# MCB GoldLink to 3CX User's Guide 4.0

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Welcome to MCB GoldLink to 3CX! This *User's Guide* explains how to set up and use GoldLink. Let's start with a brief review of its features and system requirements.

# 1. Features

GoldLink to 3CX offers several key features to streamline your phone calls.

## Auto-Dial Outbound Calls

Want to call a number in GoldMine? In GoldMine, just right-click and choose **Dial Phone**. Your desk phone rings immediately and you hear hold music while 3CX completes the call.

## Find GoldMine Records Using CallerID

Receiving a call from someone already in GoldMine? Every time you receive a call, GoldLink searches GoldMine's primary and additional contacts for a record matching the CallerID. You have the option of seeing the record in the current GoldMine window or in a new window.

## Add GoldMine History

Whether making or receiving calls, it's important to keep a record. GoldLink makes it easy, automatically adding a GoldMine history record to the proper contact. GoldLink optionally opens the Complete a Call dialog so you can add notes while you talk on the phone.

## Link to 3CX Recordings

If you're using the 3CX feature to record all your phone calls, you can set up GoldLink to add a link to the recording in the corresponding call history record. This allows you to quickly find and review call recordings associated with GoldMine history. (Of course, it's up to you to make sure call recording is allowed.)

## 2. System Requirements

The MCB GoldLink to 3CX program is updated more often than this document. For current system requirements, see the GoldLink product page online at [www.mcbsys.com/goldlink](www.mcbsys.com/goldlink).

GoldLink has been tested with 10-digit North American phone numbers. Under certain circumstances, GoldLink may work with variable-length numbers in other parts of the world—contact MCB Systems for details.

While we can't guarantee compatibility with your program versions and environment, we offer a 30-day free trial so you can try it for yourself!

# 3. Before Installing GoldLink

MCB GoldLink to 3CX must be locally installed on each computer where you run GoldMine. GoldLink relies on 3CX components. You must install 3CXPhone for Windows before installing GoldLink. If you haven't already, install 3CXPhone as described below.

3CX provides a custom softphone called 3CXPhone for Windows that integrates with the 3CX server to provide softphone capabilities as well as call logs, presence information, and other features.
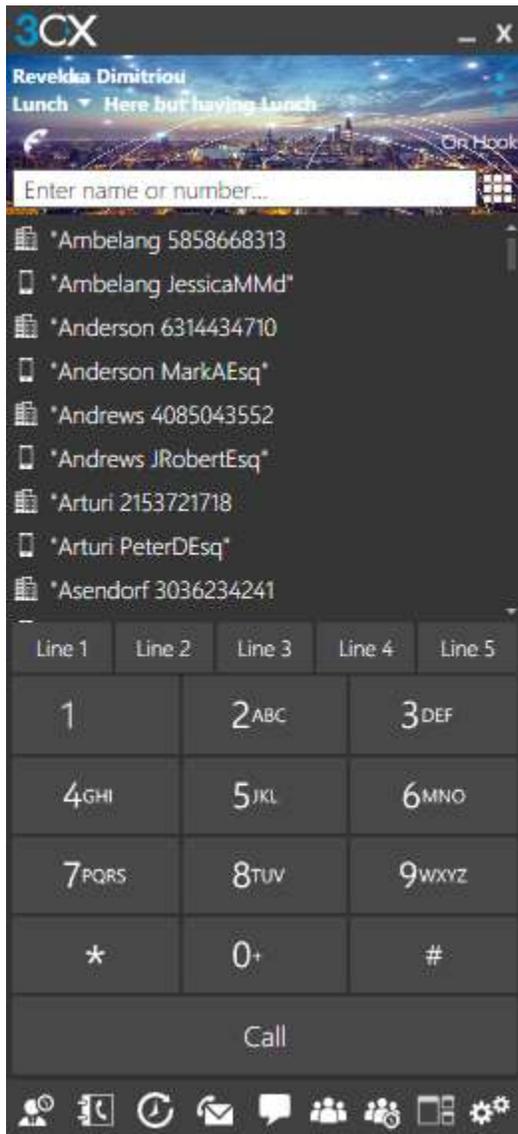


Follow the instructions here to install and provision 3CXPhone:

http://www.3cx.com/user-manual/installation-windows/

When 3CXPhone is running, you'll see this icon in your system tray:

# 4. Installing GoldLink

Follow these steps to install MCB GoldLink to 3CX:

1. Start GoldMine.
2. Download and run the current setup program for MCB GoldLink to 3CX from www.mcbsys.com/goldlink. (If you are updating to a newer version, you do not need to uninstall your old version first.)
3. Complete the installation as usual. Be sure to review the license agreement.
4. When the installation completes, GoldLink starts automatically. See "Configuring GoldLink" below.

**Note** Due to a limitation in GoldMine, GoldLink must be installed in a path that does not contain spaces. The default path is `C:\GoldLinkTo3CX`.

If you get an "Access is denied" error during installation, your anti-virus may be blocking the install. See "Access Denied Error During Installation" on page 28.

## 3CX Command Line API Plugin

If the GoldLink installer detects that you 3CXPhone for Windows is installed, the installer will also install the 3CX Command Line API Plugin, which is a 3CXPhone for Windows add-on that allows GoldLink to integrate with 3CX. If 3CXPhone was not already installed when you installed GoldLink, the Command Line API Plugin will not be installed. **Please install 3CXPhone before installing GoldLink.**

## Uninstalling GoldLink

To remove GoldLink, open Control Panel, then **Programs** > **Uninstall a program**. Highlight **MCB GoldLink to 3CX** and uninstall it. If the 3CX Command Line API Plugin is installed, it will also be removed.

# 5. Configuring GoldLink

GoldLink normally runs in the background each time you make or receive a call. However if you start GoldLink from the Windows Start menu, you will see a configuration screen where you can set up how GoldLink interacts with GoldMine and 3CX.

## Running GoldLink for the First Time

The first time you run GoldLink, you will receive up to three prompts asking your permission to configure GoldMine to use GoldLink for outbound dialing.

1. Start GoldMine.
2. Start MCB GoldLink to 3CX.
3. You must answer **Yes** to each question to be able to use GoldLink:

MCB GoldLink to 3CX

Okay to set GoldMine to "Dial numbers as entered" instead of formatting using TAPI? This is required for outbound dialing via 3CX.

Yes     No

MCB GoldLink to 3CX

Okay to define a dummy modem in your GoldMine <user>.INI file? This is required for outbound dialing via 3CX.

Yes     No

MCB GoldLink to 3CX

Okay to add a DDEDial instruction to your GoldMine <user>.INI file? This is required for outbound dialing via 3CX.

Yes     No

4. After allowing those changes, you will be asked to close and re-open GoldMine. Click **OK** to finish starting GoldLink.



5. Close and re-start GoldMine.

## Setting GoldLink Options

When you start GoldLink from the Windows Start menu, you will see a configuration screen with several tabs. Each tab is explained in detail in the following sections.

### GoldLink Tooltips

Note that if you hover the mouse over an option, a brief explanation of the option pops up on a yellow background:

## General tab

Settings on this tab apply to GoldLink in general.
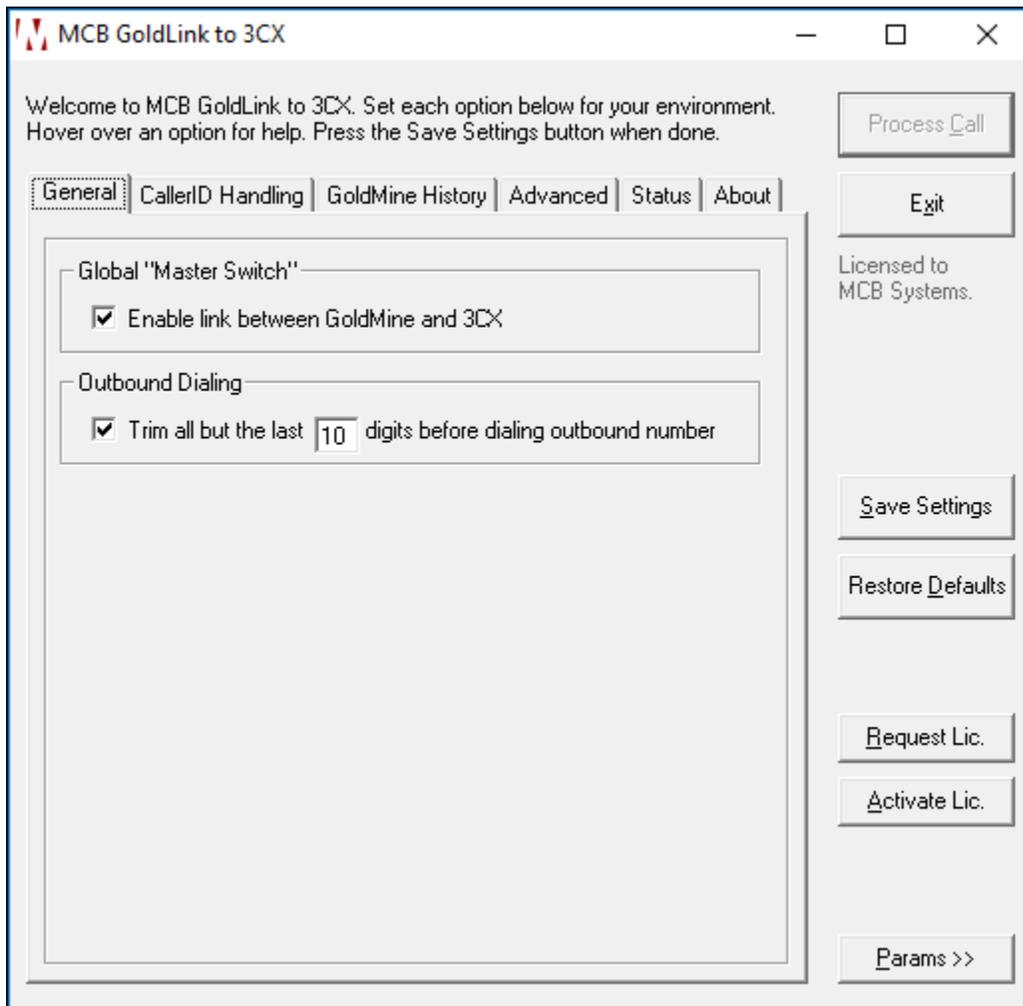


## Global "Master Switch":  Enable link between GoldMine and 3CX

The master "on-off" switch for GoldLink to 3CX.

Uncheck this box to turn off all interaction between GoldMine and 3CX. Click **Save Settings**.

Check the box to re-enable GoldLink (you will be prompted to restart GoldLink).

## Outbound Dialing:  Trim all but the last 10 digits before dialing outbound number

If your GoldMine setup is configured to add a prefix to outbound calls (perhaps through PREDIAL.INI), this option allows you discard all but the *last* x digits received from GoldMine. A "digit" is a phone keypad digit:  1-9, *, or #. Other characters in the phone number (parentheses, dashes) are not counted. This option is enabled by default and set to dial only the last 10 digits received from GoldMine. Outside North America, you may want to uncheck this box so longer numbers will be retained.

### CallerID Handling tab

Settings on this tab determine how GoldLink handles CallerIDs.
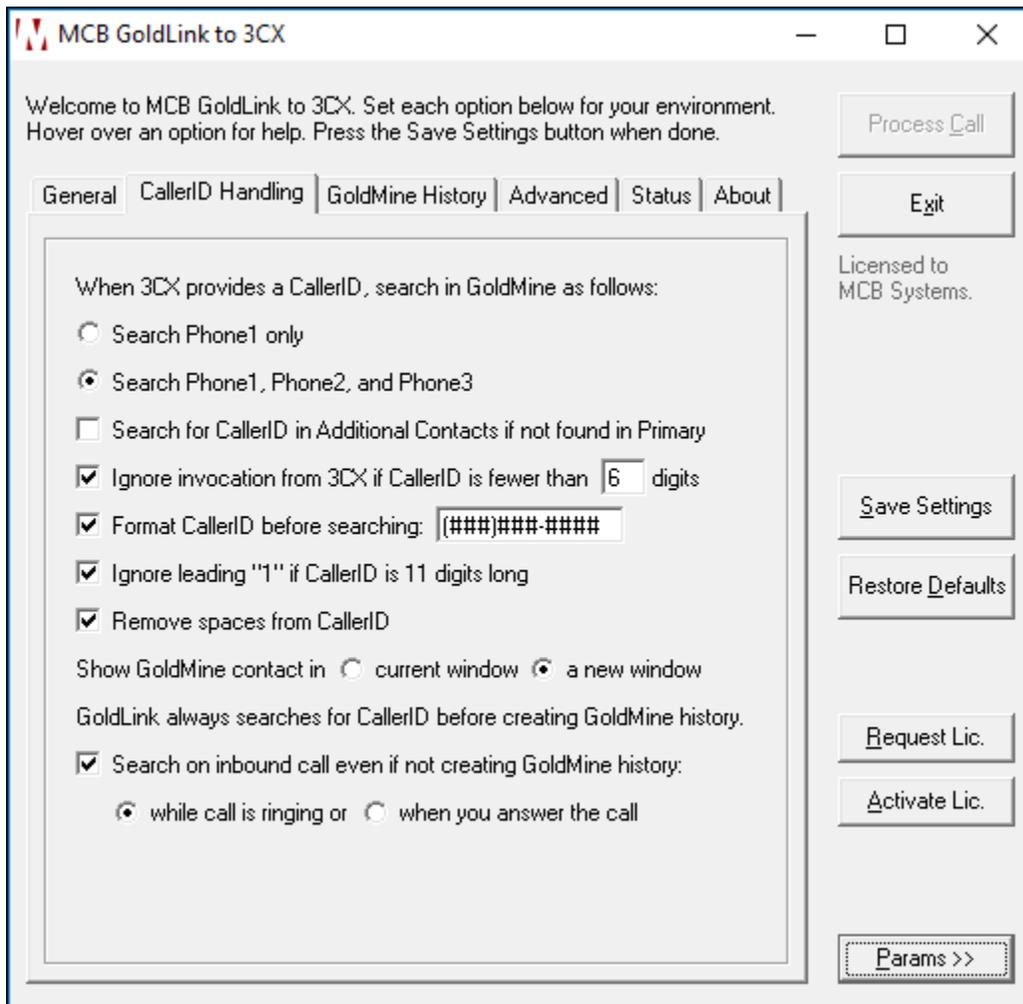


Search Phone1 only
Search Phone1, Phone2, and Phone3

You have the option of whether to search for CallerIDs only in the Phone1 field, or in all three phone fields.

Search for CallerID in Additional Contacts if not found in Primary

You can optionally ask GoldLink to search through all of your additional contacts if it can't find the CallerID in the primary contact. Note that in order for this to work efficiently, you must add an index to your database. See the section "Indexing Additional Contacts."

Ignore invocation from 3CX if CallerID is fewer than 6 digits

3CX invokes GoldLink several times while processing the start, connection, and end of a call. Some of these invocations are about calls to 3CX extension or trunk numbers (typically two to five digits). Normally you would not want to search for these in GoldMine, so this option allows excluding short CallerIDs. Note that GoldLink always excludes non-numeric CallerIDs.

## Format CallerID before searching

This "format string" can add parentheses and dashes to a number before searching for it in GoldMine. All non-numeric characters are removed before the formatting is applied. If your phone numbers do not follow a consistent format, you can uncheck this option to bypass the formatting. Normally this will be checked in North America and unchecked elsewhere.

## Ignore leading "1" if CallerID is 11 digits long

If the CallerID received from 3CX includes a leading "1" (common with North American phone numbers), and there are a total of 11 digits, the leading "1" is removed before applying the formatting and searching in GoldMine. This allows it to match GoldMine's USA-Format numbers that omit the leading "1". Normally this will be checked in North America and unchecked elsewhere.

## Remove spaces from CallerID

If 3CX passes spaces in the CallerID but numbers in GoldMine omit spaces, check this box to remove the spaces before searching in GoldMine. UNcheck the box to retain the spaces. Normally this will be checked in North America and unchecked elsewhere.

## Show GoldMine contact in current window / a new window

When GoldLink finds a GoldMine record using the CallerID, it can either show the record in the current GoldMine window (which might unexpectedly take you away from a GoldMine record you are working on) or in a new GoldMine window.

**Note** Due to a GoldMine limitation, if your GoldLink is configured to open the contact in **a new window** and the CallerID is found in an *additional* contact, GoldLink will only be able to open a new window if the *primary* contact has its first Phone field (Phone1) filled in. If many of your records have no Phone1, consider using GoldLink's **current window** setting.

## Search on inbound call even if not creating GoldMine history

Check this to enable searching by CallerID ("popping" the GoldMine record) on each incoming call. This is independent of the search that is done when creating GoldMine history, which may happen at the start, connection, or end of a call (see the "GoldMine History tab" section). Uncheck this box to disable this search on each inbound call.

## while call is ringing or / when you answer the call

These radio buttons determine whether you want to search for an inbound CallerID while the call is still ringing, or only after you answer the call. Most users will want to find the GoldMine record before answering the call, so choose **while call is ringing**. However, users in a ring group, where many phones ring on the same call, will probably want to choose **when you answer the call** so that GoldMine will only change records for the user who answers the call.

## GoldMine History tab

Settings on this tab determine how GoldLink creates GoldMine history records of incoming and outgoing calls. Note that history processing works even if you manually dial your phone.
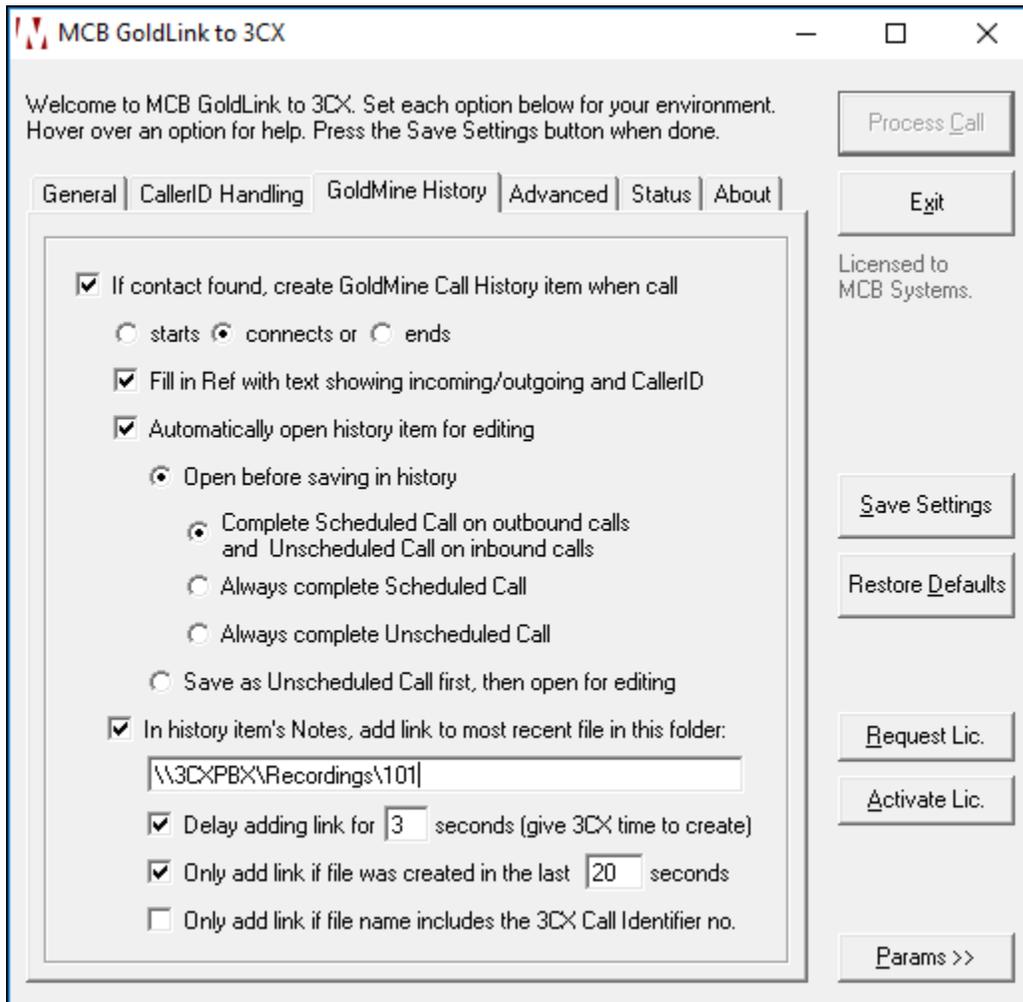


### If contact found, create GoldMine Call History item when call

Check this box to create GoldMine history records of incoming *and* outgoing calls. Note that in order to create GoldMine history records, GoldLink must first be able to find the contact using the CallerID.

### starts / connects or / ends

These radio buttons determine whether you want to create the GoldMine history record when the call starts (is ringing), is connected (is answered), or ends (is disconnected). Choosing **start** or **ends** will create a history item even if the call is not completed.

### Fill in Ref with text showing incoming/outgoing and CallerID

Check this box to automatically fill in the history's Ref field with information about the call, for example, "Connected outgoing call to (619)523-0900." If the Ref field already contains text (if you are completing a scheduled call), this information is instead inserted at the beginning of the history's Notes.

### Automatically open history item for editing

Check this box to have GoldMine to open the history item for editing so you can work on it during the call. If this box is unchecked, GoldLink always creates an unscheduled call history item, which you can open and edit manually.

### Open before saving in history

If you select **Open before saving in history**, GoldMine opens the Complete Call dialog *without* first creating a history item. This has three advantages:

- You can specify whether to complete a scheduled or unscheduled call.
- If you don't want to create a history record for this call, you can simply click on **Cancel**.
- If you use the **Opportunities / Project** drop-down list, only *active* opportunities or projects are listed.

**Some Notes on Workflow** There are three sub-options for determining the type of call to complete. Choose the one that most closely matches the way you normally work.

If you schedule calls in GoldMine, most often you will want to complete a scheduled call when you are the one making the call (outbound). However if someone calls you (inbound), it may well be about some new topic, so you want to treat that as an unscheduled call, leaving scheduled calls in your calendar. If this describes your workflow, choose **Complete Scheduled Call on outbound calls and Unscheduled Call on inbound calls**.

If you prefer, you can instead tell GoldLink to **Always complete Scheduled Call** or **Always complete Unscheduled Call**.

Keep in mind that if GoldMine opens a scheduled call and you would rather treat it as an unscheduled call or vice versa, you can always click **Cancel** in the call dialog and complete the call manually in GoldMine.

## Complete Scheduled Call on outbound calls and Unscheduled Call on inbound calls

This option tells GoldMine to complete a scheduled or unscheduled call depending on whether this is an outbound or inbound call. See the next two options for notes on exactly how GoldMine creates scheduled and unscheduled calls.

## Always complete Scheduled Call

This option tells GoldMine to complete a scheduled call. The behavior is the same as when you select **Complete > Scheduled Call…** from the GoldMine menu:

- If no calls are scheduled for the contact, an empty call dialog appears.
- If one call is scheduled for the contact, its Ref and Notes fields are copied to the call dialog. When you click **OK**, the history item is created and the pending call is removed from the calendar.
- If multiple calls are scheduled for the contact, GoldMine pops up a window asking you to choose which call to complete. That call's Ref and Notes fields are copied to the call dialog. When you click **OK**, the history item is created and the pending call is removed from the calendar.

In all cases, GoldMine assigns an **Activity** type of Call Back. You can change this manually to Call In or Call Out.

## Always complete Unscheduled Call

This option tells GoldMine to always complete an unscheduled call, which means an empty call dialog.

- If GoldLink is processing an inbound call, the behavior is the same as when you select **Complete > Unscheduled Call > Incoming Call…** from the GoldMine menu. GoldMine assigns an **Activity** type of Call In.
- If GoldLink is processing an outbound call, the behavior is the same as when you select **Complete > Unscheduled Call > Outgoing Call…** from the GoldMine menu. GoldMine assigns an **Activity** type of Call Out.

## Save as Unscheduled Call first, then open for editing

If you select **Save as Unscheduled Call first, then open for editing**, GoldMine creates a history record for the call, *then* opens it for editing. This has the advantage of creating a history record for *every* call. However, this option does not allow completing a scheduled call. Also, if you use the **Opportunities / Project** drop-down list, because you are now editing an existing history record, GoldMine lists *all* of the opportunities and projects, whether active or not.

### In history item's Notes, add link to most recent file in this folder

When checked, GoldLink will search in the specified folder for the newest file and insert a link to that file in the history record's Notes field. If there is already text in the Notes field, the link is inserted before the existing text.

**Note** File links from GoldMine work in Internet Explorer. Other browsers may have issues.

This option is most commonly used if you have set up 3CX to record all calls, in which case the folder will be a special folder on your 3CX server ending in your extension number. For example, if your 3CX server is named **3CXPBX**, and if recordings are accessible from the **Recordings** share, and if your extension is **101**, the path name would be `\\3CXPBX\Recordings\101`. Note that this must be configured separately on each person's computer. If GoldLink tells you that it cannot find the folder, first try typing the path name into Windows Explorer.

**Caution** Call recording is usually only legal under certain conditions, if at all. Consult your attorney.

### Delay adding link for x seconds (give 3CX time to create)

Depending on the performance of your 3CX server, your local computer, and your network, you may find that GoldLink is searching for the recording file before 3CX has finished creating it. This gives you the option of waiting a few seconds before GoldLink looks for the file. Note that this will delay creating the history record and opening the record for editing. By default, this option is checked and set to 3 seconds.

### Only add link if the file was created in the last x seconds

This serves as a "double-check" to make sure that GoldLink is finding the current recording file. If you were to disable recording on the 3CX server, the newest recording file might be a week or a month old. With this option set, this old file will not be linked to each new call. By default, this option is checked and set to 20 seconds.

**Important** For this work correctly, the clock on each workstation must be synced with the clock on the 3CX server.

### Only add link if the name includes the 3CX Call Identifier no.

Every call in 3CX has a Call Identifier number. If you are linking to 3CX recordings, the Call Identifier appears in parentheses at the end of the file name. For example, consider file name:

```
[MCB Systems]_110-6195551212_20170313215558(9).wav
```

This recording is for Call Identifier 9, made by extension 110 on March 13, 2017 at 9:55:58pm GMT (215558).

If this box is checked, GoldLink will only link the file if the file name includes the current CallID. Note that after an attended transfer, the CallID provided by 3CXPhone to GoldLink may not match the CallID in the recording file name. Since CallID is not always reliable for verifying the recording file name, this option is unchecked by default.

## Advanced tab

Settings on this tab specify advanced GoldLink options.
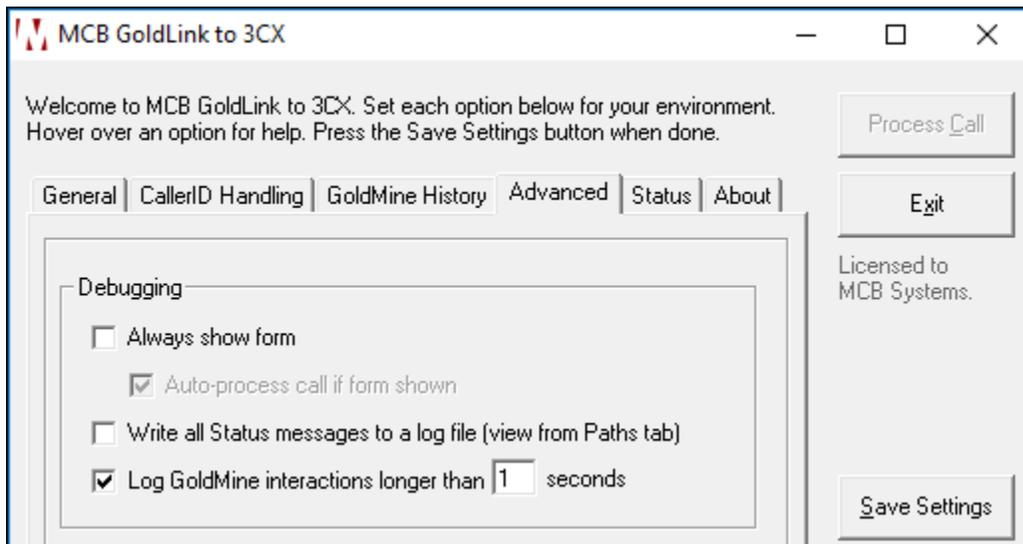


### Always show form

Normally, the GoldLink form (that is, its user interface) will not appear when processing calls. Checking this box causes the form to appear every time you call out from GoldMine, or whenever 3CX sends a start, connect, or end call event. Only check this box for troubleshooting purposes.

### Auto-process call if form shown

Normally, if GoldLink is called by GoldMine or 3CX, it immediately processes the call (searching by CallerID and creating GoldMine history). If you uncheck this box, the form will appear but the call will not be processed automatically. This can be useful to see what instructions are being received by GoldLink without actually acting on them. You can click on the **Process Call** button to process the call.

### Write Status messages to a log file (view from Paths tab)

When checked, the messages that appear on the Status tab are also written to a file. This option should only be enabled for troubleshooting, as the log can grow quite large. The log file is saved in the Application Data folder that is shared by all users on your computer:

```
C:\ProgramData\MCB Systems\GoldLinkTo3CX\GoldLinkTo3CX.log
```

To open the file, in GoldLink, click on the **Params** button, then on the **Paths** tab, look for **Path to this program's log file**. You can delete this log file whenever you want; it is not required by GoldLink. However be careful not to delete the `.lic` (license) file saved in the same folder!

### Log GoldMine interactions longer than x seconds

GoldLink uses the Microsoft Component Object Model (COM) to communicate with GoldMine. COM interactions should normally take a fraction of a second. If a COM "call" takes over one second (by default), it is logged in the log file. These log entries can help support troubleshoot communication problems.

## Status tab

This tab shows details about the interaction between GoldMine, GoldLink, and 3CX. Normally you will only need to review this information for troubleshooting purposes. You will only see the **Status** box during automated call processing if **Always show form** is checked.
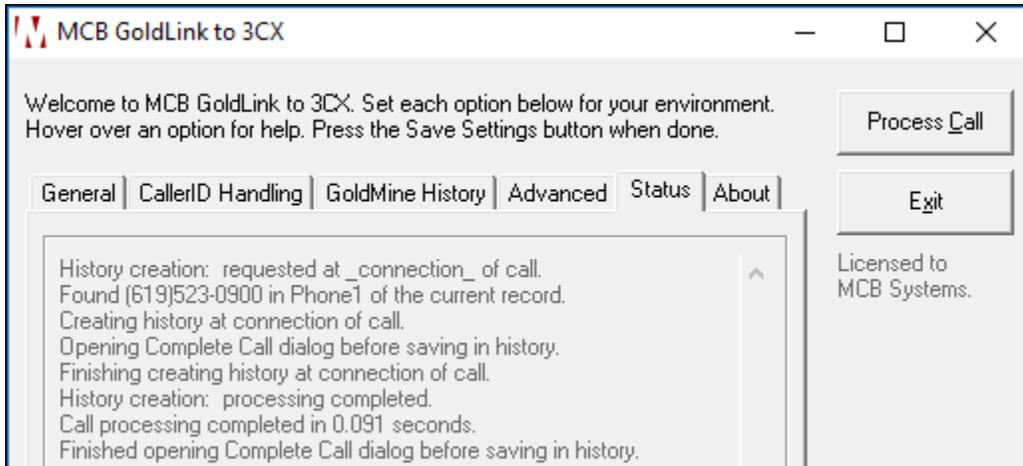


## About tab

This tab shows program version and copyright information.

## Program Buttons

There are several buttons down the right side of the window.

### Save Settings

Click this button to save your configuration settings so they will be used when GoldLink is invoked by GoldMine or 3CX.

### Restore Defaults

Click this button to restore the program's default settings.

### Process Call

If parameters have been supplied to the program, press this button to act on them.

### Exit

Press this button to exit the program. If you have unsaved configuration changes, you will be asked whether you want to save them.

### Request Lic.

See "Requesting and Activating a GoldLink License" below.

### Activate Lic.

See "Requesting and Activating a GoldLink License" below.

### Params

Click this button to open or close the "Parameters" part of the program window. The values on the Parameters tabs are filled in automatically when GoldLink is invoked from GoldMine (for outbound calls) or from 3CX (for inbound and outbound calls). For testing and troubleshooting, you can fill in values manually and process the call by pressing the **Process Call** button.

## Configuring GoldLink for Use Outside North America

Some of GoldLink's defaults assume that you are working with fixed 10-digit phone numbers formatted in GoldMine as (nnn)nnn-nnnn. When that is not the case, you can configure GoldLink to work with longer, unformatted numbers.

### GoldMine Configuration

In GoldMine, the record must be configured to format its numbers in a "Non-USA Format". When adding a record, you can specify this by checking **International Phone Format**:



You can view or change the setting for the current record from **Edit > Record Properties > Record-related Settings**:



### GoldLink Configuration

To allow GoldLink to process long, unformatted numbers, make the following adjustments to your GoldLink settings:

On the **General** tab, uncheck **Trim all but the last n digits before dialing outbound number**:
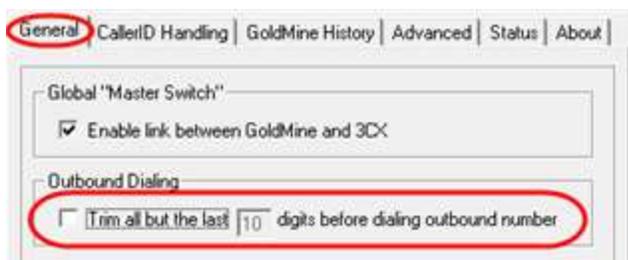
On the **CallerID Handling** tab, uncheck the following settings:

- **Format CallerID before searching**
- **Ignore leading "1" if CallerID is 11 digits long**
- **Remove spaces from CallerID**
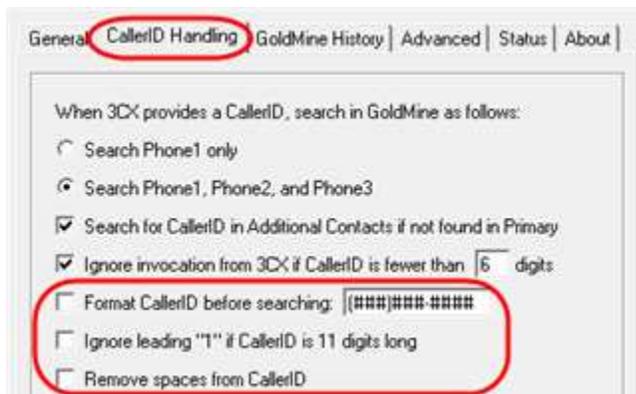
Click **Save Settings** to save these changes so they apply to future calls.

## 3CX Configuration

GoldMine and GoldLink are now configured to pass unformatted numbers back and forth between GoldMine and 3CX. This has two implications:

- When you dial from GoldMine, 3CX must be able to handle the number as formatted in GoldMine.
- When you receive an incoming call, in order for GoldLink to find the contact in GoldMine, the CallerID passed in from 3CX must exactly match the format in GoldMine.

Depending on your region and how your VoIP provider formats CallerIDs, you may need to use 3CX's Caller ID reformatting rules as explained here: https://www.3cx.com/docs/cid-reformatting/.

Keep in mind that international numbers may be formatted differently than domestic numbers. Be sure to test inbound and outbound domestic and international numbers as you decide how to store your numbers in GoldMine and as you configure your CallerID formatting rules.

Here is a helpful guide for U.K. numbers:
https://www.area-codes.org.uk/formatting.php

And a similar guide for Australia:
https://www.australia.gov.au/about-australia/facts-and-figures/telephone-country-and-area-codes

## Indexing Additional Contacts

In order for the GoldLink feature **Search for CallerID in Additional Contacts if not found in Primary** to be able to find Additional Contacts quickly, you will need to add indexes on the Additional Contacts' Phone and Fax fields ("Fax" is the legacy internal name now used for "Mobile"). This is only supported for Microsoft SQL databases.

**Note** Adding indexes is a database administration task and requires familiarity with Microsoft SQL administration tools. Provide these instructions to your database administrator.

Follow these instructions to add index on ContSupp's Phone and Fax fields to your database:

1. Ask users to log off GoldMine.
2. Back up your GoldMine database.
3. In SQL Management Studio, open the GoldMine database and navigate to the CONTSUPP table. Right-click on **Indexes** and select **New Index > Non-Clustered Index…**.
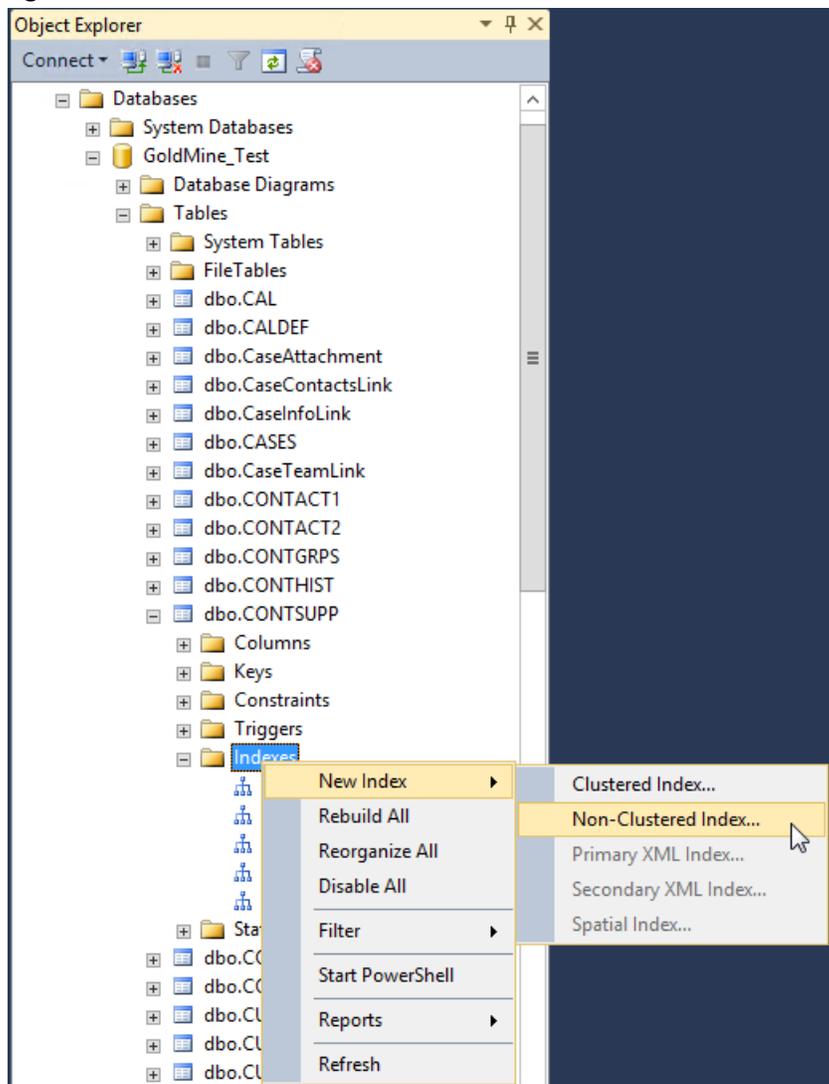
4. In the New Index dialog, give the index a unique name, for example **ContSupPhone**. Click on the **Add...** button and check the PHONE field. Click on **OK**, then **OK** again to create the index.
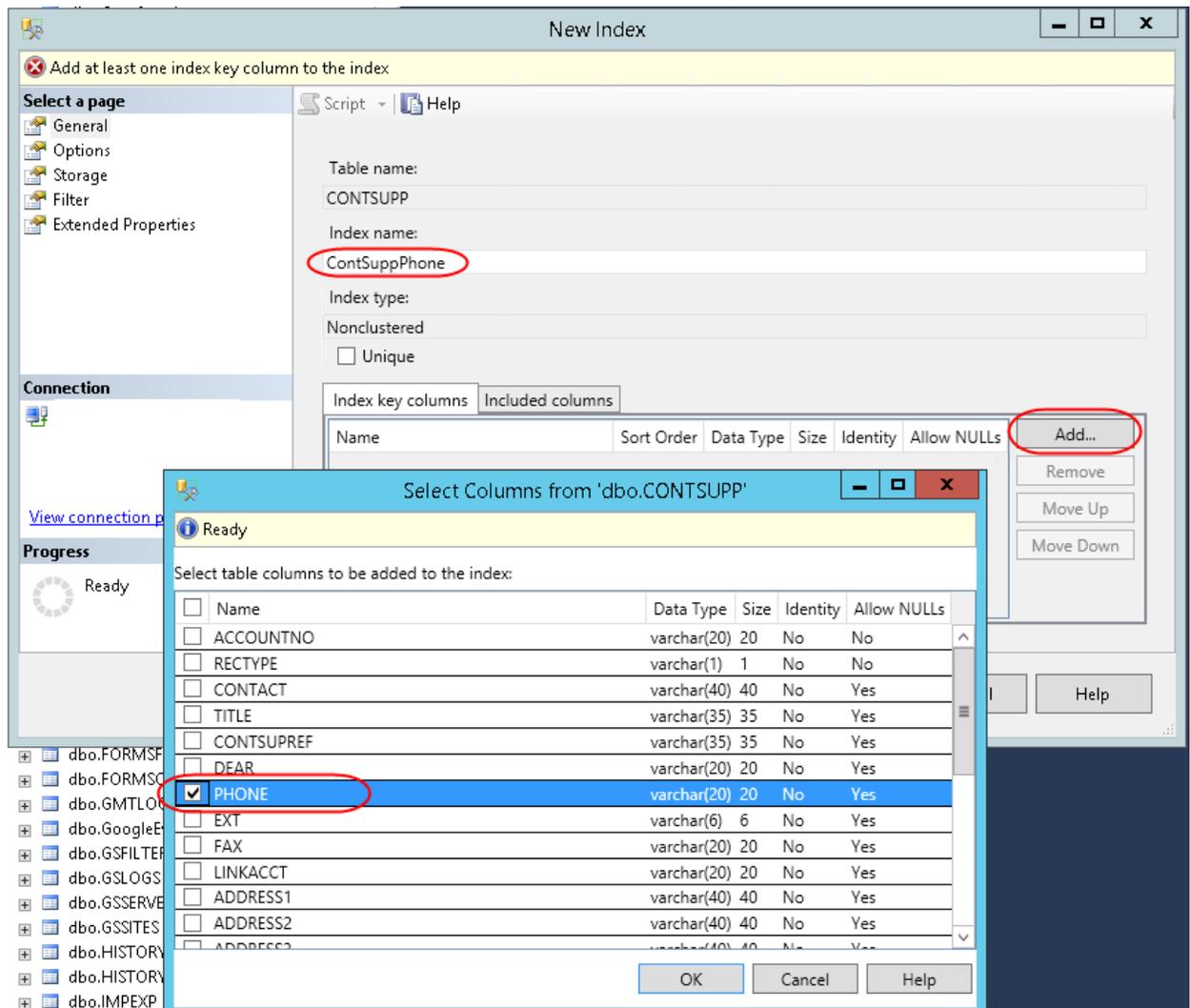


5. Repeat steps 3 and 4 to add the ContSupFax index on the FAX field.

If you prefer to work in Transact SQL, the following command will add the index:

```
CREATE NONCLUSTERED INDEX [ContSuppPhone] ON [dbo].[CONTSUPP]
     ( [PHONE] ASC )
ON [PRIMARY]

CREATE NONCLUSTERED INDEX [ContSuppFax] ON [dbo].[CONTSUPP]
     ( [FAX] ASC )
ON [PRIMARY]
```

**Note** Although indexing does not require exclusive access to SQL and does not change user data, it is always a good idea to create a SQL backup before modifying the database structure. Performance may slow down while the index is being built, which is why we recommend that users be logged out of GoldMine. How long that will take depends on your environment, but normally SQL should be able to index 10,000 records in a matter of seconds.

# 6. Using GoldLink

Once you have configured GoldLink and saved your settings, you will normally never see the GoldLink user interface.

## Outbound Dialing

To dial out from GoldMine via GoldLink and 3CX, find the contact you want to call in GoldMine, right-click on the appropriate phone number, and select **Dial Phone**:



You can also press Alt+1 to dial Phone1, Alt+2 for Phone 2, or Alt+3 for Phone3.

To dial an Additional Contact, right-click on the contact and select **Options** > **Dial:**
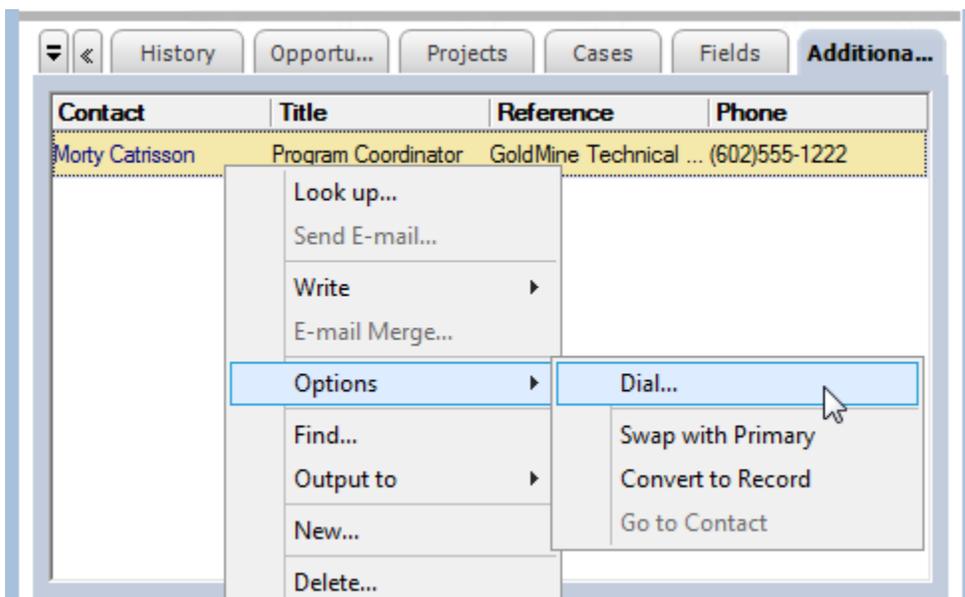


**Note** If the GoldMine record's properties specify that the contact uses USA Format numbers, the number must be at least 7 digits long to dial out through GoldLink. Non-USA Format numbers can be any length.

**Note** When the 3CXPhone software is in CTI mode (integrated with a desktop phone), the desktop phone will immediately ring with a caller ID of "Make Call". When you answer the desktop phone, you will hear hold music while 3CX dials the number. When the other party answers, you will be connected.

## Searching by CallerID on Incoming Calls

If you checked **Search for CallerID in GoldMine at the start of each incoming call** and the CallerID is found, GoldLink will position GoldMine to the matching record, either in the current window or in a new window. Here GoldMine searched for (619)523-0900 and when found, opened the contact in new window (tab):



You will also see a status message in the lower left corner of the GoldMine window:



If the CallerID cannot be found, you'll see a message like this:

# History Creation and Editing

Depending on how you have configured GoldLink, you may see a GoldMine Call History dialog appear, optionally with a link to a file. You can type additional notes and change other fields. Click on **OK** to save your changes:
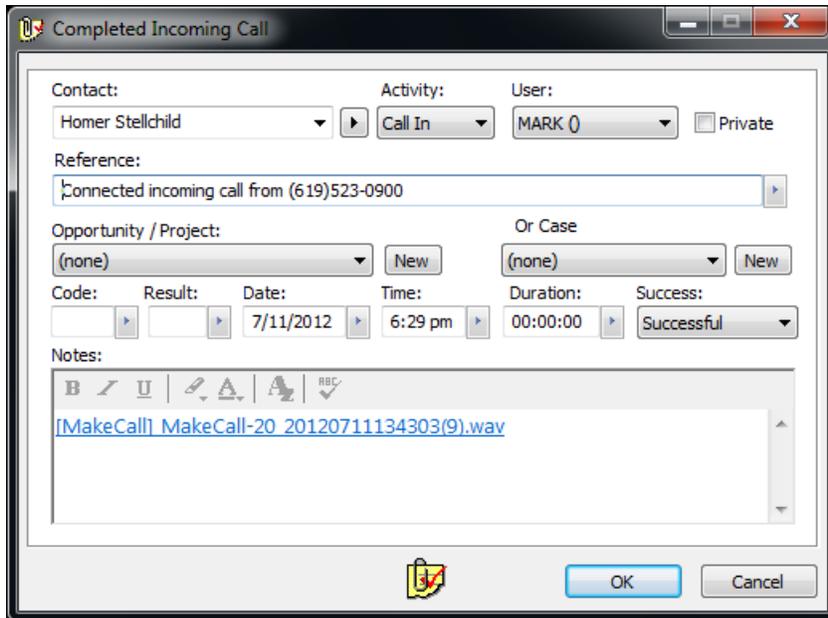


Once the history is saved, it will appear in the list of history records for that contact, optionally with a clickable link to a file in the **Preview** pane:
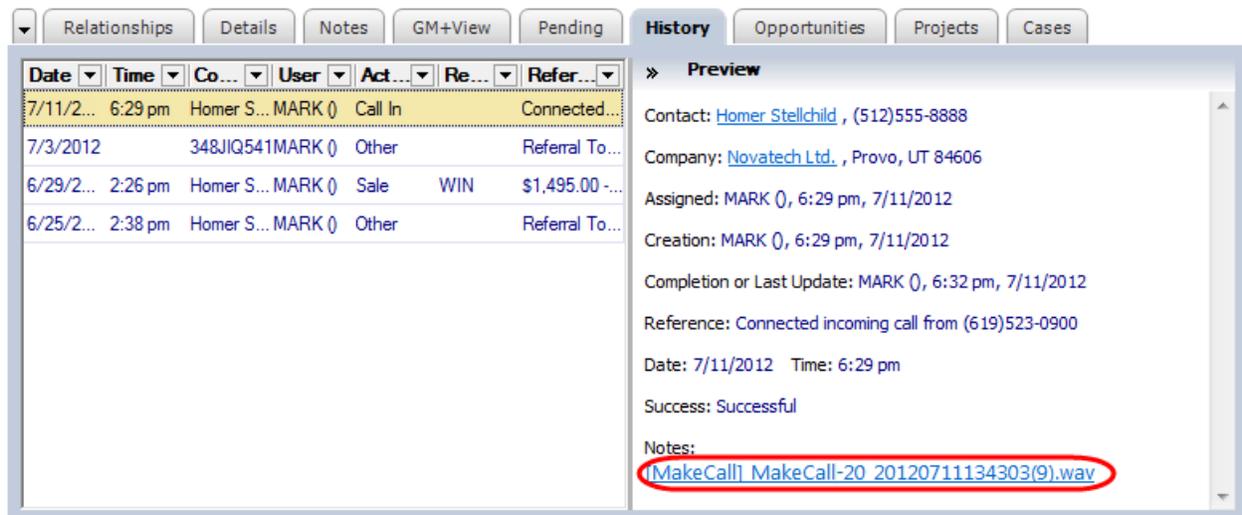


**Note** The file link is stored in the GoldMine history record's Notes field in HTML format. If you want to be able to edit history Notes using HTML formatting, in GoldMine, go to **Tools** > **Configure** > **System Settings** and choose the **Display** tab. Under **Notes Format**, select **HTML**, then click on **OK**.

**Note** File links from GoldMine work in Internet Explorer. Other browsers may have issues.

# 7. Requesting and Activating a GoldLink License

GoldLink runs in trial mode with full functionality for 30 days. After that, you must purchase a license to continue using GoldLink.

1. To request a license, click on the **Request Lic.** button. A message appears explaining the process:



2. Type in the name under which you want to register your license, and click on **OK**:
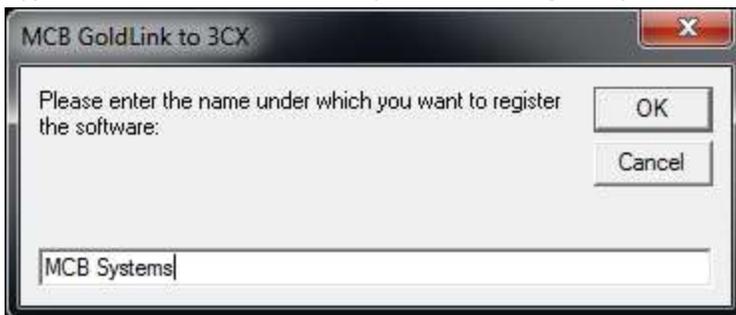


3. If you have an email program on your computer, a new email window will open containing a long string. Send this email to licenses@mcbsys.com:
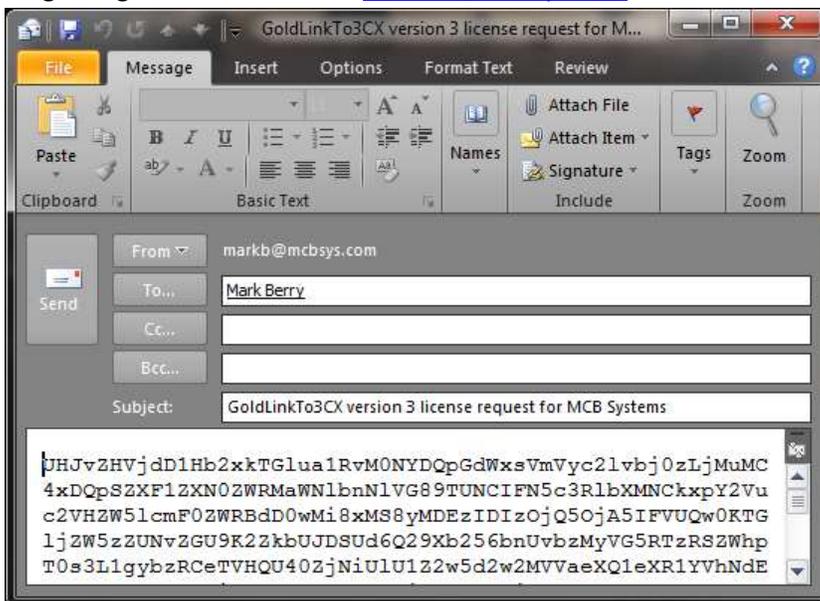


If you do not have an email program on your computer, a message appears telling you where to

find the license request file. Attach that file to an email and send it to [licenses@mcbsys.com](mailto:licenses@mcbsys.com):
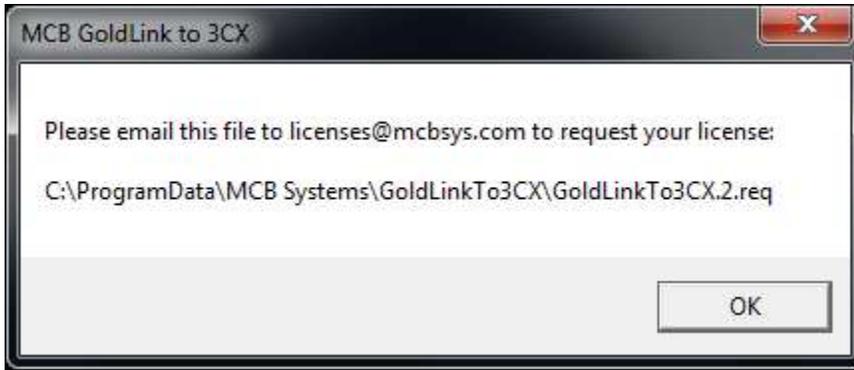


4.  Once payment is confirmed, MCB Systems will send back a long string of letters and numbers to use for activating your license. Click on the **Activate Lic.** button, paste the string into the box, and click on **OK**.
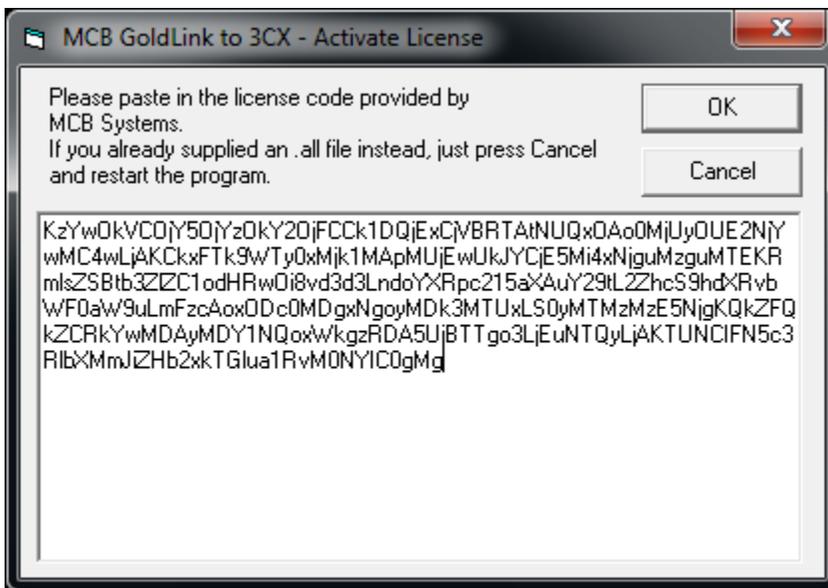


5.  A message will appear telling you that the license has been activated. Close and re-open GoldLink.

Once your license is activated, you will see "Licensed to" and your name below the **Exit** button:
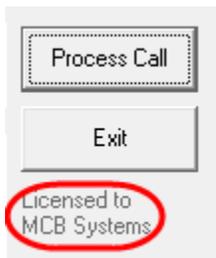
# 8. Troubleshooting

## Access Denied Error During Installation

If you get an "Access is denied (5)" error when installing GoldLink, it could be that your anti-virus program is incorrectly identifying one of the GoldLink components as a virus.
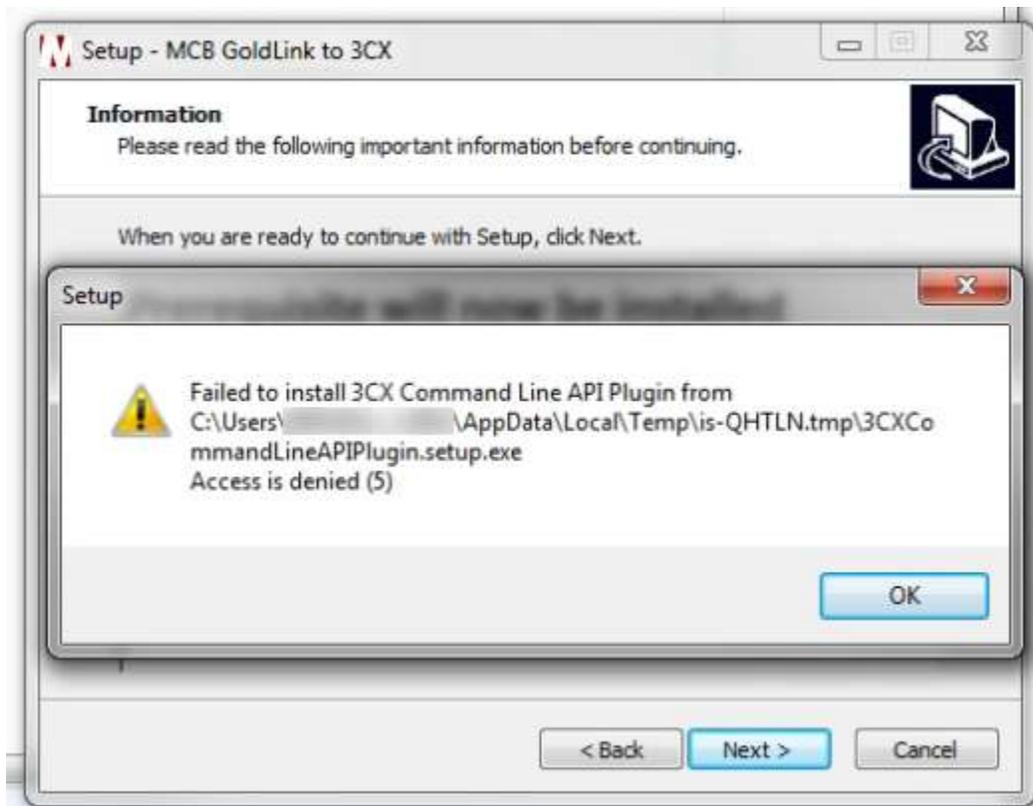


Check your anti-virus log and/or quarantine to determine if the anti-virus is the issue.

If the anti-virus is blocking the GoldLink installer, first, confirm that your installer is clean. One helpful resource is www.virustotal.com. You can upload the installer there to check it against over 60 anti-virus engines.

Once you know that you have a clean installer, use one of these methods to install GoldLink without interference from the anti-virus program:

- Temporarily disable the anti-virus program.
- Exclude the GoldLink installer from the anti-virus detection. (This may be difficult since the installer creates sub-tasks in a temporary folder.)
- Reboot the computer into Safe Mode, then install GoldLink.

If you do confirm that your anti-virus software was blocking the GoldLink installation, please let MCB Systems know so we can ask the anti-virus vendor to remove the false positive.

## Dial Menu Not Available in GoldMine

A GoldMine administrator can "lock down" access to menus for non-master users. The **Dial Phone** menus must be enabled to allow outbound dialing from GoldMine.

1. Log on to GoldMine as a master user.

2. Select **Tools** > **Users' Settings**. Highlight the user that should be able to dial and click on the **Properties** button.

3. Click on the Menu tab. Under **Actions** > **Call Contact**, make sure that the **Dial Phone** options are green:
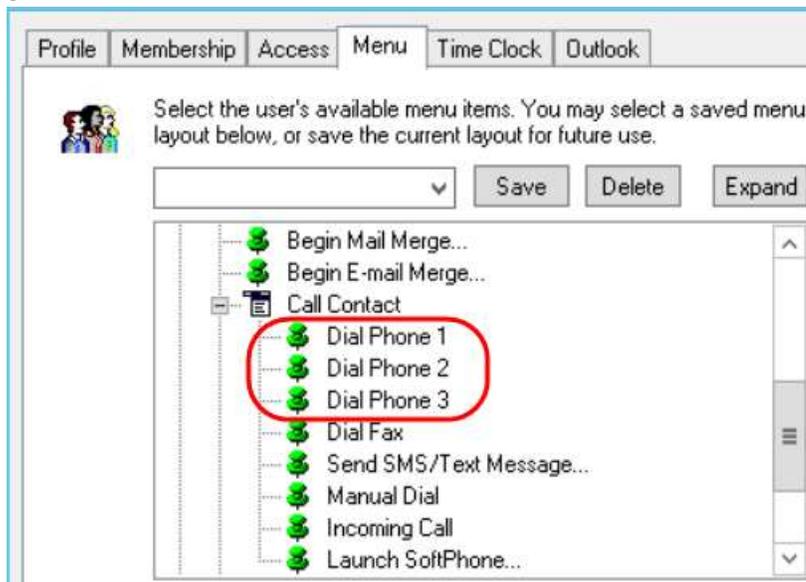


   **Note** The preferred way to set up menu access is by using saved menu layouts. This allows you to quickly apply an entire menu structure to a user. For example, you could set up a "Phone User" layout that includes all **Dial Phone** menu items. See the drop-down list and the **Save** and **Delete** buttons above.

4. Log back in as the user needing **Dial Phone** access. The user should now be able to choose **Actions** > **Call Contact** > **Dial ...** from the menu. Also, after right-clicking on a phone number, the context menu should include the **Dial Phone** command:

## The Windows Modem Dialog Opens When Dialing

You may see the Windows Location Information dialog when you first dial out:
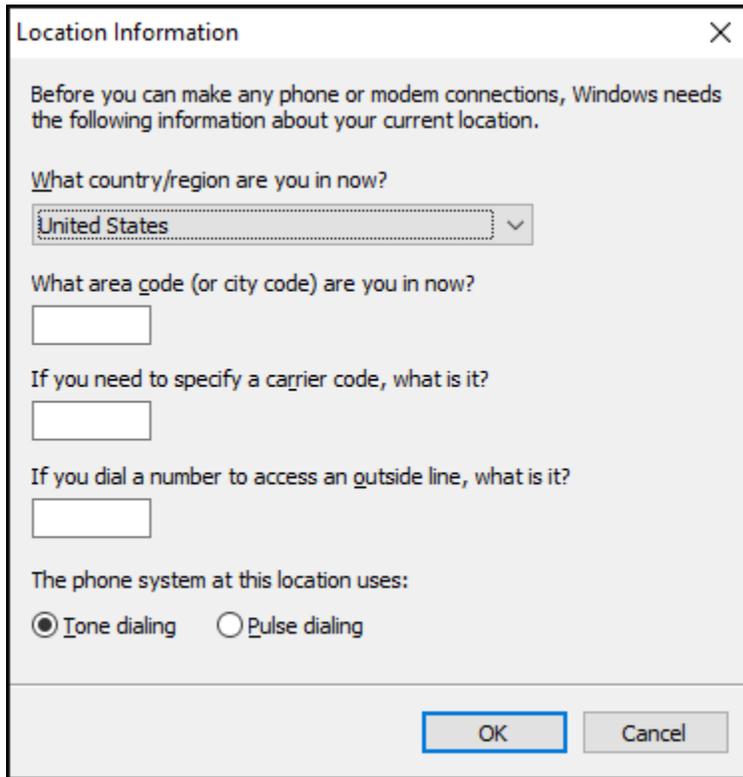


This means that Windows has detected a modem connected to your computer. It wants set up the default location for the modem. It is suggested that you set the area code to 999 (see the troubleshooting tip, "GoldMine Omits the Local Area Code When Dialing"). Leave the second and third fields blank.

**Note** A cell phone attached via USB cable to your computer may also be recognized as a modem!

If you disconnect the modem (or cell phone) and find that GoldMine keeps popping up the Telephony dialog, in the GoldMine folder, check your *user*.INI file for the [Modem] section. If you see this:

```
[Modem]
DeviceID=-1
```

Try changing it to the dummy modem setting:

```
[Modem]
DeviceID=0
```

Close and restart GoldMine, then test dialing out.

Alternatively, you can delete everything in the [Modem] section, then with GoldMine running, start GoldLink. You will be asked whether GoldLink can create a dummy modem for you.

# GoldMine Opens Telephony Options Instead of Dialing

If GoldMine opens the Telephony options dialog when you try to dial out, it may be wanting you to configure the GoldMine softphone. GoldLink to 3CX does not use GoldMine softphone, so the softphone should be disabled. From **Tools > Options**, go to the **Telephony** tab, uncheck **Start SoftPhone with GoldMine,** uncheck **Use SoftPhone by default**, then restart GoldMine to make sure the settings take effect:
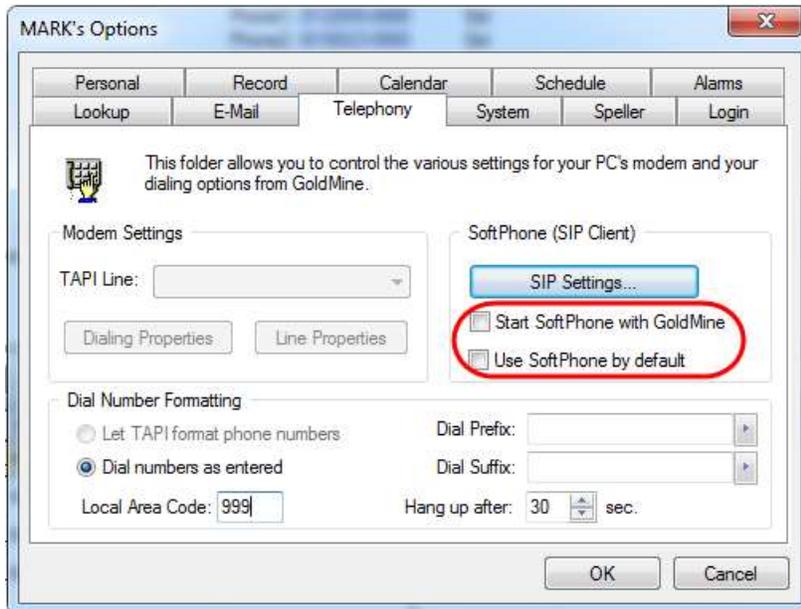


**Note** In at least one GoldMine 2019.1 installation, **Use SoftPhone by default** appears checked even if you uncheck it and restart GoldMine. However, the value stored in the user's INI file correctly shows that UseByDefault is disabled:

```
[SoftPhone]
AutoStart=0
UseByDefault=0
```

The unexpected checkmark in the Telephony tab does not seem to impact GoldLink functionality. However if you change other values in the Options dialog, you should uncheck **Use Softphone by default** again.

## GoldMine reports "You do not have Security Access to this option…"

If you try dialing out and get the GoldMine message, "You do not have Security Access to this option," the dummy modem may not be configured in your INI file.  With GoldMine running, start GoldLink manually. If you a message asking if it is okay to define a dummy modem, click Yes and restart GoldMine.

## GoldLink Could Not Find GoldMine <User>.INI File

You may see this message when 3CX tries to start GoldLink, e.g when you receive an inbound call:



If you start GoldLink manually, click on the **Params >>** button, click on the **Paths** tab, and check the **Path to GoldMine <user>.INI file**, you see that the path is valid. If you click the **Open** button, the file opens. So you know the file is there and is accessible from this PC.

This can happen if you start 3CXPhone for Windows as an administrator. 3CXPhone launches the 3CX Command Line API Plugin, which launches GoldLink. So GoldLink also runs as administrator. But the administrator context does not have a mapped drive pointing to your GoldMine installation, so when GoldLink looks for <user>.INI file, it can't find the network drive.

While it may be possible to map network drives for the administrative context, the simplest solution is to run 3CXPhone as a normal user.

## GoldLink Could Not Retrieve the GoldMine Path

GoldLink runs with non-elevated permissions by default. If GoldMine is run with eleveated permissions (as Administrator), GoldLink will not be able to retrieve GoldMine's path and may report that GoldMine is not running even though it is. As of GoldLink version 4.2.0.3, you'll see this message in this situation:



Close GoldMine and re-open without elevated permissions. (Do not run as Administrator).

## GoldLink Could Not Connect to GoldMine's User Interface

The GoldMine program (gmw.exe) must be installed on your computer's local drive, not run across the network (although the actual data is stored on a network database server). Also, GoldMine must register itself as a "COM server" to be able to respond to instructions from GoldLink.

If GoldMine is not installed locally, or if the COM registration is missing or corrupt, you'll see this message when 3CX starts:
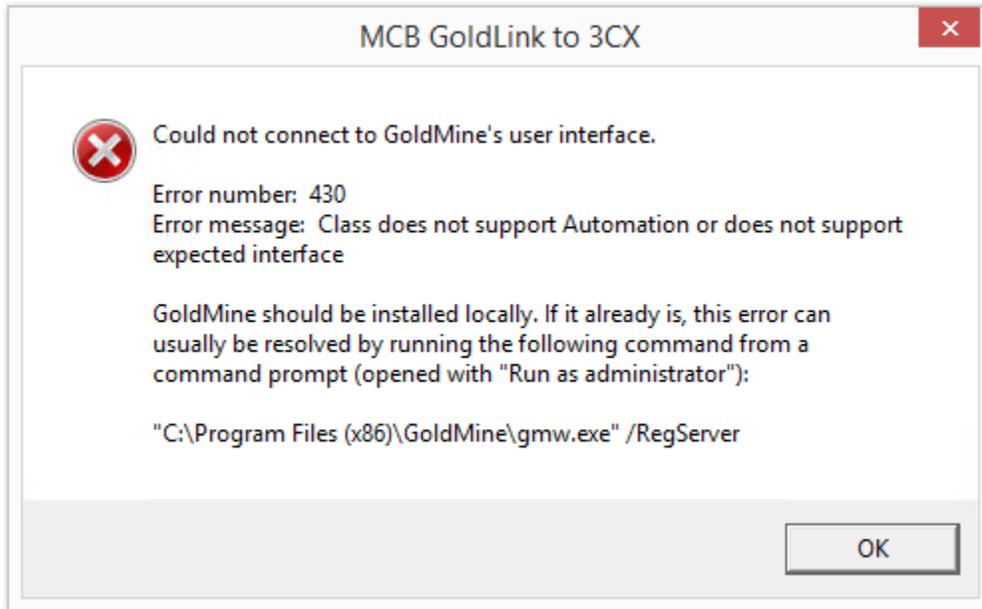


If GoldMine is already installed locally, try registering its COM server by typing the following from a command prompt (opened with "Run as sdministrator"):

```
"C:\Program Files (x86)\GoldMine\gmw.exe" /RegServer
```

## GoldLink Is Not Processing Any Calls

Check for these possible issues.

### Is the 3CX Command Line API Plugin installed?

GoldLink communicates with 3CX through the **3CX Command Line API Plugin**, which is automatically installed when you install GoldLink. You should see it near the top of your list of installed programs:
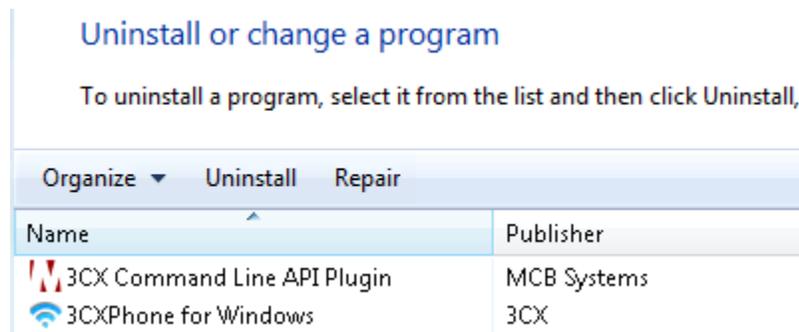


### Did the Plugin Load Successfully?

The plugin loads automatically when start 3CXPhone for Windows. Try exiting and restarting 3CXPhone. Then check the plugin's log file to make sure the plugin loaded correctly. By default, the log is in this path:

```
%AppData%\3CXCommandLineAPIPlugin\Logs\3CXCommandLineAPIPlugin.log
```

Look for these messages from the last time you started 3CXPhone for Windows:

```
ImportantEvents: C:\ProgramData\3CXPhone for
Windows\PhoneApp\CommandLineAPIPlugin.dll version x.x.x.x initialized.
ImportantEvents: GoldLinkTo3CX 4 - License validated
```

### Are You Using the Pro Edition of 3CX?

Plugins only work with the Pro edition of 3CX. The PBX and Standard editions will not work. In 3CX 14 Server Manager, go to **Settings > Activate License** to make sure you have 3CX 14 Pro Edition:
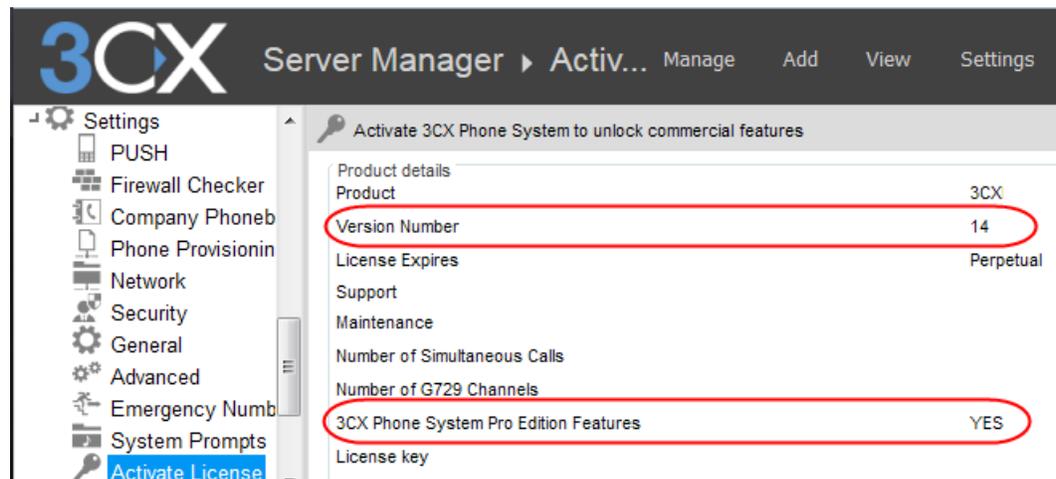
If you are running 3CX 15, from the dashboard, in the **Information** box, click on **License**. In the **License Settings** screen, confirm that you have 3CX 15 Pro edition:

License Settings    Edit    Cancel    ⊕ Help

**Product details**

| | |
|---|---|
| Product | 3CX Phone System Professional Edition |
| Version Number | 15.0.0 |
| License Expires | |
| Support | |
| Maintenance | 03/11/2018 3:41:15 AM |
| Number of Simultaneous Calls | 8 |
| Number of G729 Channels | 4 |
| Number of Simultaneous Meeting Participants | 50 |
| 3CX Phone System Pro Edition features | Yes |

## GoldMine Omits the Local Area Code When Dialing

If your 3CX setup requires that you include the area code when dialing local numbers, in the GoldMine Telephony Options dialog, tell GoldMine that your **Local Area Code** is 999:
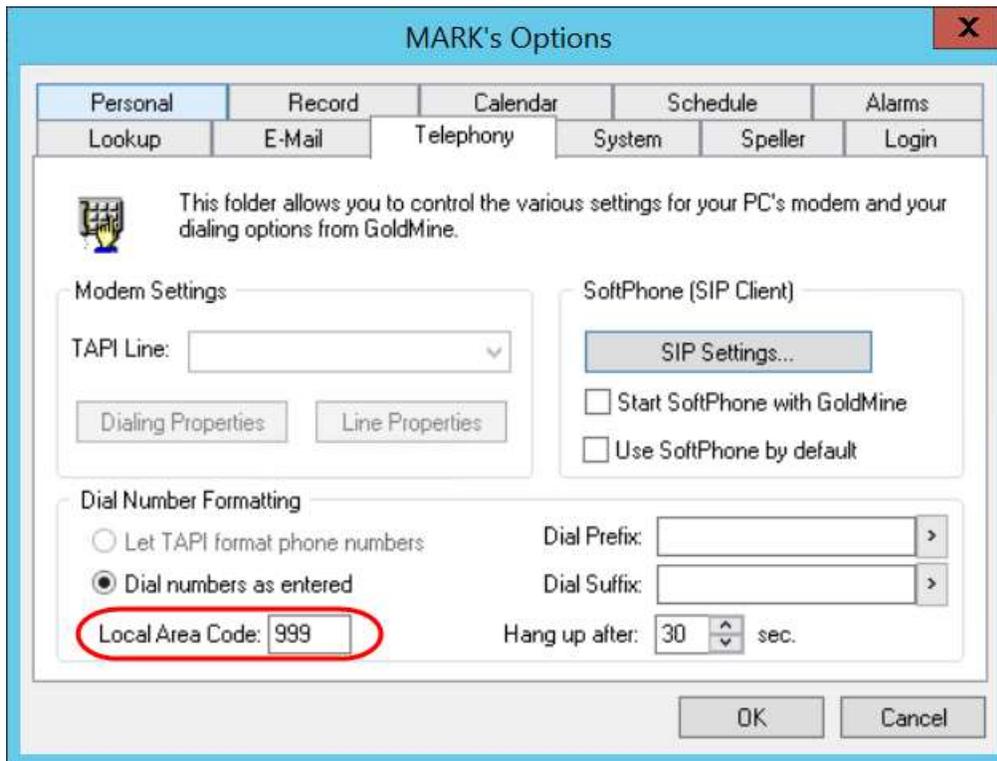


If you have a physical modem installed, you may need to make this setting in the Windows Control Panel. Under **Phone and Modem** > **Set up dialing rules**, change the area code to 999:
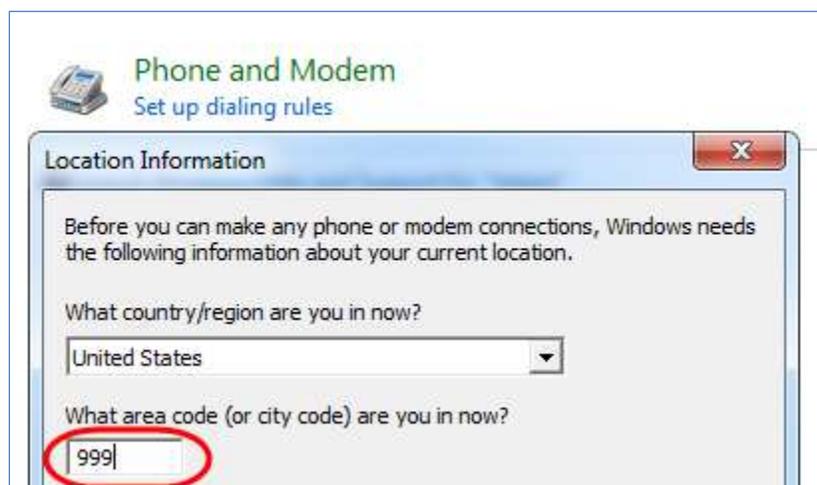
## GoldLink Is Not Processing Outbound Calls – "Call Transfer Failed"

If GoldLink is handling inbound calls but cannot dial outbound (e.g. generating "Call Transfer Failed" messages), there may be an issue with the format of the number received from GoldMine or passed to 3CX. In GoldLink, check **Always show form**, click **Save Settings**, then review the messages in the **Status** box when dialing.

- If GoldMine is passing too many digits to GoldLink, you can trim leading digits by using the GoldLink option **Trim all but the last x digits before dialing outbound number**. In North America, assuming your 3CX installation handles 10-digit dialing to any number (local or long distance), you would normally set this to trim all but the last 10 digits.
- If the parameter passed from GoldMine begins with `&Dial,,C:\GoldLinkTo`, you are probably trying to dial a USA Format number with fewer than 7 digits. Change the GoldMine contact record to Non-USA Format, or enter a phone number of at least 7 digits (GoldMine will add your local area code to make it 10 digits).

When GoldLink is working as expected, uncheck **Always show form** and click **Save Settings**.

# GoldLink Is Not Processing Outbound Calls – Just Goes Off Hook and Stalls

## Symptoms

- You try to dial out from GoldMine but the call is not dialed—the desk phone never rings to start the Make Call.
- If you receive an incoming call, or if you manually dial a call from the desk phone, GoldLink opens the history dialog as expected, so GoldLink is working.
- 3CX Phone shows that it is off hook (red bar) but does not show the number. You can end the call in 3CX Phone but it doesn't fix the problem.
- The GoldLinkTo3CX.log file shows "Dialed nnnnnnnnnn using 3CX."
- Even when set to log AllEvents, the 3CXCommandLineAPIPlugin.log file does not show the call being dialed.
- Re-starting 3CX Phone did not help. Logging off and on did not help.

## Cause

Log on to the 3CX 14 dashboard. Under **Troubleshooting > Activity Log**, check whether 3CX shows that a call is active although none is. Under **System Status > Extensions View**, look for the connected call, for example to the voicemail extension 99:

| Status | Extension | User Status | DND | Queues | Name | IN/OUT | Caller ID | Destination |
|---|---|---|---|---|---|---|---|---|
| Connected | | Available | OFF | OUT | Mark Berry | OUT | | 99 |

In this case, perhaps half an hour earlier, the Internet went offline briefly while the user was listening to a voicemail on the desk phone, and the call dropped. However, obviously it wasn't a clean drop—the phone wasn't able to send the SIP "BYE" messages ending the call—so 3CX thought the call was still in progress. In this state, the desk phone (with only one line dedicated to 3CX) was not able to receive the Make Call connection for outbound dialing.

## Solution

In the dashboard under **System Status > Extensions View**, highlight the Connected call and click **Disconnect Call**. After that, dialing out should work again.

**Note** In 3CX 15:

- **Activity Log** is a large blue button on the dashboard
- To see active calls, on the dashboard, in the **PBX Status** box, click on **Number of calls in use**.

## Can't Open Link to File

**Note** In testing, GoldMine version 8.5 was unable to open links to .wav files found in the Notes field of GoldMine history records. GoldMine 6.5 and 9.0 can open the links.

**Note** File links from GoldMine work in Internet Explorer. Other browsers may have issues.

Opening a link to a file from a GoldMine history record is similar to opening a link on a web page. Your computer must be configured to handle the file type (in the case of 3CX recordings, these are **.wav** files). Also, your computer must trust that the file is coming from a safe source. While several factors can affect this, by default, Internet Explorer is configured as shown below to allow access to files on the local network ("intranet"):
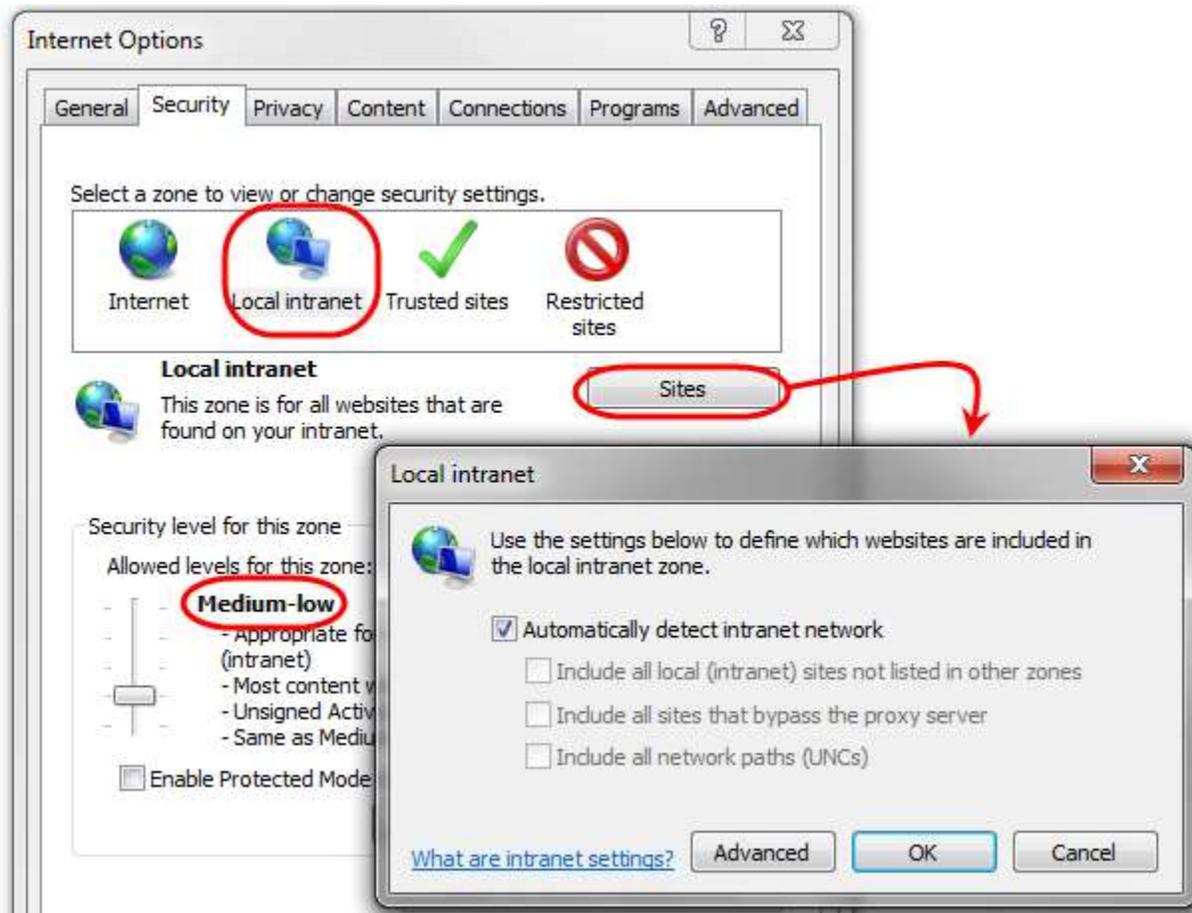
## GoldLink is Not Inserting Link to Recording in GoldMine History Notes

Double-check the settings described under "In history item's Notes, add link to most recent file in this folder" on page 15.

If all other features are working but the link is not getting inserted (even if it used to work), the time on your workstation may be different from the time on the 3CX server, which can cause the rule "Only add link if the file was created in the last x seconds" to fail. This is because file time stamps are created by the server but the age of the file is checked by the local PC. It is suggested that all computers in the environment be synchronized to a good time source using the Network Time Protocol (NTP).

## GoldLink Is Not Positioning to a GoldMine Record on an Inbound Call

This will happen in the following scenario:

- You check **Search for CallerID in Additional Contacts** and **Show GoldMine contact in a new window**.
- The CallerID is found in an Additional Contact
- The corresponding primary contact does not have a main Phone number (Phone1).

### Cause

The only practical way to open and position in a *new* GoldMine window is to use the GoldMine API's [CallerID(Phone1)] function, so the main phone number must be filled in. Positioning in the *current* window does not have this limitation.

### Workaround

Either fill in the primary contact's main phone number, or configure GoldLink to **Show GoldMine contact in the current window**.

## GoldLink Is Positioning to the Wrong GoldMine Record on an Inbound Call

### Cause

GoldLink always positions to the first record that matches the CallerID. If multiple primary records have the same phone number, GoldLink will position to one of those records.

### Workaround

Assign unique phone numbers to contacts, or manually move to the correct record after GoldLink positions to a different record than expected.

# 9. Technical Reference

Several technologies must work together for GoldMine to communicate with GoldLink and GoldLink with 3CX.

For communication with GoldMine, GoldLink uses both Dynamic Data Exchange (DDE) and the Component Object Model (COM) API. These technologies are documented in *Integrating with GoldMine: API Specifications and Examples*, available to GoldMine customers and integrators.

For communication with 3CX, GoldLink was programmed based on the **3CX CRM Command Line API** as defined here:

https://web.archive.org/web/20140715160436/http://www.3cx.com/blog/docs/command-line-api/

That API was removed after 3CX 11, so starting with 3CX 14, MCB Systems wrote an API "bridge" called the **3CX Command Line API Plugin** that takes events from 3CXPhone for Windows and converts them back to the Command Line API format. This allows GoldLink to continue to work with the new 3CX plugin-based architecture.

The following sections identify several log files and registry entries that are required for GoldLink to communicate with 3CX. Some of these settings are visible in the GoldLink interface when you click on the **Params >>** button, then the **Paths** or **Registry** tabs.

## Log Files

These are the default log file locations.

### MCB GoldLink to 3CX

```
C:\ProgramData\MCB Systems\GoldLinkTo3CX\GoldLinkTo3CX.log
```

### 3CX Command Line API Plugin

```
%AppData%\3CXCommandLineAPIPlugin\Logs\3CXCommandLineAPIPlugin.log
```

### Install and Uninstall Logs

```
%temp%\Setup Log yyyy-mm-dd #nnn.txt
%temp%\Uninstall Log yyyy-mm-dd #nnn.txt
```

## Registry Settings for GoldLink to 3CX

On 64-bit versions of Windows, registry settings are under `Wow6432Node`.

|  |  |
|---|---|
| Key: | `HKLM\Software\[Wow6432Node\]3CX\CRM\CallNotifierPath` |
| Default value: | `C:\GoldLinkTo3CX\GoldLinkTo3CX.exe` |
| Purpose: | Identifies the program that the 3CX Command Line API Plugin runs to notify of inbound and outbound call events. (The plugin receives notifications from 3CXPhone for Windows and "translates" them to the Command Line API format.) |

|  |  |
|---|---|
| Key: | `HKLM\Software\[Wow6432Node\]3CX\3CXPhone for Windows\Path` |
| Default value: | `C:\ProgramData\3CXPhone for Windows\PhoneApp\` |
| Purpose: | Path to the local installation of 3CXPhone for Windows. The following files must be in this path:<br>`CallTriggerCmd.exe`: The program that GoldLink runs to dial out via 3CX. This program is included with 3CXPhone for Windows.<br>`CommandLineAPIPlugin.dll`: The 3CX Command Line API Plugin.<br>`3CXWin8Phone.user.config`: The config file that lists CRM plugins to load. |

## Registry Settings for the 3CX Command Line API Plugin

These settings are *optional*. Default value will be used if they are not defined. Note that they are defined per user, in the `HKEY_CURRENT_USER` (`HKCU`) hive. The `HKCU` hive does not use the `Wow6432Node`.

|  |  |
|---|---|
| Key: | `HKCU\Software\3CX\CRM CommandLineAPILogPath` |
| Default value: | `%AppData%\3CXCommandLineAPIPlugin\Logs` |
| Purpose: | Folder where the plugin will store its log file. Do not include the file name. If this key is blank or not defined, the default path is determined dynamically when the plugin loads. Because `%AppData%` is user-specific, each user will have their own log. |

|  |  |
|---|---|
| Key: | `HKCU\Software\3CX\CRM CommandLineAPILogLevel` |
| Value options: | `ImportantEvents`<br>`AllEvents` |
| Default value: | `ImportantEvents` |
| Purpose: | Whether to log important events (version and license information when the program starts) or all events (every time the plugin runs GoldLink). If this key is blank or undefined, only important event are logged. You can temporarily set this to `AllEvents` for debugging purposes, but this will cause the log file to grow quickly, so it should be set back to `ImportantEvents` for routine call handling. |