 48 |  | Total Adjustments |
| 49 |  | Total Payments |

## IN1 segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Set ID - IN1 – Use "1" for Insurance carrier # 1, "2" for carrier 2 etc. "1" represents the primary insurance carrier. |
| 2 | X | Insurance Plan ID – This is the Policy ID. |
| 3 | X | Insurance Company ID |
| 4 | X | Insurance Company Name |
| 5 | X | Insurance Company Address |
| 6 | X | Insurance Co Contact Person |
| 7 | X | Insurance Co Phone Number – Use blank string if only phone formatting found. |
| 8 | X | Group Number |
| 9 | X | Group Name |
| 10 | X | Insured's Group Emp ID  (Policy Number) |
| 11 |  | Insured's Group Emp Name |
| 12 | X | Plan Effective Date |
| 13 | X | Plan Expiration Date |

| 14 |   | Authorization Information |
| 15 |   | Plan Type |
| 16 | X | Name Of Insured |
| 17 | X | Insured's Relationship To Patient |
| 18 | X | Insured's Date Of Birth |
| 19 | X | Insured's Address |
| 20 |   | Assignment Of Benefits |
| 21 |   | Coordination Of Benefits |
| 22 |   | Co-ord Of Ben. Priority |
| 23 |   | Notice Of Admission Flag |
| 24 |   | Notice Of Admission Date |
| 25 |   | Report Of Eligibility Flag |
| 26 |   | Report Of Eligibility Date |
| 27 |   | Release Information Code |
| 28 |   | Pre-Admit Cert (PAC) |
| 29 |   | Verification Date/Time |
| 30 |   | Verification By |
| 31 |   | Type Of Agreement Code |
| 32 |   | Billing Status |
| 33 |   | Lifetime Reserve Days |
| 34 |   | Delay Before L.R. Day |
| 35 |   | Company Plan Code |
| 36 | X | Policy Number |
| 37 |   | Policy Deductible |
| 38 |   | Policy Limit - Amount |
| 39 |   | Policy Limit - Days |
| 40 |   | Room Rate - Semi-Private |
| 41 |   | Room Rate - Private |
| 42 |   | Insured's Employment Status |
| 43 | X | Insured's Sex |
| 44 |   | Insured's Employer's Address |
| 45 |   | Verification Status |
| 46 |   | Prior Insurance Plan ID |
| 47 |   | Coverage Type |

| 48 | | Handicap  - Blank |
|----|--|-------------------|
| 49 | | Insured's ID Number |

# SIU Message

## MSH segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | "^~\&" |
| 2 | X | Sending Application |
| 3 | X | Sending Facility – "SEND FAC" |
| 4 | X | Receiving Application – Use "INSTANTDX" if system type is InstantDx else blank |
| 5 | X | Receiving Facility – Use "RECV FAC" |
| 6 | X | DateTime of Message - Example date format string use 20050713135807+0000^S |
| 7 | X | Security – Use "NO SECURITY" |
| 8 | X | Message Type – special cases consideration<br><br>– For CGM MEDISOFTClinical or CGM LYTECMD if it is a reschedule (S13)<br><br>Use "S14" |
| 9 | X | Message Control ID – Use connection "Last Transmission Sequence number" – this is pull from connection record store in [HL7Cons] table which is SharedData db – column name is sequence<br><br>Note(s): this column will be moved o [Practice] table as HL7ControlID. |
| 10 | X | Processing ID - Use "P" |
| 11 | X | Version ID - Use "2.4" |
| 12 | X | Sequence Number – Use connection "Last Transmission Sequence number" – this is pull from connection record store in [HL7Cons] table which is SharedData db – column name is sequence<br><br>Note(s): this column will be moved o [Practice] table as HL7ControlID. |
| 13 | | Continuation Pointer |
| 14 | | Accept Acknowledge Type |
| 15 | | Application Acknowledgement Type |
| 16 | | Country Code |
| 17 | | Character Set |

| 18 |  | Principal Language of Message |
| 19 |  | Alternate Character Set Handling Scheme |

- 13– 19: Special Consideration

## SCH Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Placer Appointment ID<br>If Repeated,<br>Use Appointment ID + Date(YYYYMMDD) + "R"<br>ELSE,<br>Use Appointment ID + "A" |
| 2 | | Filler Appointment ID |
| 3 | | Occurrence Number |
| 4 | | Placer Group Number |
| 5 | | Schedule ID |
| 6 | | Event Reason |
| 7 | X | Appointment Reason – "^" + Appt Reason |
| 8 | X | Appointment Type – Use "NORMAL" |
| 9 | X | Appointment Duration |
| 10 | X | Appointment Duration Units – Use "min" |
| 11 | X | Appointment Timing Quantity (appt date and time) –<br>"^^^" + (Date – YYYYMMDDhhmmss + 0000^S) +<br>"^^^^^" |
| 12 | | Placer Contact Person |
| 13 | | Placer Contact Phone Number |
| 14 | | Placer Contact Address |
| 15 | | Placer Contact Location |
| 16 | | Filler Contact Person |
| 17 | | Filler Contact Phone Number |
| 18 | | Filler Contact Address |
| 19 | X | Filler Contact Location (not available in Concept) |
| 20 | | Entered by Person |
| 21 | | Entered by Phone Number |
| 22 | | Entered by Location |
| 23 | | Parent Placer Appointment ID |

| 24 | | Parent Filler Appointment ID |
|----|----|-----|
| 25 | | Filler Status Code – special consideration:<br>If CGM LYTECMD or CGM MEDISOFT Clinical<br>If connection send appt status<br>and reschedule, – send an update – setting status as blank<br>Else, send appt status<br>If connection send appt status is not true – send status as blank |

## PID Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Set ID - Use "1" |
| 2 | X | Patient ID |
| 3 | X | Patient Identifier List - special cases consideration: |
| 4 | X | Alternate Patient ID - special cases consideration:<br>Advantage – Use Patient Code<br>CGM LYTEC – Use Patient ID |
| 5 | X | Patient Name |
| 6 | | Mother's Maiden Name |
| 7 | X | Date Time of Birth |
| 8 | X | Sex |
| 9 | | Patient Alias |
| 10 | X | Race |
| 11 | X | Patient Address |
| 12 | | County Code |
| 13 | X | Home phone number - special cases consideration:<br>For CGM LYTECMD or CGM MEDISOFT Clinical<br>Home phone + "^" + Cell phone + "^^" + Email |
| | X | Business phone number |
| 15 | X | Primary Language |
| 16 | X | Marital Status - special cases consideration:<br>"D" – Divorced<br>"M" – Married<br>"O" – Separated for CGM MEDISOFT database, type else "A"<br>"S" – Single<br>"W" – Divorced<br>"" – Unknown |
| 17 | | Religion |
| 18 | X | Patient account Number (Patient ID is used. Duplicate of field 2) |
| 19 | X | Patient SSN Number |
| 20 | | Patient Drivers License Number |

| 21 |   | Mother's Identifier |
|----|---|---------------------|
| 22 | X | Ethnic Group |
| 23 |   | Birth Place |
| 24 |   | Multiple Birth Indicator |
| 25 |   | Birth Order |
| 26 |   | Citizenship |
| 27 |   | Veterans Military Status |
| 28 |   | Nationality |
| 29 | X | Patient Death Date Time |
| 30 | X | Patient Death Indicator - blank |

- 20 – 30 : Special consideration

## RGS Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Segment Action Code. If EventType is S12- "A" for add, S15 or S17 - "D" for Delete, S13 or S14 – "U" for modification or Cancellation |
| 2 | | Resource Group ID |

# AIP Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Set ID – Always 1 |
| 2 | X | Segment Action code. If EventType is S12- "A" for add, S15 or S17 - "D" for Delete, S13 or S14 – "U" for modification or Cancellation |
| 3 | X | Personnel Resource ID - Use Appt Resource Code + "^" + Resource LastName + "^" Resource FirstName + "^" + Resource MiddleName + "^^" + Resource Credentials |
| 4 | | Resource Role |
| 5 | | Resource Group |
| 6 | X | Start Date/Time – Use date format ( YYYYMMDDhhmmss + 0000^S) |
| 7 | | Start Date/Time Offset |
| 7 | | Start Date/Time Offset Units |
| 8 | X | Duration |
| 9 | X | Duration Units – Use "min" |
| 10 | | Allow Substitution Code |
| 11 | | Filler Status Code |

# CGM LYTEC to Practice Partner

## Message description

| Message Type | Description |
|---|---|
| ADT A04 | An ADT^A04 messages is created in response to a new patient event within the practice management System. |
| ADT A08 | An ADT^A08 message is created in response to an update of patient information event within the practice management System. |
| ADT A40 | An ADT^A40 message is not supported in CGM LYTEC or CGM LYTEC MD. |

## Exported segments

The detail for each segment follows this table.

| Segment | Description |
|---|---|
| MSH | Message Header |
| EVN | Event Type |
| PID | Patient Identification |
| PV1 | Patient Visit |
| IN1 | Insurance (up to 3) (Optional) |

# MSH segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | "^~\&" |
| 2 | X | Sending Application – Use Practice ID |
| 3 | X | Sending Facility. |
| 4 | X | Receiving Application |
| 5 | X | Receiving Facility |
| 6 | X | DateTime of Message |
| 7 | X | Security |
| 8 | X | Message Type |

# EVN segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | Event Code |
| 2 | X | Recorded Date Time |
| 3 | | Date Time of Planned Event |
| 4 | X | Event Reason Code |
| 5 | | Operator ID |
| 6 | | Date Time that Event Occurred |

# PID segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | Set ID  (always 1) |
| 2 | X | Patient ID |
| 3 | X | Patient Identifier List |
| 4 | X | Alternate Patient ID |
| 5 | X | Patient Name |
| 6 | | Mother's Maiden Name |
| 7 | X | Date Time of Birth |
| 8 | X | Sex |
| 9 | | Patient Alias |
| 10 | | Race |
| 11 | X | Patient Address |
| 12 | | County Code |
| 13 | X | Home phone number  ^ Cell Phone Number^<Spacer>^Email Address |
| 14 | X | Business phone number |
| 15 | | Primary Language |
| 16 | X | Marital Status (Concept Only) |
| 17 | | Religion |
| 18 | X | Patient account Number (Patient ID is used.  Duplicate of field 2) |
| 19 | X | Patient SSN Number |
| 20 | | Patient Drivers License Number |
| 21 | | Mother's Identifier |
| 22 | | Ethnic Group |
| 23 | | Birth Place |

| 24 |   | Multiple Birth Indicator |
|----|---|--------------------------|
| 25 |   | Birth Order |
| 26 |   | Citizenship |
| 27 |   | Veterans Military Status |
| 28 |   | Nationality |
| 29 | X | Patient Death Date Time  (Concept Only) |
| 30 |   | Patient Death Indicator |

## PV1 segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | Set ID Always 1 |
| 2 | X | Patient Class – Use "O" |
| 3 | | Assigned Patient Location |
| 4 | | Admission Type |
| 5 | | Pre-admit Number |
| 6 | | Prior Patient Location |
| 7 | X | Attending Doctor |
| 8 | X | Referring Doctor |
| 9 | | Consulting Doctor |
| 10 | | Hospital Service |
| 11 | | Temporary Location |
| 12 | | Pre-admit Test Indicator |
| 13 | | Re-admission Indicator |
| 14 | | Admit Source |
| 15 | | Ambulatory Status |
| 16 | | VIP Indicator |
| 17 | | Admitting Doctor |
| 18 | | Patient Type |
| 19 | X | Visit Number (Case number if available) |
| 20 | | Financial Class |
| 21 | | Charge Price Indicator |
| 22 | | Courtesy Code |
| 23 | | Credit Rating |
| 24 | | Contract Code |
| 25 | | Contract Effective Date - Blank e |
| 26 | | Contract Amount |
| 27 | | Contract Period |
| 28 | | Interest Code |
| 29 | | Transfer to Bad Debt  Code |
| 30 | | Transfer to Bad Debt Date |
| 31 | | Bad Debt Agency Code |
| 32 | | Bad Debt Transfer Amount |

| 33 | | Bad Debt Recovery Amount |
|----|--|--------------------------|
| 34 | | Delete Account Indicator |
| 35 | | Delete Account Date |
| 36 | | Discharge Disposition |
| 37 | | Discharged to Location |
| 38 | | Diet Type |
| 39 | | Servicing Facility |
| 40 | | Bed Status |
| 41 | | Account Status |
| 42 | | Pending Location |
| 43 | | Prior Temporary Location |
| 44 | | Admit Date/Time |
| 45 | | Discharge Date/Time |
| 46 | | Current Patient Balance |
| 47 | | Total Charges |
| 48 | | Total Adjustments |
| 49 | | Total Payments |

## IN1 segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Set ID - IN1 – Use "1" for Insurance carrier # 1, "2" for carrier 2 etc.  "1" represents the primary insurance carrier. |
| 2 | X | Insurance Plan ID – This is the Policy ID. |
| 3 | X | Insurance Company ID |
| 4 | X | Insurance Company Name |
| 5 | X | Insurance Company Address |
| 6 | X | Insurance Co Contact Person |
| 7 | X | Insurance Co Phone Number – Use blank string if only phone formatting found. |
| 8 | X | Group Number |
| 9 | X | Group Name |
| 10 | X | Insured's Group Emp ID  (Policy Number) |
| 11 | | Insured's Group Emp Name |

| 12 | X | Plan Effective Date |
| 13 | X | Plan Expiration Date |
| 14 | | Authorization Information |
| 15 | | Plan Type |
| 16 | X | Name Of Insured |
| 17 | X | Insured's Relationship To Patient |
| 18 | X | Insured's Date Of Birth |
| 19 | X | Insured's Address |
| 20 | | Assignment Of Benefits |
| 21 | | Coordination Of Benefits |
| 22 | | Coord Of Ben. Priority |
| 23 | | Notice Of Admission Flag |
| 24 | | Notice Of Admission Date |
| 25 | | Report Of Eligibility Flag |
| 26 | | Report Of Eligibility Date |
| 27 | | Release Information Code |
| 28 | | Pre-Admit Cert (PAC) |
| 29 | | Verification Date/Time |
| 30 | | Verification By |
| 31 | | Type Of Agreement Code |
| 32 | | Billing Status |
| 33 | | Lifetime Reserve Days |

# SIU Message

## MSH segment

| Field | Included | Notes |
|---|---|---|
| 1 | X | "^~\&" |
| 2 | X | Sending Application |
| 3 | X | Sending Facility – "SEND FAC" |
| 4 | X | Receiving Application – Use "INSTANTDX" if system type is InstantDx else blank |
| 5 | X | Receiving Facility – Use "RECV FAC" |
| 6 | X | DateTime of Message - Example date format string use 20050713135807+0000^S |
| 7 | X | Security – Use "NO SECURITY" |
| 8 | X | Message Type – special cases consideration<br><br>– For CGM MEDISOFTClinical or CGM LYTECMD if it is a reschedule (S13)<br><br>Use "S14" |
| 9 | X | Message Control ID – Use connection "Last Transmission Sequence number" – this is pull from connection record store in [HL7Cons] table which is SharedData db – column name is sequence<br><br>Note(s): this column will be moved o [Practice] table as HL7ControlID. |
| 10 | X | Processing ID - Use "P" |
| 11 | X | Version ID - Use "2.4" |
| 12 | X | Sequence Number – Use connection "Last Transmission Sequence number" – this is pull from connection record store in [HL7Cons] table which is SharedData db – column name is sequence<br><br>Note(s): this column will be moved o [Practice] table as HL7ControlID. |
| 13 | | Continuation Pointer |
| 14 | | Accept Acknowledge Type |
| 15 | | Application Acknowledgement Type |
| 16 | | Country Code |
| 17 | | Character Set |

| 18 | | Principal Language of Message |
|---|---|---|
| 19 | | Alternate Character Set Handling Scheme |

- 13– 19: Special Considerations

# SCH Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Placer Appointment ID<br>If Repeated,<br>Use Appointment ID + Date(YYYYMMDD) + "R"<br>ELSE,<br>Use Appointment ID + "A" |
| 2 | | Filler Appointment ID |
| 3 | | Occurrence Number |
| 4 | | Placer Group Number |
| 5 | | Schedule ID |
| 6 | | Event Reason |
| 7 | X | Appointment Reason – "^" + Appt Reason |
| 8 | X | Appointment Type – Use "NORMAL" |
| 9 | X | Appointment Duration |
| 10 | X | Appointment Duration Units – Use "min" |
| 11 | X | Appointment Timing Quantity (appt date and time) –<br>"^^^" + (Date – YYYYMMDDhhmmss + 0000^S) +<br>"^^^^^" |
| 12 | | Placer Contact Person |
| 13 | | Placer Contact Phone Number |
| 14 | | Placer Contact Address |
| 15 | | Placer Contact Location |
| 16 | | Filler Contact Person |
| 17 | | Filler Contact Phone Number |
| 18 | | Filler Contact Address |
| 19 | X | Filler Contact Location (not available in Concept) |
| 20 | | Entered by Person |
| 21 | | Entered by Phone Number |
| 22 | | Entered by Location |
| 23 | | Parent Placer Appointment ID |

| 24 | | Parent Filler Appointment ID |
| --- | --- | --- |
| 25 | | Filler Status Code – special consideration: |
| | | If CGM LYTECMD or CGM MEDISOFT Clinical |
| | | If connection send appt status |
| | | and reschedule, – send an update – setting status as blank |
| | | Else, send appt status |
| | | If connection send appt status is not true – send status as blank |

## PID Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Set ID - Use "1" |
| 2 | X | Patient ID |
| 3 | X | Patient Identifier List - special cases consideration: |
| 4 | X | Alternate Patient ID - special cases consideration:<br>Advantage – Use Patient Code<br>CGM LYTEC – Use Patient ID |
| 5 | X | Patient Name |
| 6 | | Mother's Maiden Name |
| 7 | X | Date Time of Birth |
| 8 | X | Sex |
| 9 | | Patient Alias |
| 10 | X | Race |
| 11 | X | Patient Address |
| 12 | | County Code |
| 13 | X | Home phone number - special cases consideration:<br>For CGM LYTECMD or CGM MEDISOFT Clinical<br>Home phone + "^" + Cell phone + "^^" + Email |
| | X | Business phone number |
| 15 | X | Primary Language |
| 16 | X | Marital Status - special cases consideration:<br>"D" – Divorced<br>"M" – Married<br>"O" – Separated for CGM MEDISOFT database, type else "A"<br>"S" – Single<br>"W" – Divorced<br>"" – Unknown |
| 17 | | Religion |
| 18 | X | Patient account Number (Patient ID is used. Duplicate of field 2) |
| 19 | X | Patient SSN Number |
| 20 | | Patient Drivers License Number |
| 21 | | Mother's Identifier |

| 22 | X | Ethnic Group |
|----|---|--------------|
| 23 |   | Birth Place |
| 24 |   | Multiple Birth Indicator |
| 25 |   | Birth Order |
| 26 |   | Citizenship |
| 27 |   | Veterans Military Status |
| 28 |   | Nationality |
| 29 | X | Patient Death Date Time |
| 30 | X | Patient Death Indicator - blank |

- 20 – 30 : Special considerations

## RGS Segment

| Field | Included | Notes |
|-------|----------|-------|
| 1 | X | Segment Action Code. If EventType is S12- "A" for add, S15 or S17 - "D" for Delete, S13 or S14 – "U" for modification or Cancellation |
| 2 |   | Resource Group ID |

# AIP Segment

| Field | Included | Notes |
| --- | --- | --- |
| 1 | X | Set ID – Always 1 |
| 2 | X | Segment Action code. If EventType is S12- "A" for add, S15 or S17 - "D" for Delete, S13 or S14 – "U" for modification or Cancellation |
| 3 | X | Personnel Resource ID - Use Appt Resource Code + "^" + Resource LastName + "^" Resource FirstName + "^" + Resource MiddleName + "^^" + Resource Credentials |
| 4 | | Resource Role |
| 5 | | Resource Group |
| 6 | X | Start Date/Time – Use date format ( YYYYMMDDhhmmss + 0000^S) |
| 7 | | Start Date/Time Offset |
| 7 | | Start Date/Time Offset Units |
| 8 | X | Duration |
| 9 | X | Duration Units – Use "min" |
| 10 | | Allow Substitution Code |
| 11 | | Filler Status Code |

# Appendix B - Automate Provider Mapping

## Overview

Review this appendix to help determine if using automate provider mapping is appropriate for your facility.

The automate provider mapping feature, when enabled, manages provider updates and replaces the need to manually edit and update cross reference files, as well as enter providers in both the practice management application and the EMR.

## Methods of provider mappings

There are two methods for mapping providers between the practice management application and the EMR:

- via manual provider entry in both systems and then updating the cross reference files to map the providers between the systems, or

- via automate provider mapping controlled by the Automate Provider Mapping check box on the Settings screen that manages the process.

You can take advantage of automatic provider mapping if you have a one-to-one relationship in your current provider record mapping between the practice management application and your EMR.

A one-to-one mapping relationship means that you have one provider ID for each provider record in your practice management application mapping to one provider ID in your EMR. If your practice is set up with one-to-one provider mapping, you can use the automatic provider mapping feature.

### Provider mapping examples for Practice Partner

#### One-to-one mapping example

To check the Dem Sch cross reference file, go to [Practice Partner directory folder]\\Interface\BillingBridge\DemSch\CrossRef and open the DemSch_Pvid.ref in NotePad or WordPad. When you open this file, you will see a series of entries, for instance in a three doctor practice:

MM471 | MM4

JM875 | JM8

WW934 | WW9

The first entry for each line is the Provider ID in the practice management system. The second entry for each line is the Provider ID in Practice Partner.

Both items, when combined, create a mapping and this mapping is used by the applications to accurately transfer or map data between the systems. In this example, the relationship is one to one. Each of the three provider IDs in practice management application match a single provider ID in Practice Partner.

## Variation of a one-to-one mapping example

Another variation of a one-to-one mapping is the following:

MM471 | MM4

MM571 | MM5

MM671 | MM6

In this example, the provider in the practice has three provider IDs (multiple provider records); however, each of these provider IDs is mapped to a specific provider ID in Practice Partner (also multiple provider records in Practice Partner).

## Multiple mappings example

If the cross reference file looks like this example below, the practice is set up using a multiple-to-one mapping:

MM471 | MM4

MM571 | MM4

MM671 | MM4

In this example, there are three provider IDs in the practice management application for a single provider and the IDs are mapped to one provider ID in Practice Partner.

## Billing mappings

Check your mappings in the Billing cross reference file (BillCode_Pvid.ref) to determine your mapping status. Your Billing mappings must be the same as your Dem Sch but in reverse order; that is, the Practice Partner provider IDs appear first, followed by the practice management provider IDs.

To check the Billing cross reference file, go to [Practice Partner directory folder]\\Interface\BillingBridge\BillCode\CrossRef and open the BillCode_Pvid.ref in NotePad or WordPad. Compare these mappings to the mappings in the Dem Sch.

If you want to interface Race, Ethnicity, and Relationship to Insured (new for Medisoft 18), you will need to create new cross reference files.

For Race, create DemSch-Race.ref with this configuration:

C | White

B | Black

I | Indian/Alaska

A | Asian

E | Other

P | Pac Isle

D | Declined

For Ethnicity, create DemSch-Ethnicity.ref with the following values:

N | Non-Hispanic

H | Hispanic

D | Declined

For Relationship to Insured, create DemSch_InsRel.ref with a configuration something like the following:

Self | S

Spouse | O

Child | C

Other | O

The following table provides a summary:

| Mapping relationship between DemSch and Billing cross reference files | Candidate for automate provider mapping | Description |
|---|---|---|
| | | |

| 1 to 1 | Yes | Do not modify the DemSch or Billing cross reference files once you have used automate provider mapping. During the initial provider data initialization process, the original cross reference files for DemSch and Billing are renamed as a precaution to the following format: _Original.TXT. |
| --- | --- | --- |
| 1 to many | no | Do not use automate provider mapping if multiple provider IDs exist and are mapped to one provider ID in the EMR. |

# Using Automate Provider Mapping

To use this feature to manage your provider updates, follow the steps for configuring your connection (see "Configuring a connection" on page 25), making sure to select the Automate Provider Mapping check box on the Settings screen. When you perform the steps for initializing data (see "Initializing data" on page 30) and send your providers, MPIC will map provider records in the practice management system to those in the EMR.

# Appendix C - Configuring Mirth for a Remote Server

If the following conditions apply, you must configure the Mirth service to run under a user account that has access to the folders on the remote server.

- You are using CGM MEDISOFT Clinical or CGM LYTEC MD

- You are running CGM MEDISOFT Clinical/CGM LYTEC MD on a different server than Mirth/ MPIC

To configure Mirth:

1. From the computer where Mirth is running, click Start, point to All Programs, point to Administrative Tools, and select Services.

2. Double-click Mirth Connect Service. The Mirth Connect Service Properties screen appears.

3. Click the Log On tab. The Log On tab appears.

4. Select the This account option.

5. Enter a user account and password that has access to the folders on the remote server. The account can be a domain account or a local account on the remote server.  To use a local account, you must create an identical user ID and password on both the Mirth server and the remote CGM MEDISOFT Clinical/CGM LYTEC MD server where the folders reside.
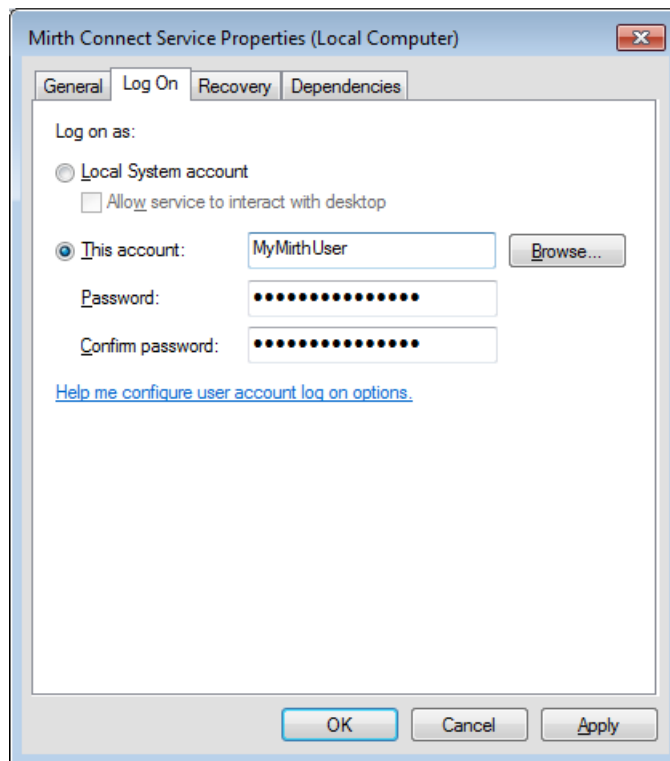
*Figure 33.  Mirth Connect Service Properties (Local Computer) screen*

6. Click the **OK** button.

7. Restart the Mirth Connect service.

# Appendix D - Installing SQL Server Express

If you are installing MPIC and using CGM MEDISOFT (on a domain controller or otherwise), you must install SQL Server Express manually prior to installing MPIC. To install SQL Server, follow these steps.

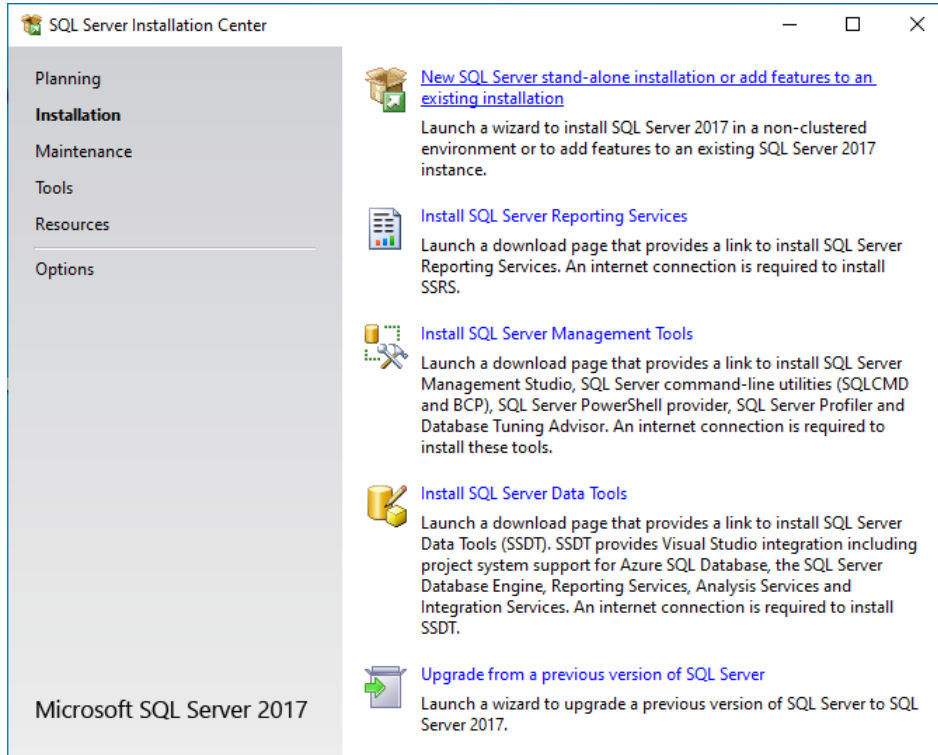1. After you download the installation file, run Setup.exe.



*Figure 34.  SQL Server Installation Center screen*

2. Select New SQL Server stand-alone installation or add features to an existing installation.

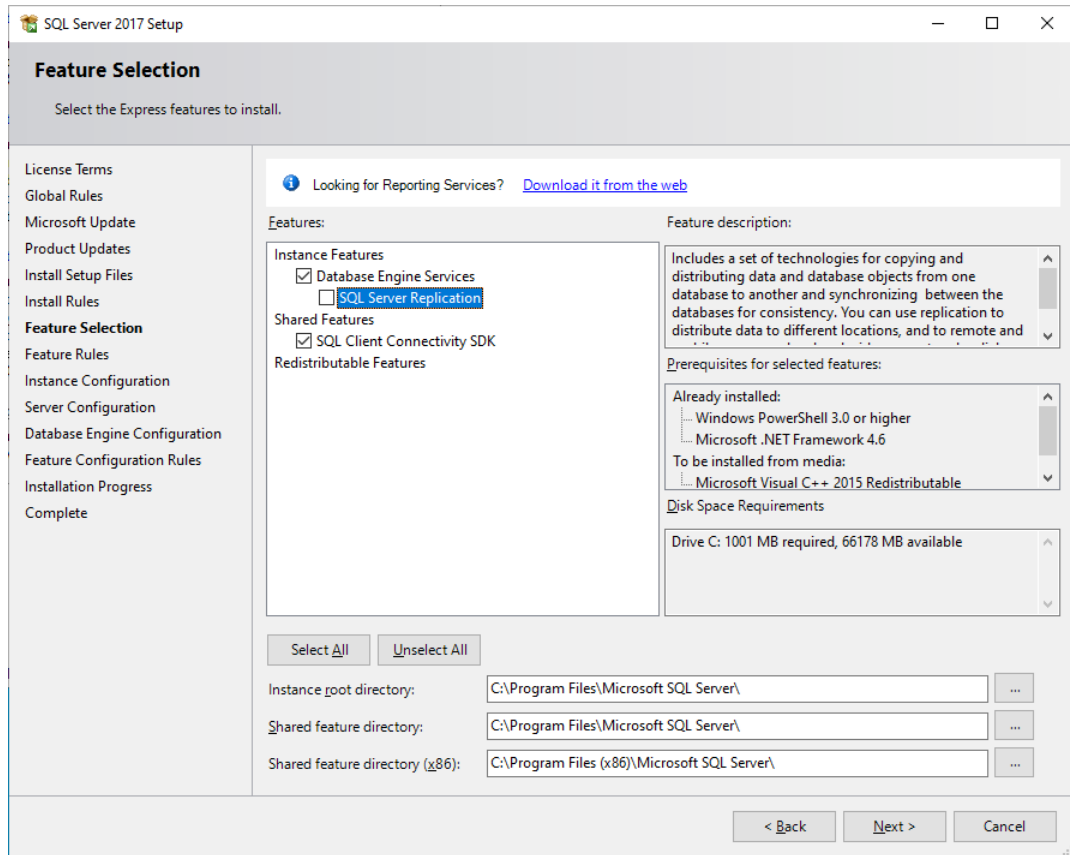3.  Click Next until you see the Feature Selection screen. SQL Server Replication is not required.



*Figure 35.  Feature Selection screen*

4. Click Next until you see the Instance Configuration screen. Select the Named instance option, and change the instance name to "MPIC."
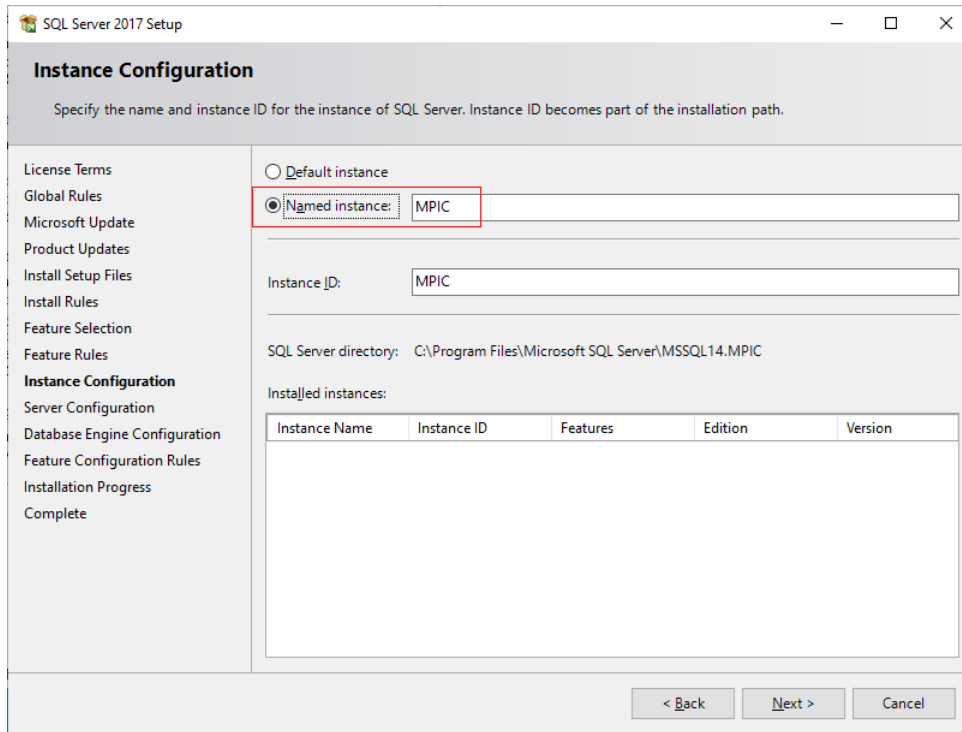


*Figure 36.  Instance Configuration screen*

5. Click Next. The Server Configuration screen appears. Make sure that SQL Server Browser has Startup Type of Automatic.
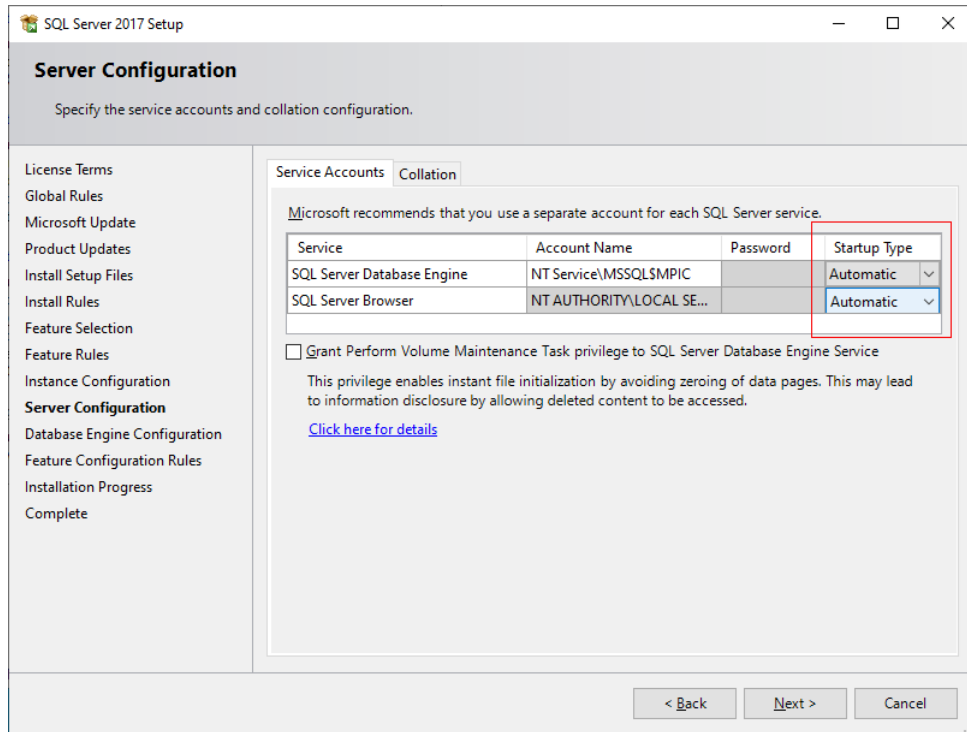


*Figure 37.  Server Configuration screen*

6. Click Next. The Database Engine Configuration screen appears. Make sure that Authentication Mode is Mixed Mode.  Enter a password to use for the "sa" account. You will need to enter this later in MPIC. You are also required to add at least one Windows user

account under "Specify SQL Server administrators". This account is required by SQL Server but not used by MPIC.
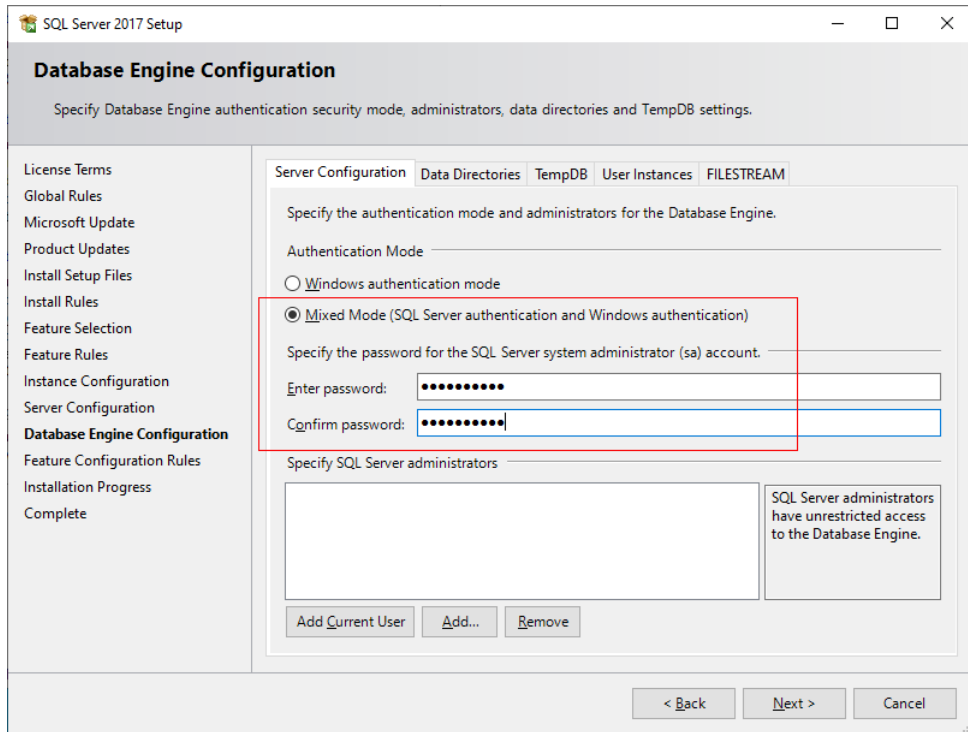


*Figure 38.  Database Engine Configuration screen*

7. Click Next until the installation is complete.