

# Calabrio ONE

## Recording Export Utility Reference Guide

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# Recording Export Utility

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Calabrio ONE® Recording Export (CRX) version 11.0(15) supports Recording and Quality Management versions 2.7(1) and newer. It is used for the bulk export of the audio portion of contact recordings and their associated metadata for further processing (such as Phonetics Analytics) or storage.

CRX can export contact recordings manually or automatically.

- In Manual mode, you define an export task (or use an existing one), run the task to obtain a list of contact recordings to export, and then export them.
- In Automated mode, export tasks are configured to run on a recurring schedule. CRX runs the tasks at the scheduled times and automatically exports the contact recordings.

The main purpose of CRX is to export contact recordings in formats compatible with most Phonetics Analytics software. Optionally, it can also create phonetic index files compatible with the Aurix gopher-it® tool.

For additional information, see "Logs and Debugging" in the *Troubleshooting Guide*.

## Platform and Utility Requirements

CRX can be run on either a desktop or a server. Operating system and software requirements are listed below.

Supported operating systems:

- Desktop operating systems
  - Windows 8.1 (32/64-bit)—Professional, Ultimate
  - Windows 7 (32/64-bit)—Professional, Ultimate
- Server operating systems
  - 64-bit Windows Server 2012 or later
  - 64-bit Windows Server 2012
  - 64-bit Windows Server 2008, R2 or later

Required applications:

- Recording and Quality Management must be installed and running. Recording and Quality Management can be installed on any server as long as CRX can access the database and recording storage locations over the network.
- CRX

- Windows Media Player is required if recordings are to be exported in WAV or WMA format. On a server you must enable Desktop Experience in order to run Media Player.

CRX requires a drive mapped to the contact recording storage location. This location is configured when Recording and Quality Management is installed. For example, the storage location could be on the Recording and Quality Management server or a NAS drive.

## Hardware Requirements

Hardware requirements depend on how you will be using CRX—how many contact recordings are exported and whether you use Phonetics Analytics.

### Hardware Requirements for the CRX Server

The minimum hardware requirements for the CRX server are as follows:

- 2x Intel 5140 Xeon 2.33GHz
- 4 GB RAM
- 40 GB hard disk space

**Note:** Recording storage varies by use.

You can substitute servers with additional CPU cores and memory to reduce recording export processing time.

### Recording Export Performance

The recording export process is primarily CPU dependent. You can improve the speed of exporting recordings by adding CPU cores and 2 GB RAM per core to the CRX server. Performance testing shows the ratio of processing time over recorded audio time per core to be approximately 0.0564. For example, a single core can export 100 hours of recording in 5.64 hours ( $100 \times 0.0564$ ).

### Hardware Requirements for the CRX Desktop

The minimum hardware requirements for the CRX desktop are as follows:

- 2 GB RAM
- 100 Mbit NIC
- For additional hardware requirements, go to the following websites:
  - Windows 8.1 (32/64-bit): <http://windows.microsoft.com/en-us/windows-8/system-requirements>
  - Windows 7 (32/64-bit): <http://windows.microsoft.com/en->

[US/windows7/products/system-requirements](https://www.microsoft.com/en-us/windows7/products/system-requirements)

- Windows XP (32/64-bit): <http://support.microsoft.com/kb/314865>

## Licensing Requirements

Licensing is not required for basic export.

To use CRX to export recordings from Recording and Quality Management to your desktop, using multi-thread exporting to process a large number of recordings, and create the audio index files, you need the Export Advanced license.

When you request an Export Advanced license from Calabrio, you must provide the following information about the computer where CRX will be installed:

- MAC address
- IP address

Calabrio will email the Export Advanced license to you after receiving the information.

## File Encryption Requirements

Audio files for Recording and Quality Management 8.0 and later are encrypted for security purposes. CRX requires the filecryptokeystore file to decrypt the contact recordings from Recording and Quality Management.

After you install CRX, copy the filecryptokeystore file from its to the computer where CRX is installed. If this is not done, you will not be able to use CRX to export contact recordings. See [Installing CRX](#) for instructions.

The filecryptokeystore file contains the encryption keys used to secure Recording and Quality Management recordings.

**Note:** The filecryptokeystore file can decrypt any Recording and Quality Management recording. You must follow proper security procedures when copying the file to ensure it is not misused.

To prevent unauthorized access to recordings, the computer running CRX should be located in a secure location so only authorized personnel have access to the key. After exporting the audio files, you can move the audio files to a less secure location to allow the appropriate users to access them.

## Sizing

A one minute audio file will be 1.92 MB after it is exported.

## Installing CRX

### To install CRX:

1. From a web browser, enter the following URL:

`http://<Web Base server>/TUP/QM/Administrator.htm`

where <Web Base server> is the IP address or hostname of the Recording and Quality Management Web Base server.

2. Download and install Calabrio Recording Export (CRX).
3. Share the recordings folder on the recording server (see [Sharing the Recordings Folder](#)).
4. Map a drive to the audio file storage location on the desktop (see [Map a Drive to the Recordings Storage Location](#)). The mapped drive should contain the path to the audio folder.
5. Export Advanced license only. On the machine where CRX is installed, copy the Export Advanced license to the following location:

`C:\Program Files\Calabrio\Calabrio Recording Export\License`

**Note:** The paths in these steps are default paths. Your installation location might be different.

6. On the Site Upload server where the Media webapp resides, copy the filecryptokeystore file from the following location:

`C:\Program Files\Common Files\QM\config folder`

**Note:** You can use a memory stick to transfer files between machines.

7. On the machine where CRX is installed, copy the filecryptokeystore file to the following location:

`C:\Program Files\Calabrio\Calabrio Recording Export\License`

8. Start CRX (see [Start CRX](#)).

These tasks must be repeated for each additional recordings storage location.



**Note:** A single installation of CRX exports recordings from only one location. You must install an instance of CRX for each storage location from which you want to export recordings.

## Sharing the Recordings Folder

CRX requires access to the recordings on the recording server. You need to share the folder that contains the recordings on the recording server. For example, you can share the recordings folder on the Recording and Quality Management Web Base server. To share the recordings folder, complete the following steps:

1. Locate the recordings folder on the recording server. The recordings folder is in the following location:

```
C:\Program Files\Common Files\QM\
```

2. Right-click the recordings folder, and choose Properties. The Recordings Properties dialog box appears.
3. Click the Sharing tab, and then click Advanced Sharing.
4. Select the Share this Folder check box, and then click OK.

The Recordings Properties dialog box indicates the recordings folder is shared.

## Map a Drive to the Recordings Storage Location

To map a drive to the recordings storage location, complete the following steps on the machine where CRX is installed:

1. In Windows Explorer, choose Tools > Map Network Drive.
2. Choose a drive and map it to the audio file folder as follows:

```
\\<hostname or IP address>\<recordings folder>
```

where <hostname or IP address> is the hostname or IP address of the recording storage location where the audio files are stored, and <recordings folder> is the full path to the recordings folder.

By default, this folder is located at C:\Program Files\Common Files\QM\recordings. It might be different in your system. Be sure that the path goes no deeper than the audio folder; this folder contains subfolders that store the actual recordings.

3. Click Finish.
4. Enter the user name and password required to connect to the mapped drive, select Remember My Password, and then click OK.

When you enter the user name, use the following format:

```
<hostname>\<username>
```

where <hostname> is the hostname associated with the mapped drive, if applicable, and <username> is the login name for the mapped drive.

## Start CRX

To start CRX, do one of the following:

- Choose Start > All Programs > Recording and Quality Management > QMExport.exe.
- Navigate to the following location `C:\Program Files\Calabrio\Calabrio Recording Export` and double-click `QMExport.exe`.

If the CRX License Error message appears, click OK. Locate the license from the Open window, and then click Open.

- From the command line (`cmd.exe`), navigate to `C:\Program Files\Calabrio\Calabrio Recording Export`, and enter the following command:

```
QMExport.exe <option>
```

where <option> defines how CRX behaves when started. See [QMExport.exe Command Options](#) for more information.

## QMExport.exe Command Options

You can start CRX from the command line. The syntax for the `QMExport.exe` command is as follows:

```
QMExport.exe <option>
```

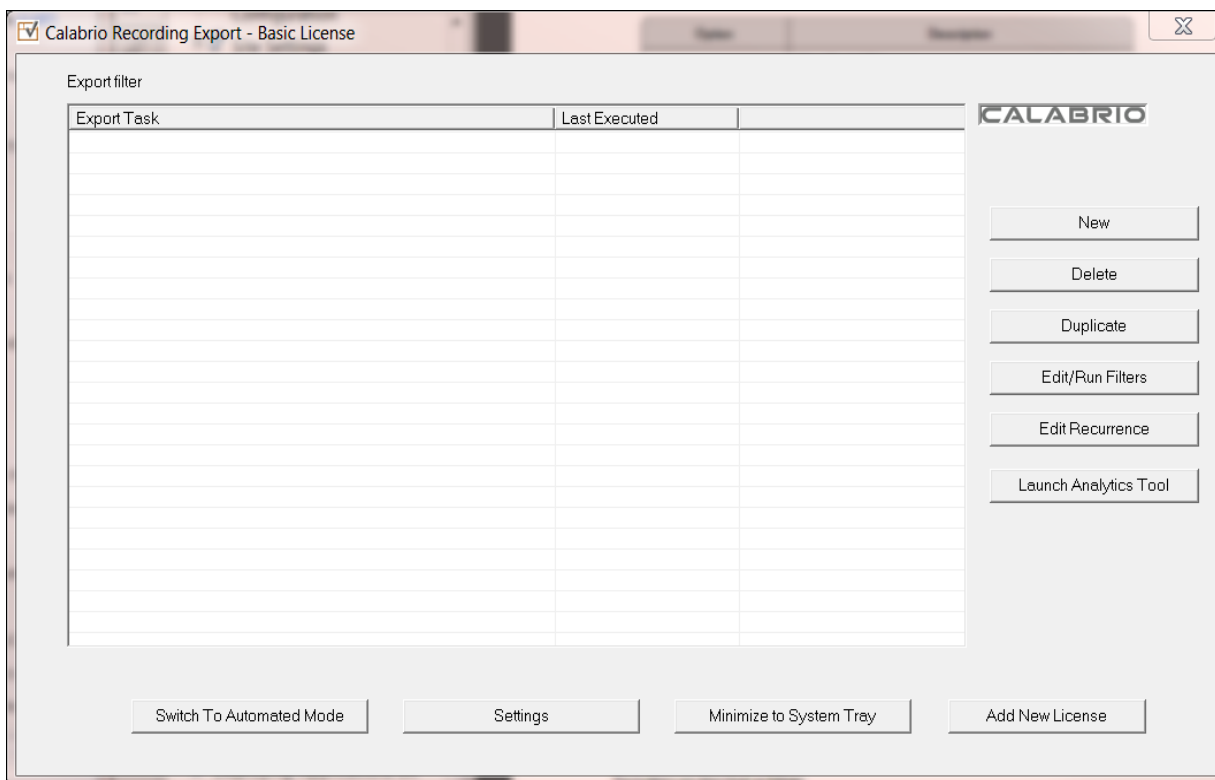
where <option> defines how CRX behaves when started. The options are as follows:

Option	Description
-a	(Automated) Starts CRX in Automated mode. The default startup mode is Manual.
-m	(Minimize) On startup, CRX is minimized to the task bar. The CRX icon is also present in the System Tray.
-h	(Hidden) On startup, CRX runs hidden in the main window with the CRX icon in the System Tray.

Option	Description
-o	(One Shot) CRX starts, executes any export tasks whose recurrence times have been hit, and then exits. This option is useful for users who want to kick off CRX with the Windows Scheduler rather than leaving CRX running in Automated mode.

## CRX Interface

The Calabrio Recording Export window displays the list of export tasks you have created and the buttons for managing export activities.



The Export Task list displays all the export filters you have defined. An export filter is a set of criteria that define a particular set of audio recordings to be exported. The name of each filter must be unique. If the filter is set to run automatically, the date and time when it was last run is displayed in the Last Executed column. Date and time are not displayed for filters that are run manually.

**Note:** You must configure CRX before you can define an export filter. See [Configuring CRX](#) for more information.

The buttons are described as follows:

- New—define a new export task
- Delete—remove one or more export tasks.

**Note:** You cannot restore a deleted task.

- Duplicate—make a copy of a selected export task.
- Edit/Run Filters—edit, rename, or manually execute an existing export task.
- Edit Recurrence—set or change the recurrence schedule for the selected task.
- Launch Analytics Tool—launches the analytics tool (if installed on your desktop). See the analytics documentation for more information on this tool.
- Switch To Automated Mode/Switch To Manual Mode—toggle between manual and automated mode.
  - Switch To Automated Mode—when switched to automated mode, CRX automatically evaluates the tasks schedule and processes each task at the scheduled time. By default, all export tasks are scheduled to run once a day.
  - Switch to Manual Mode—when switched to manual mode, you can run an existing task manually or export records as a one-time event.
- Settings—enter the information that enables CRX to communicate with Recording and Quality Management.
- Minimize to System Tray—minimizes CRX to an icon in the System Tray.
- Add New License—this button allows you to select a new license. After you have selected a new license, you must delete the old license from the License folder in order to use the new license.

**Note:** The license upgrade does not take effect immediately. You must close and then restart CRX to use the new license.

**Note:** If you use 125% scaling on your monitor it is possible that buttons in the CRX interface might appear shifted from their normal locations. To prevent this from happening, use a larger or smaller display scaling, or use the Microsoft magnifier tool.

## Configuring CRX

To configure CRX, you must complete the following tasks:

1. Connect to the Recording and Quality Management database.
2. Create an export filter.
3. Export contacts manually on a one-time basis or automatically on a recurring basis.

### Connect to the Recording and Quality Management Database

To connect to the Recording and Quality Management database, enter the authentication information that you obtained from your database administrator in the Settings window.

The screenshot shows a Windows-style dialog box titled "Settings". It has a blue title bar with a close button. The main area is light gray. At the top, there's a section labeled "QM Database". Below it, there are two radio buttons: "Host Name" (unselected) and "IP Address" (selected). Underneath, there are four text input fields: "IP Address" containing "10.10.51.122", "SQL Instance Name" (empty), "Username" containing "sa", and "Password" containing "\*\*\*\*\*". A "Test" button is centered below the password field. At the bottom of the dialog, there is an "Audio Directory" text box containing "Z:\audio" and a folder icon. Below that are "OK" and "Cancel" buttons.

The following task is required the first time you use the utility or if the information changes. When these settings are complete, you can use CRX to export Recording and Quality Management recordings.

1. To start CRX, choose Start > Programs > Calabrio > QMExport.exe.
2. On the Calabrio Recording Export window, click Settings.
3. Select Host Name or IP Address and then enter the host name or IP address of the server

that hosts the QM database in the IP Address field.

If your database uses a different port than the default, you can add the port after the IP address, separated with a comma.

**Example:** 10.10.10.10,1433

4. Enter the SQL instance name. If you are using the default SQL instance, leave this field blank.
5. Enter the username and password for the Recording and Quality Management database.
6. Click the Test button to test the connection. A successful test returns the following message:

Attempt to read users SUCCESS

If the test fails, verify that the QM database information is correct and try again.

7. To specify the location of the directory that contains the stored recordings files, click the Browse button, select the ...\audio folder on the drive you mapped in [Map a Drive to the Recordings Storage Location](#).
8. Click OK to save your changes.

These settings are stored in the QMExport.xml file, located at:

C:\Program Files\Calabrio\Calabrio Recording Export

You can use this file in other CRX installations where the connection information is the same. This file can also be reused if CRX is upgraded to a newer version so you do not need to reenter the information.

### Define an Export Filter

Use the export filter to select the contact recordings and database records that you want to export.

You can search for multiple records using wildcards or a complex search.

- Use an asterisk wildcard ( \* ) to represent a string of characters or a question mark ( ? ) to represent a single character.
- Use a complex search to search on multiple metadata fields or on ranges within a single metadata field.

To define an export filter, complete the following steps:

1. On the Calabrio Recording Export window, click New. The Export Filter window appears.

The screenshot shows the 'Export Filter' window with the following components:

- Export Task:** A text field containing 'New Task 5'.
- Filters:** Includes input fields for 'First Name:', 'Last Name:', 'Group Name:' (dropdown set to 'Any'), and 'Team Name:' (dropdown set to 'Any'). Below these are buttons for 'Metadata Filtering' and 'Phone# Filtering', and a 'Contact ID:' field.
- Time Filters:** Includes 'Start Date:' and 'End Date:' dropdowns (both set to 12/9/2015), 'None' checkboxes, radio buttons for 'Static Time' (selected) and 'Relative Time', and 'Start' and 'End' time relative fields (both set to 1 day(s) before filter is run).
- Export Options:** Includes an 'Export to:' field (C:\Program Files (x86)\Calabrio\CRX\CRExport\), an 'Export Data Only' checkbox (unchecked), 'Export format:' radio buttons (WAV selected, WMA unselected), 'Enable Speech Analytics' checkbox (unchecked), and 'Organize exports by:' checkboxes (Task checked, Filter Run Time checked, Group unselected, Team unselected).
- Buttons:** A 'Find Contacts' button is located below the Time Filters section.
- Table:** A table with the following columns: Path, Contact ID, First Name, Last Name, Group Name, Team Name, Calling Number, Called Number, Date, Time, Zone, Call ID.
- Footer:** 'Save Filter' and 'Export Now' buttons.

2. Type an export task name in the Export Task field. The name must be unique. It can contain letters, numbers, and special characters, including spaces. This field is not case sensitive.
3. Create the filter using any combination of the two filter sections.

Section	Description
Filters	<p>Enter or select information about the call or recording in this section. The entry fields support standard Windows wildcard characters (* and ?). Any field left empty is the equivalent of saying, “any value matches”.</p> <p>Use the Metadata Filtering button to search with multiple metadata fields. In the Metadata Filters dialog box, select a metadata field, enter a filter value, and click Add.</p> <p>Use the Phone # Filtering button to search for a range of phone numbers. Enter the start and end value of a phone number range and click Add.</p> <p>Once you are done selecting the metadata fields or phone number ranges, choose the option Any Condition or All Conditions to denote that the filter must match all conditions you entered or any one of the conditions you entered.</p>
Time Filter	<p>Use this section to search for calls or recordings based on date and time.</p> <p>If you intend to run an export task in Manual mode, a static date range (Static Time option) is recommended. However, you can also choose to set a relative data range (Relative Time option).</p> <p>If you intend to run an export task in Automated mode, a relative date range is recommended. The query date range is independent of the recurrence date range. In order to select new contact recordings to export every time the task runs, you must use a relative date range.</p>

4. Set the export destination in the Export to field. By default, CRX exports files to a folder under C:\Program Files\Calabrio\Calabrio Recording Export\CRExport on the local machine.
5. Select Export Data Only if you want to export the data related to the recordings but not the recordings themselves. The data is written to a single output file per export with the name exportfile\_log\_<date>\_<time>.txt, where <date> is the date of export in M\_D\_YYYY format and <time> is the export time in H\_M\_S format. The file is written to the folder named in the Export to field.
6. Select WAV or WMA option to specify the export recording format.



7. Select the Enable Speech Analytics check box to create speech index files. This check box adds another step to the export process. The exported files will be processed and a phonetic index file for each audio file will be created that can be used to search for words in the audio. This step is not required, but it will help speed up the process since Aurix gopher-it will not need to perform this step again before it can search through the audio.
8. Organize the subfolders for the exported recordings. These subfolders are created under the folder specified in the Export to field.

Option Selected	Description
Task	Creates a subfolder with the same name as the export filter.
Filter Run Time	Creates a subfolder using the date and time of the export, in the format <runtype>_YYYY_M_D_H_M_S, where runtype is AUTOMATIC or MANUAL and YYYY_M_D_H_M_S is the date and time of export.
Group	Creates a subfolder with the same name as the group. If the export contains contacts found in multiple groups, there will be multiple group subfolders.
Team	Creates a subfolder with the same name as the team. If the export contains contacts found in multiple teams, there will be multiple team subfolders.  If you also selected the Group option, the team subfolders are created under the appropriate group subfolder.
None	No subfolders are created; all files are exported to the location specified in the Export to field.

9. Click Find Contacts to run the filter and see information about the calls that meet the filter criteria.
10. Choose one of the following options:
  - Export Now: exports the recordings without saving the export task.
  - Save Filter: saves the new or edited export task to the C:\Program Files\Calabrio\Calabrio Recording Export\ExportTasks folder. The export task file name is <date and time stamp>.clb (for example, 20113910564557.clb).

When you save the export task, the Export Filter window is closed. You must open the Export Filter window again to run the export task manually.

### Exporting Contacts Manually or Automatically

You can choose to export recordings manually or automatically.

Exporting recordings manually is a one-time event. You manually select the filter and export options and export the recordings.

Exporting recordings automatically is a recurring event. You define how frequently recordings are exported and what the recurrence pattern is.

When CRX is running in automated mode, all recurrence settings are evaluated against the current date and time. When the configured date and time is matched, the export filter is run. When CRX is running in manual mode, recurrence filters are not evaluated.

**Note:** CRX always starts in manual mode. If you switch to automated mode, any recurring filters that are scheduled for the current date but for an earlier time will run immediately.

**Note:** CRX runs only one export task at a time.

### Manual Export

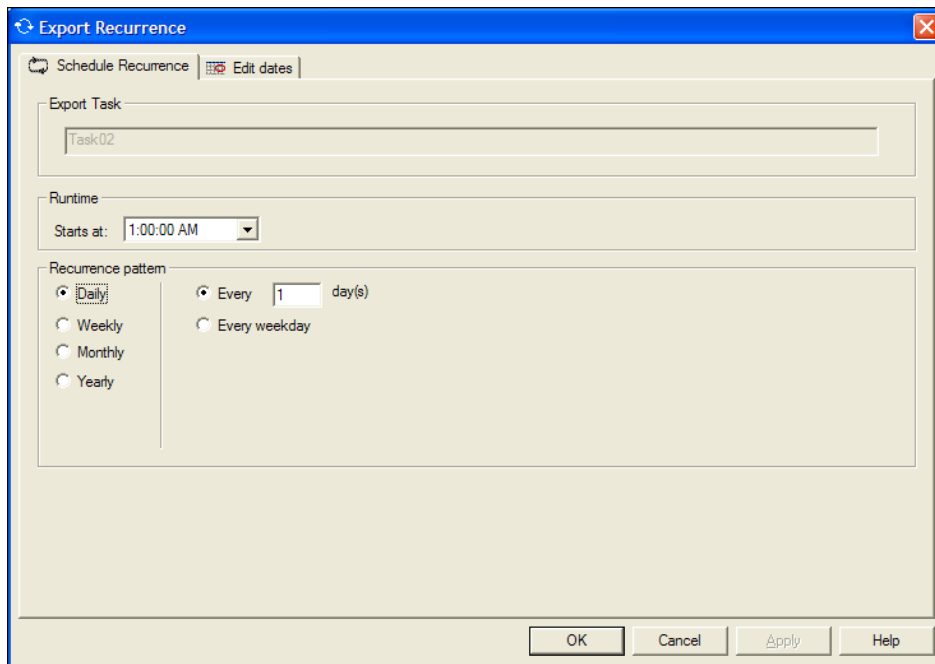
To export recordings manually, follow these steps:

1. In the Calabrio Recording Export window, select an export task and click Edit/Run Filters. The Export filter window appears.
2. Make any desired changes to the export task.
3. Click Find Contacts.
4. Choose one of the following options:
  - To export one or more contact recordings, select the contacts from the list and click Export Now. Use Shift + Click to select contiguous contacts and Ctrl + Click to select non-contiguous contacts.
  - To export all contact recordings, click Export Now without selecting any specific contacts.
  - To save the export task, click Save Filter.
5. When the export is complete, the exported contacts are available in the location specified in the Export to field.

### Automatic Export

To configure a recurring export event, follow these steps:

1. In the Calabrio Recording Export window, select an export task and click the Edit Recurrence button. The Export Recurrence window appears.



2. On the Schedule Recurrence tab, enter or select the time when the export task should begin.
3. Configure a repetition pattern in the Recurrence Pattern section.
4. To add or black out dates, select the Edit Dates tab.
5. On the calendar, select or deselect specific dates to include in or exclude from the recurring pattern and click Apply or OK.
6. From the Calabrio Recording Export window, click Switch to Automated Mode.

**Note:** CRX must run in automated mode to run recurring export tasks. If the system performs an automated action that logs you out or pauses CRX, the export tasks will not be able to run at the correct time.

7. When you are finished using CRX, click Minimize to System Tray. CRX then runs in the background and QMExport appears in the system tray. This allows CRX to run scheduled export tasks when you are not actively using CRX.

## Removing CRX

### *To remove CRX:*

1. Back up files. See [Back Up Files](#) for specific instructions.
2. Remove CRX. See [Removing the CRX Application](#) for specific instructions.

## Back Up Files

If you intend to restore CRX at a later time, back up the following items from the ...\\Calabrio\\Recording Export folder:

- QMExport.xml—this file contains your connection information to the Recording and Quality Management database and the mapped drive to the recordings folder.
- License—this folder contains your license files for CRX.
- ExportTasks—this folder contains the default settings for your export tasks.

## Removing the CRX Application

To remove CRX, complete the following steps:

1. Open the Windows Control Panel.
2. Double-click Add or Remove Programs.
3. From the list, select Calabrio Recording Export and click Remove.

Windows removes the CRX application.

## Exported Recordings

When you export recordings, they are saved to a folder path specified in the Export Records Event window. The default path is ...\\Calabrio Recording Export\\CRExport.

The subfolders in this path are named according to the option you choose on the Export Filter window. You can organize exports by task, filter run time, group, or team. For example, if you opt to organize exports by task, the task named Task01 is also the name of the folder. Each time you export recordings using Task01, CRX creates a subfolder under the Task01 folder named according to the type of export and the date/time, as follows:

- `AUTO_<YYYY_M_D_H_M_S>`—this folder contains recurring exported files.

**Example:** `AUTO_2012_3_9_15_9_34`

- `MANUAL_<YYYY_M_D_H_M_S>`—this folder contains manually exported files.

**Example:** `MANUAL_2012_12_13_9_30_2`

These subfolders contain exported contact recordings, a log file, and (if the Phonetics Analytics check box is selected) the phonetic index files. The export log file uses the following naming convention:

`export_log_<YYYY_M_D_H_M_S>`