

**QuoteAdvantage  
for Microsoft CRM  
Software Installation Guide**

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## CHAPTER 1

# Introduction

Welcome to the Installation Guide for QuoteAdvantage for Microsoft CRM. This document is designed to walk a system administrator through the steps for installing QuoteAdvantage into a Microsoft CRM environment.

For detailed information about how to customize QuoteAdvantage to match your company's business needs, please refer to the User's Guide.

This guide is divided into a series of chapters that cover the sequential steps that should be followed for deploying QuoteAdvantage onto your Microsoft CRM Server. We recommend reading through all of the steps before beginning your deployment process. Each step builds upon the previous step. It is extremely important to complete each step successfully before proceeding to the next step.

QuoteAdvantage is an add-on for Microsoft CRM. The product is only useable if you have a properly initialized Microsoft CRM Server. Before beginning, make sure your Microsoft CRM Server has been deployed correctly and appears to be in good working order.

In order to deploy QuoteAdvantage, you will need administrative access to Microsoft CRM. If you do not have the necessary security permissions to administrate your Microsoft CRM Server, then you should contact your system administrator for assistance.

## Compatibility

QuoteAdvantage is designed for use with Microsoft Dynamics CRM version 4.0 or 3.0. It is compatible with both the Professional version and the Small Business Edition of Microsoft CRM.

QuoteAdvantage is compatible with the Microsoft CRM web client and the connected Microsoft Outlook client. The disconnected Outlook client is not supported. In order to access QuoteAdvantage from Microsoft Outlook, you must be connected to the network.

## International Support

QuoteAdvantage is designed to support Internet Explorer clients that are in either English or Spanish. If a client computer with Spanish locale settings connects to QuoteAdvantage, then the user interface will automatically switch to display in Spanish. English and Spanish clients can be connected to the server simultaneously.

Please contact us if your business requires localization support for other languages. Callisto Systems may be able to assist you with creating a new language translation layer for your deployment.

## CHAPTER 2

# Licensing

### Open Source Licensing

QuoteAdvantage is an open source application that is released under the terms of the Microsoft Public License. Licensees are free to view, modify, and redistribute the source code for either commercial or non-commercial purposes. Please refer to the next section for precise details about the licensing terms.

For further information about the software, please refer to the development project for QuoteAdvantage at: [www.codeplex.com](http://www.codeplex.com)

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## CHAPTER 3

# Overview

### PLEASE NOTE:

**Do not attempt to install the application unless you already have Microsoft CRM running on a Microsoft Windows Server.** QuoteAdvantage requires access to a functional installation of Microsoft CRM.

QuoteAdvantage is unable to start without access to a Microsoft CRM server.

Installing QuoteAdvantage requires a basic knowledge of the following techniques:

1. Administrating Microsoft CRM
2. Administrating Microsoft Internet Information Server (IIS)

If you are not comfortable with these technologies, we recommend that you seek assistance from a qualified professional with expertise in these areas.

## Documentation and Samples

The documentation for QuoteAdvantage is installed to the following location:

\Program Files\QuoteAdvantage

In this directory, you will find the following items:

Installation Guide – Instructions for system administrators that are deploying the product

User Guide – Guidelines for customizing the system to meet specific business needs

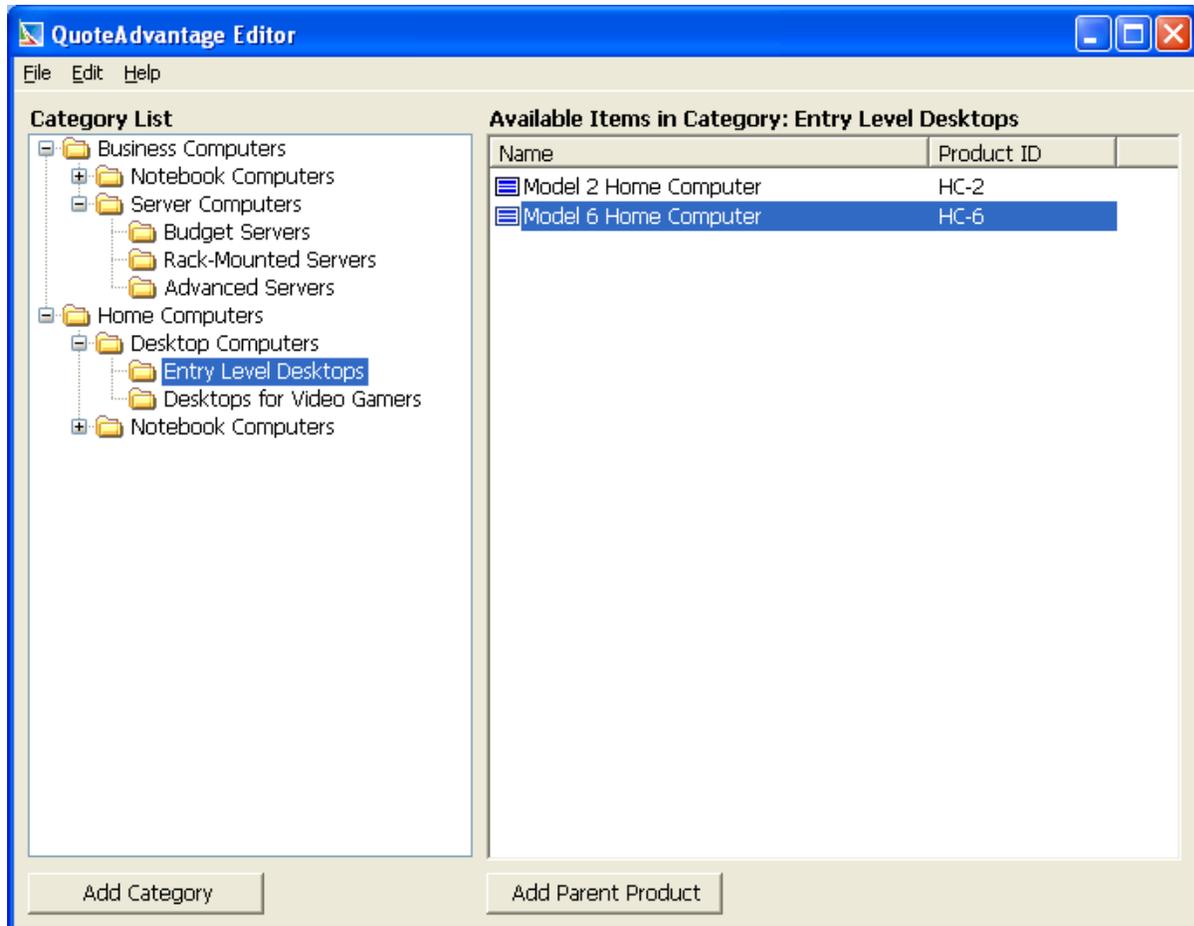
Sample Data – This folder contains several different samples that are referenced by the Installation Guide and the User Guide. Please examine the contents of this directory, because several of the sample files are helpful for completing the deployment process. Several steps of the installation process will directly refer to the example files that are included in this folder.

## QuoteAdvantage Editor

The QuoteAdvantage Editor is a stand-alone Windows desktop application that provides a facility for customizing how product catalog information is displayed inside of QuoteAdvantage. The editor application is installed at the following location:

\Program Files\QuoteAdvantage\QuoteAdvantageEditor.exe

The QuoteAdvantage Editor can be started by clicking Start – All Programs – QuoteAdvantage – QuoteAdvantage Editor. Optionally, a second installer is available for deploying the editor onto a separate system that can connect to the Microsoft CRM server remotely.



## CHAPTER 4

# Confirm Prerequisites

Before beginning the installation process, confirm that the following requirements have been met:

1. **Basic System Administration Skills** – In order to successfully complete the deployment, you will need to have basic familiarity with administering Windows Server, IIS, and Microsoft CRM.
2. **Microsoft CRM** – QuoteAdvantage is an add-on to Microsoft CRM. As a prerequisite, Microsoft CRM must be up and running.
3. **Administrative Access to the Web Server** – QuoteAdvantage can only be deployed by an Administrator for the web server where Microsoft CRM is deployed. If you do not have administrative access to this server, then you should seek assistance from someone who has the necessary security access.
4. **Administrative Access to Microsoft CRM** – As part of the setup process, the QuoteAdvantage installer will need to be able to login to Microsoft CRM as the Administrator. This is necessary in order to automatically customize the CRM database schema and user interface.

If you do not have the necessary expertise and security privileges, we recommend that you seek assistance from your system administrator.

## Microsoft CRM Web Application Folder

Before you begin the installation process, you should confirm the location where the Microsoft CRM web application folder is installed. The QuoteAdvantage web application will be deployed into a subdirectory below Microsoft CRM.

The location of the Microsoft CRM web application will vary depending upon the edition of Microsoft CRM that you are using and how your deployment was customized. Typical locations for the Microsoft CRM web application folder are as follows:

Microsoft CRM Professional: C:\inetpub\wwwroot\

Microsoft CRM Small Business Edition: C:\Program Files\Microsoft CRM\CRMWeb\

Please identify the correct location of this folder on your system before installing QuoteAdvantage. If necessary, inspect the IIS configuration to determine where Microsoft CRM was deployed.

## QuoteAdvantage Web Application Folder

QuoteAdvantage will automatically deploy its web application files into a folder that is located beneath the Microsoft CRM web application folder. Typical locations for the QuoteAdvantage web application folder are:

Microsoft CRM Professional: C:\inetpub\wwwroot\QuoteAdvantageWeb

Microsoft CRM Small Business Edition: C:\Program Files\Microsoft CRM\CRMWeb\QuoteAdvantageWeb

This location is based on where Microsoft CRM is deployed, and is not adjustable.

## CHAPTER 5

# Install QuoteAdvantage

In order to install QuoteAdvantage, you will need to have administrative access to the web server where Microsoft CRM is installed.

Begin the installation process by logging into to the Windows Server where Microsoft CRM is deployed as the Administrator. Make sure that the Microsoft CRM server is up and running. The QuoteAdvantage installer will need to communicate with the CRM server in order to complete the installation.

Run the setup.exe application to install QuoteAdvantage onto the web server with Microsoft CRM. For most installations, we recommend using the default values for all options that are presented by the installer application.

The following values can be adjusted to specify how the web applications should be deployed:

## Installation Folder

By default, QuoteAdvantage will be installed into a new folder named C:\Program Files\QuoteAdvantage. This folder will contain the product documentation and sample data.

The QuoteAdvantage web application will be automatically deployed into a second folder in the same directory where the Microsoft CRM web application is located. The location of the web application will vary depending upon the edition of Microsoft CRM that you are using and how your deployment was customized. Typical locations for the QuoteAdvantage web application are:

Microsoft CRM Professional: C:\inetpub\wwwroot\QuoteAdvantageWeb

Microsoft CRM Small Business Edition: C:\Program Files\Microsoft CRM\CRMWeb\QuoteAdvantageWeb

The location of the QuoteAdvantage web application folder is closely tied to the location of Microsoft CRM and is not adjustable.

## Test User Name

As part of the installation process, you will need to provide the user ID for someone who will have permission to login and test the system. This person should be a Microsoft CRM Sales user that is familiar with building sales quotes. Optionally, you may prefer to use your own personal ID for this so that you can test the system yourself. Refer to Chapter Seven for detailed information about licensing and specifying additional user names for QuoteAdvantage.

The installation process requires IIS to be restarted. The QuoteAdvantage installer will offer the option to automatically reset IIS for you. If you do not reset IIS through the installer, please make sure that you perform this step manually. Microsoft CRM will not function correctly unless IIS has been restarted. You can reset IIS by performing the following steps:

- Click Start – Run...
- Type: iisreset. Press OK.
- It will usually take several seconds for the process to complete.

## **Additional Information**

After installing the application, look in the folder where you installed QuoteAdvantage (typically, C:\Program Files\QuoteAdvantage) for the readme.htm file. This file will contain additional information about the application that was added after the formal documentation phase had already been completed.

## CHAPTER 6

# Testing with AdventureWorks

If your test environment includes the AdventureWorks Cycle sample data that ships with Microsoft CRM, then you will be able to immediately start building quotes with QuoteAdvantage. The installer will automatically add support for this sample data. If you encounter any problems while performing the steps in this test, please refer to the Troubleshooting section at the end of the Installation Guide.

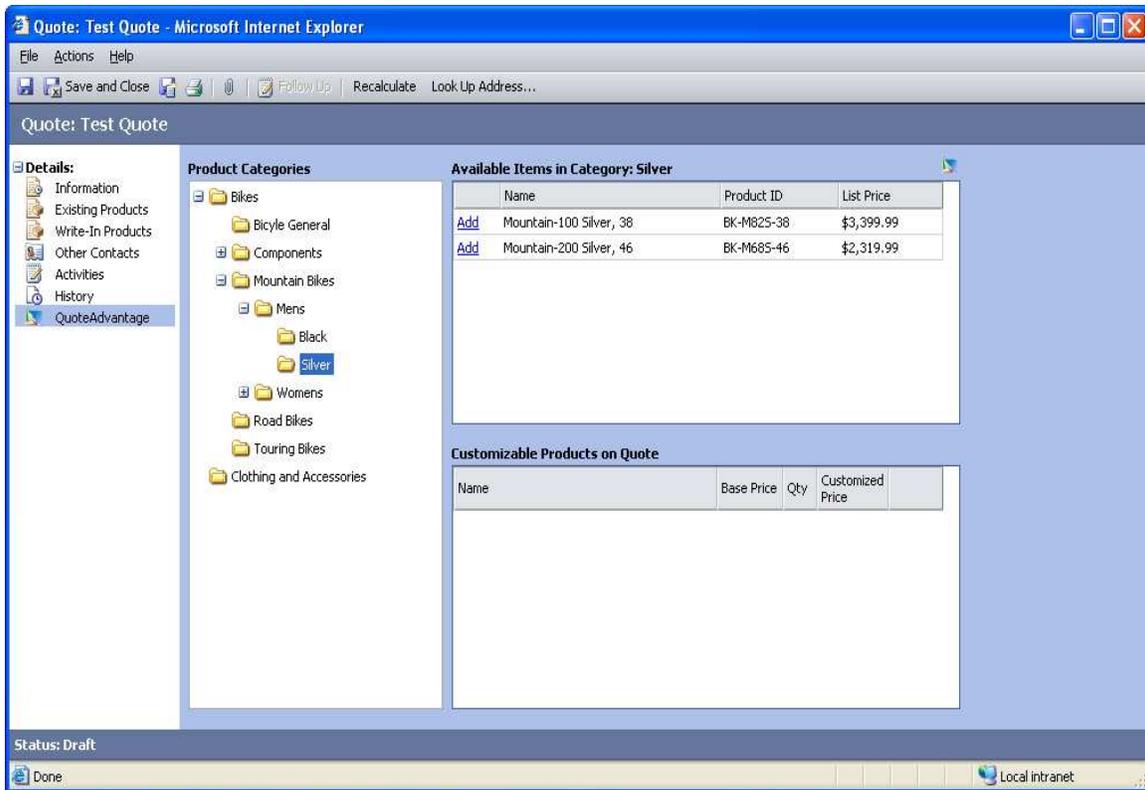
If you do not have the AdventureWorks sample data installed, please continue to Chapter 6.

## Create a Bicycle Quote

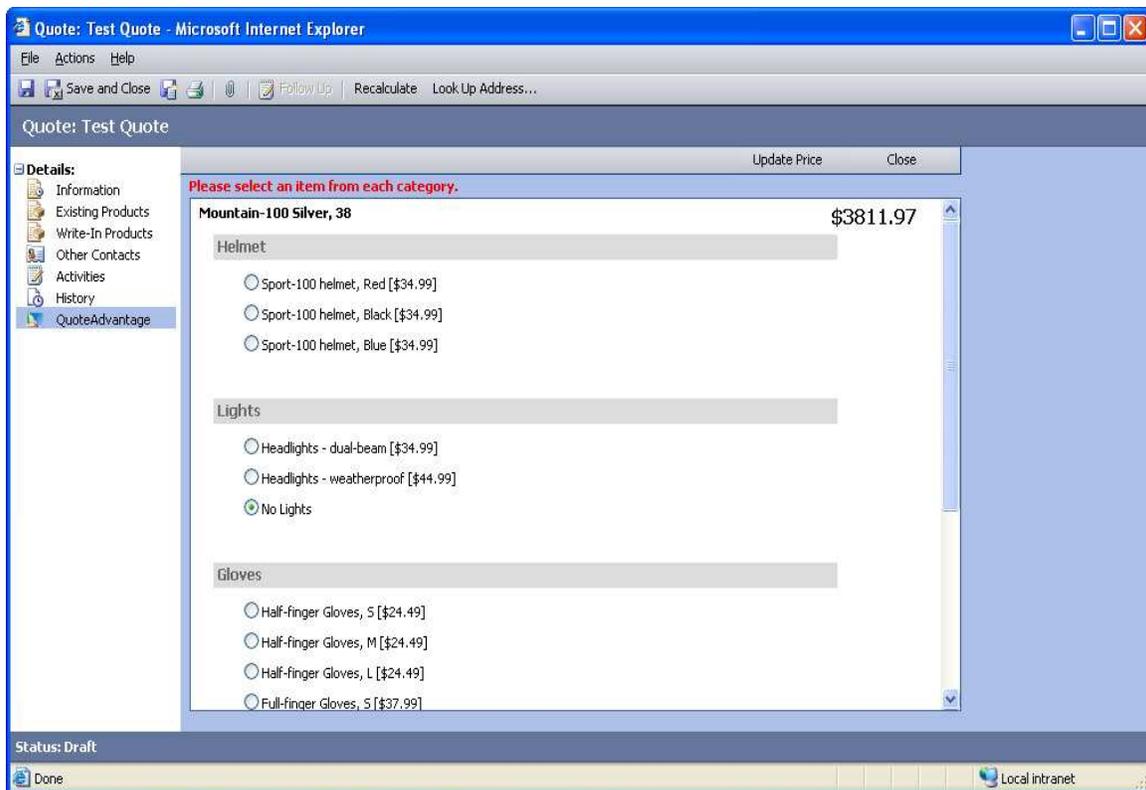
To build a quote with bicycle products from AdventureWorks, perform the following steps:

1. Switch to the Sales view in Microsoft CRM and then go to the Quotes page. (please refer to the Troubleshooting section if the Sales view is not available on the left-hand navigation pane)
2. Switch to the Quotes list.
3. Create a new Quote.
4. Specify the required fields for a new Quote: Name, Customer, and Price List
5. Save the Quote
6. Switch to the QuoteAdvantage tab by clicking the QuoteAdvantage icon on the left navigation pane
7. The QuoteAdvantage user interface should appear. It is normal for this window to load slowly the very first time that it is accessed after resetting IIS. It will load quickly for subsequent accesses. If the QuoteAdvantage window does not appear, please refer to the Troubleshooting section in Chapter 11.

8. In the Product Category list, navigate to the Bikes / Mountain Bikes / Mens / Silver category



9. In the Available Items list at the upper right, click one of the links to add a mountain bike to the quote.
10. In the Customizable Products list at the lower right, click the link for the bike that you have added. The customization window will appear.



11. Select one item from each category and press the Close button at the upper right corner. You will be returned the initial screen for QuoteAdvantage. The Customized Price for your bicycle should reflect the items that you selected.
12. Switch from the QuoteAdvantage screen to the Existing Products screen by clicking the icon on the left navigation list.
13. All of the items that you selected should be displayed in the quote product list.

If you have successfully completed the steps in this test process, then QuoteAdvantage is properly installed and working correctly. If you encounter any problems while performing the steps in this test, please refer to the Troubleshooting section at the end of the Installation Guide.

## CHAPTER 7

# Testing with Custom Data

**Please Note:** We recommend testing in a non-production environment. Always ensure that you have proper backups of critical business data.

## Overview

In this chapter, we will walk you through the steps for configuring QuoteAdvantage so that it can be used to create quotes that contain items from your company's product catalog. For a comprehensive discussion of the steps that are outlined in this chapter, please refer to the User's Guide.

For the purposes of this test, you will need to select three products from your product catalog: one parent product and two child products. A "child product" is an add-on component that is attached to a parent product. For example, a disk drive is a child product that would be attached to a computer which is a parent product.

A possible example for the test scenario in this chapter would be a computer and two add-on components.

In order to confirm that QuoteAdvantage is properly installed, you will need to either add some test products to your Microsoft CRM Product Catalog or use some of the currently defined items in your product catalog as test subjects. If it is convenient, you can perform this test with Microsoft CRM's Adventure Works Cycle sample data.

## Product ID Values

For the purposes of this test, you will need to select three products from your product catalog. In Microsoft CRM, a Product ID is a unique identifier that provides an easy way to distinguish one product from another.

The concept that will be tested is that Products #2 and #3 are enhancements that can be applied to Product #1. Before beginning, ensure that your Microsoft CRM Product Catalog contains at least three products that can be used for testing. If you need to create new products, consult the Microsoft CRM User's Guide for additional information about how to add products to the Product Catalog.

For test purposes, the products that are listed in Adventure Works Cycle sample data can be used. If you are working with the Adventure Works Cycle sample data, we recommend using the following products for testing:

Product #1: "HL Mtn Frame – Black, 42" (Product ID = FR-M94B-42)

Product #2: "Headlights – dual beam" (Product ID = LT-H902)

Product #3: "Headlights – weather proof" (Product ID = LT-H903)

If you don't have the Adventure Works Cycle sample data installed, then any other three products can be used instead. It may be preferable to create three temporary products for testing purposes.

Please identify the three products that you would like to use for the initial test of QuoteAdvantage. Make a note of the Product ID values for these items. You will need to refer to these Product IDs in the next section.

## QuoteAdvantage Configuration Files

QuoteAdvantage loads product catalog information from two types of XML configuration files:

1. CategoryList.xml - Provides category information about parent products
2. ChildProducts.xml – Provides detailed information about child products

A typical system will have one CategoryList.xml file and many ChildProduct.xml files. The ChildProduct.xml files are usually given descriptive file names to indicate the type of child products that are being tracked. For example, a set of files for tracking computer sales might be named: CategoryList.xml, HomeComputers.xml, ServerComputers.xml, and NotebookComputers.xml.

These XML files are deployed to the QuoteAdvantageWeb\bin folder. Typical locations for the QuoteAdvantage web application folder are:

Microsoft CRM Professional: C:\inetpub\wwwroot\QuoteAdvantageWeb\bin

Microsoft CRM Small Business Edition: C:\Program Files\Microsoft CRM\CRMWeb\QuoteAdvantageWeb\bin

## QuoteAdvantage Editor

The QuoteAdvantage Editor is a Windows desktop application that provides a facility for managing the XML configuration files that are used to specify the products that are displayed in QuoteAdvantage. Please refer to the User Guide for a detailed discussion of how to use the QuoteAdvantage Editor. This section of the Installation Guide will provide a brief introduction that will allow you to test QuoteAdvantage with three sample products.

The editor application is installed at the following location:

\Program Files\QuoteAdvantage\QuoteAdvantageEditor.exe

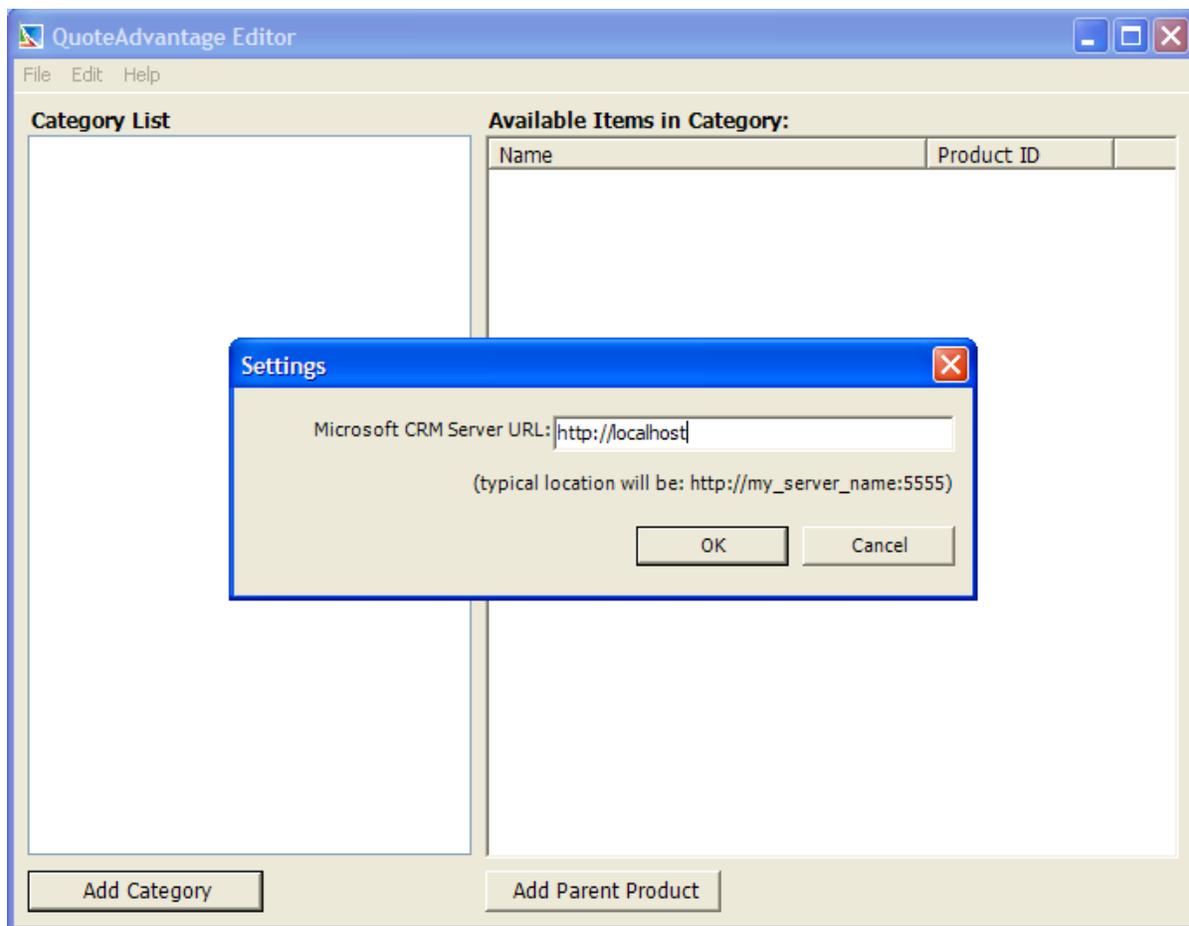
The QuoteAdvantage Editor can be started by clicking Start – All Programs – QuoteAdvantage – QuoteAdvantage Editor.

## Connecting to Microsoft CRM

The first time that you start the QuoteAdvantage Editor, the application will automatically attempt to connect to Microsoft CRM on the local machine. If this connection is not successful, then you will be prompted to specify connection information to your Microsoft CRM server. You will need to enter the URL to your Microsoft CRM server. Typical examples might be similar to one of the following:

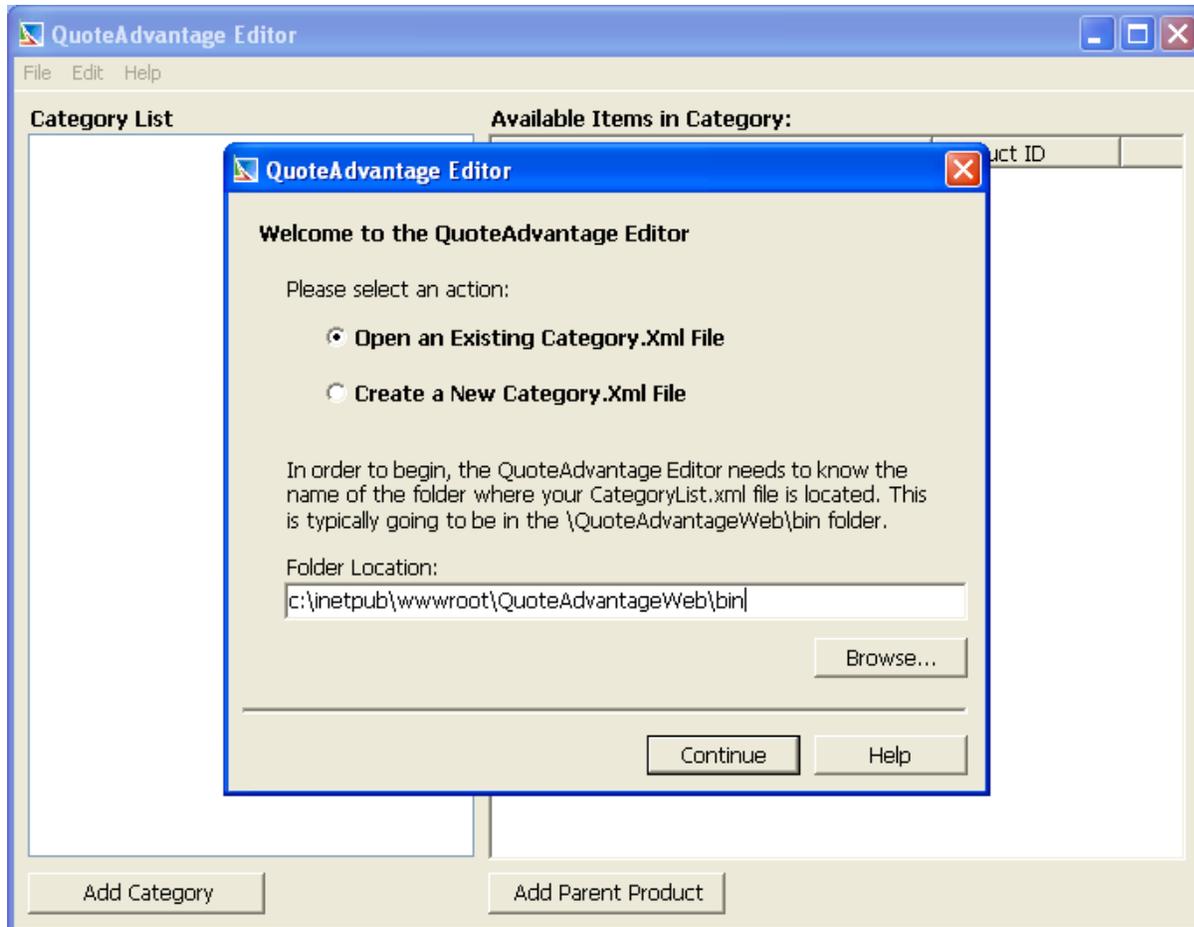
http://MyServerName  
http://MyServerName:5555  
http://localhost  
http://192.168.1.123

If your server is located on a remote machine, then you will need to replace “MyServerName” with the correct machine name. If you need to adjust this setting in the future, the CRM connection string is accessible from the File – Settings command in the QuoteAdvantage Editor.



## Welcome to the QuoteAdvantage Editor

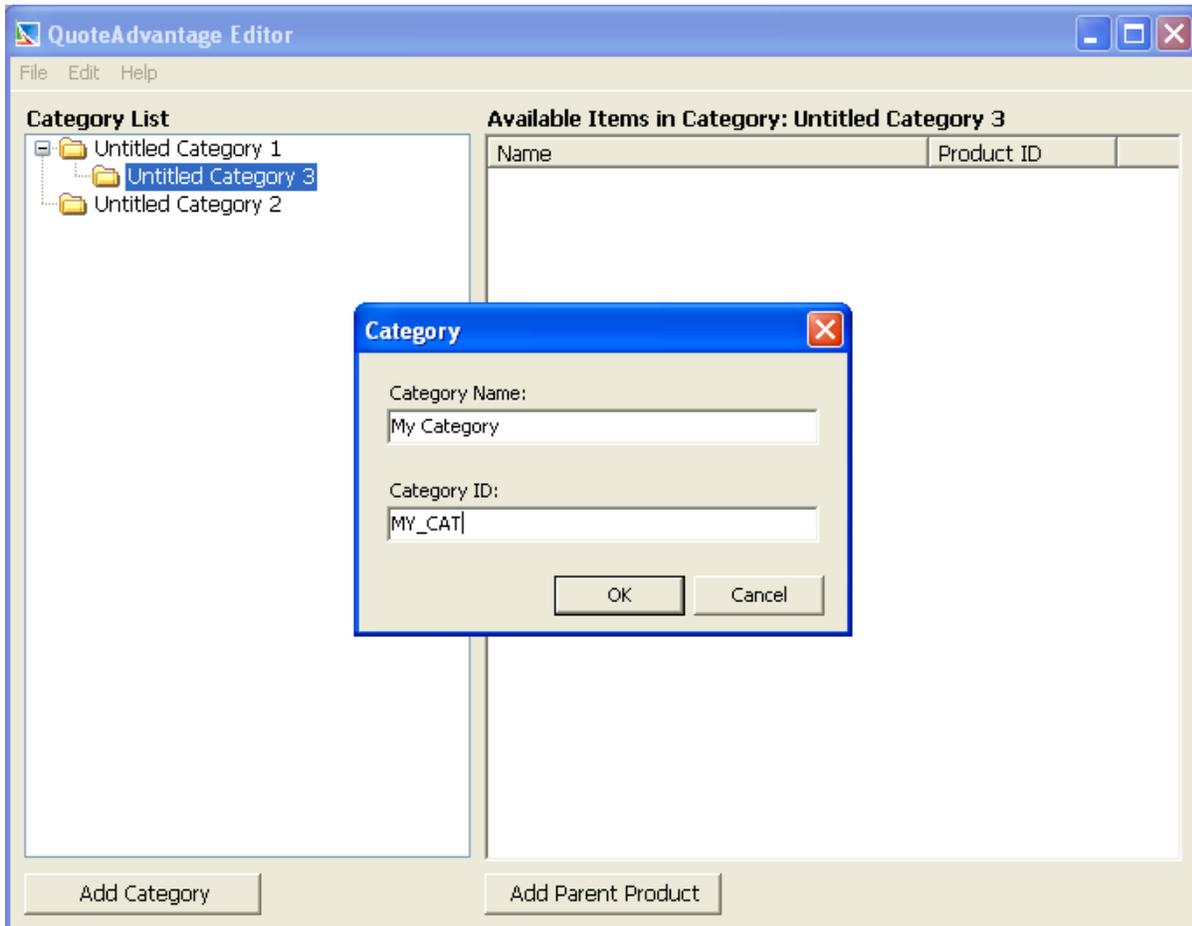
The first step for working with the QuoteAdvantage Editor is to specify the location of your CategoryList.xml file. Typically, the path to this file will be: C:\inetpub\wwwroot\QuoteAdvantageWeb\bin\CategoryList.xml



Click the second option button to create a new CategoryList.xml file at the standard location: C:\inetpub\wwwroot\QuoteAdvantageWeb\bin\CategoryList.xml. Press the Continue button and then “Yes” to confirm that you want to replace the existing file. By default, QuoteAdvantage installs configuration files for the AdventureWorks sample data. It’s OK to overwrite these files. They can be easily restored later if necessary.

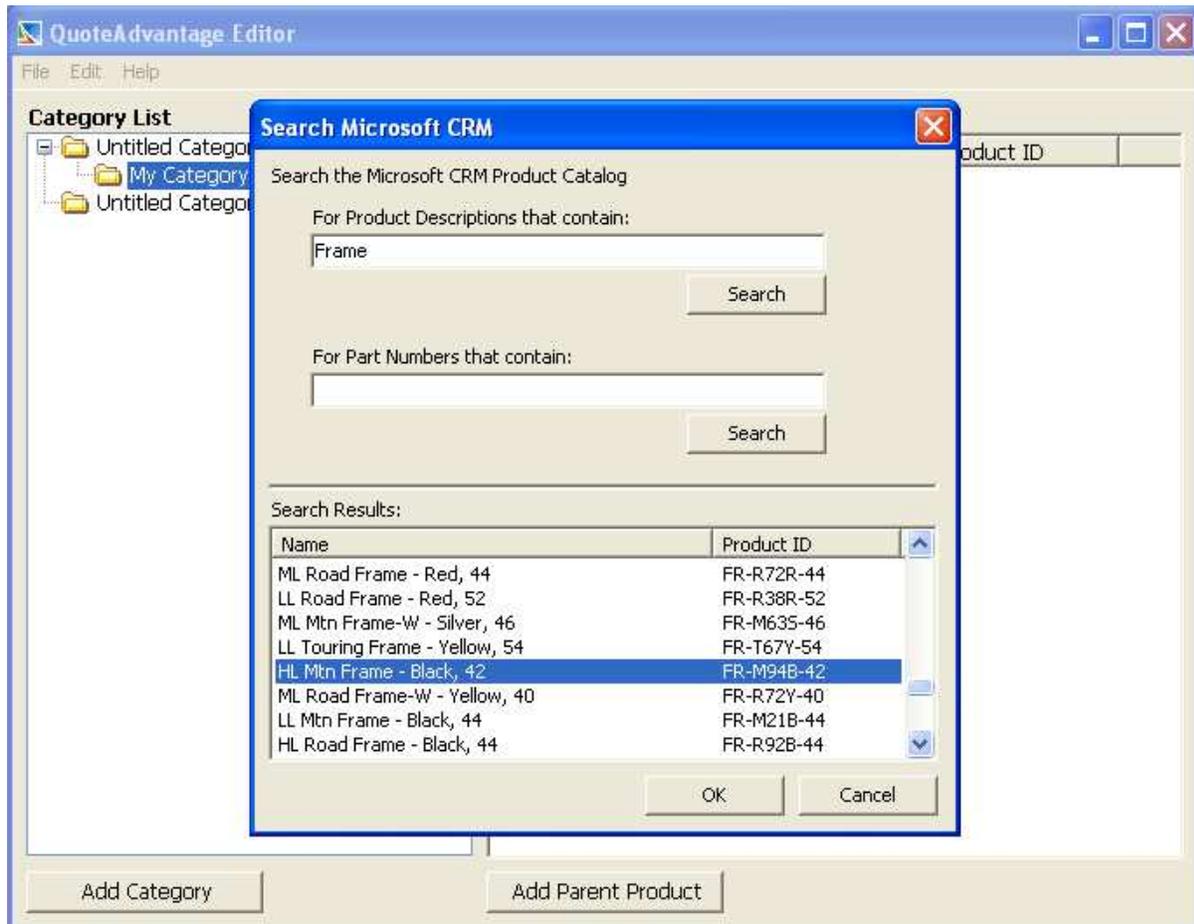
## Edit Categories for Parent Products

QuoteAdvantage Editor will open with a newly created category list that contains three untitled categories. Expand the category tree list and select the nested category named “Untitled Category 3”. Right-click the category and select the Modify command. Change the category name to “My Category” and the category ID to “MY\_CAT”. Press OK to apply your changes.



## Add Parent Products

Press the “Add Parent Product” button near the bottom of the screen. The Parent Product window will appear. Press the Search button to query Microsoft CRM for a specific item in the Product Catalog. Type the word “Frame” into the search box and press the Search button. All products in the catalog that contain the word “Frame” will be displayed. If you have the AdventureWorks sample data installed, select the “HL Mtn Frame – Black, 42 / FR-M94B-42” item.



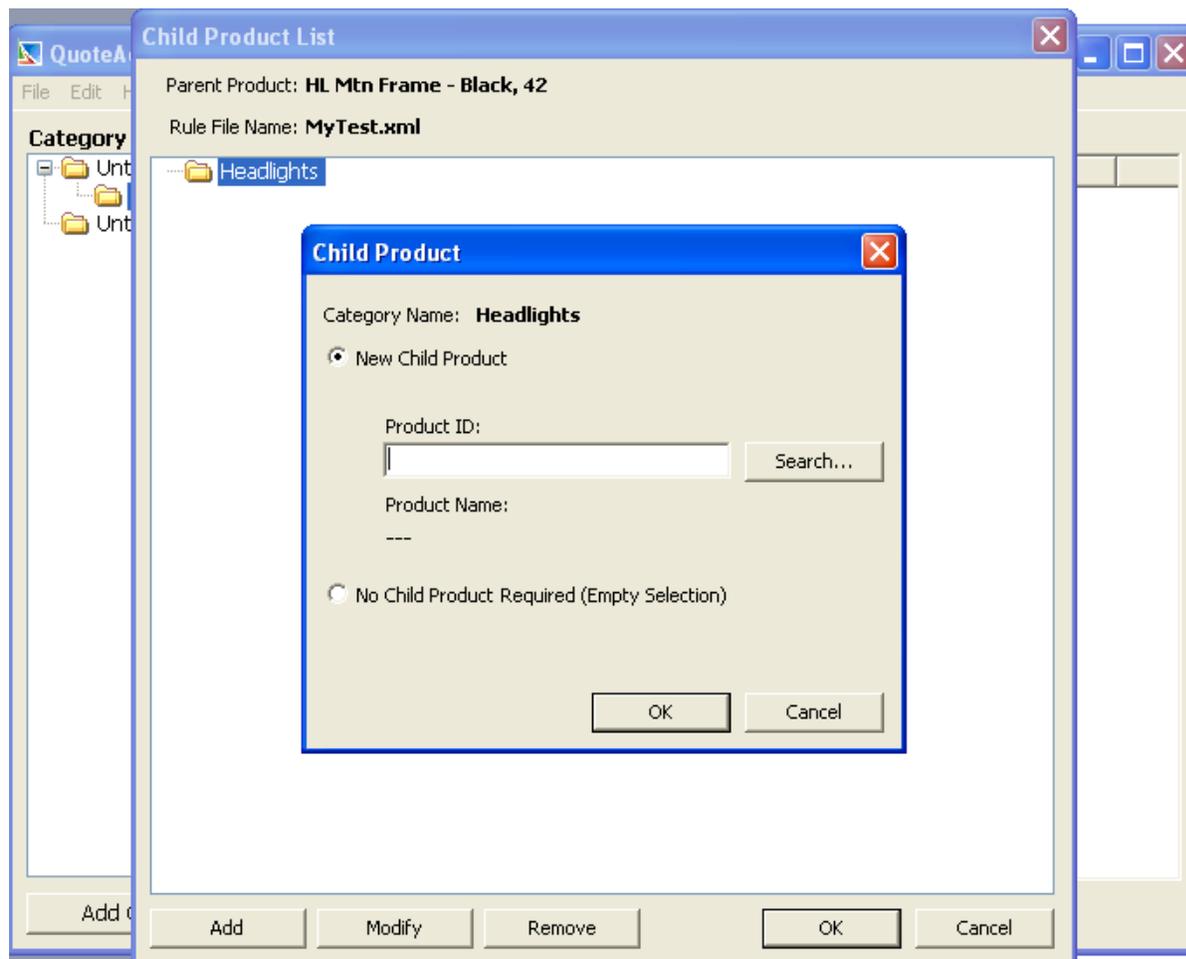
If you do not have the sample data, then search for the appropriate parent product #1 that you made a note of in the previous section. Once you have selected the parent product from Microsoft CRM, press OK.

Press the New button near the Rule File Name box. Enter “MyTest” as the name of your rule file. Press OK to create your new rule file. Press OK to close the Parent Product window. The Parent Product that you specified should appear in the list. Select File->Save from the QuoteAdvantage Editor menu to save your changes.

## Add Child Products

Right-click your Parent Product entry and select the “Child Products” command. The Child Product List window will appear with two untitled categories in the list. Right-click the first category and select the “Modify” command. Rename the category to “Headlights”.

Next, we will add the child products. Press the “Add” button and the Add Item window be displayed. Select “Child Product” and press OK. The Child Product window will appear.



Press the Search button to query Microsoft CRM for a specific item in the Product Catalog. Type the word “Headlights” into the search box and press the Search button. All products in the catalog that contain the word “Headlights” will be displayed. If you have the AdventureWorks sample data installed, select the “Headlights – dual beam / LT-H902” item. If you do not have the sample data, then search for the appropriate child product #2 that you made a note of in the previous section. Once you have selected the child product from Microsoft CRM, press OK. The Child Product that you specified should appear in the “Headlights” category.

Next, add the second child product by repeating these same steps, but select the “Headlights – weatherproof / LT-H903” item (or the appropriate child product #3 that you made a note of in the previous section).

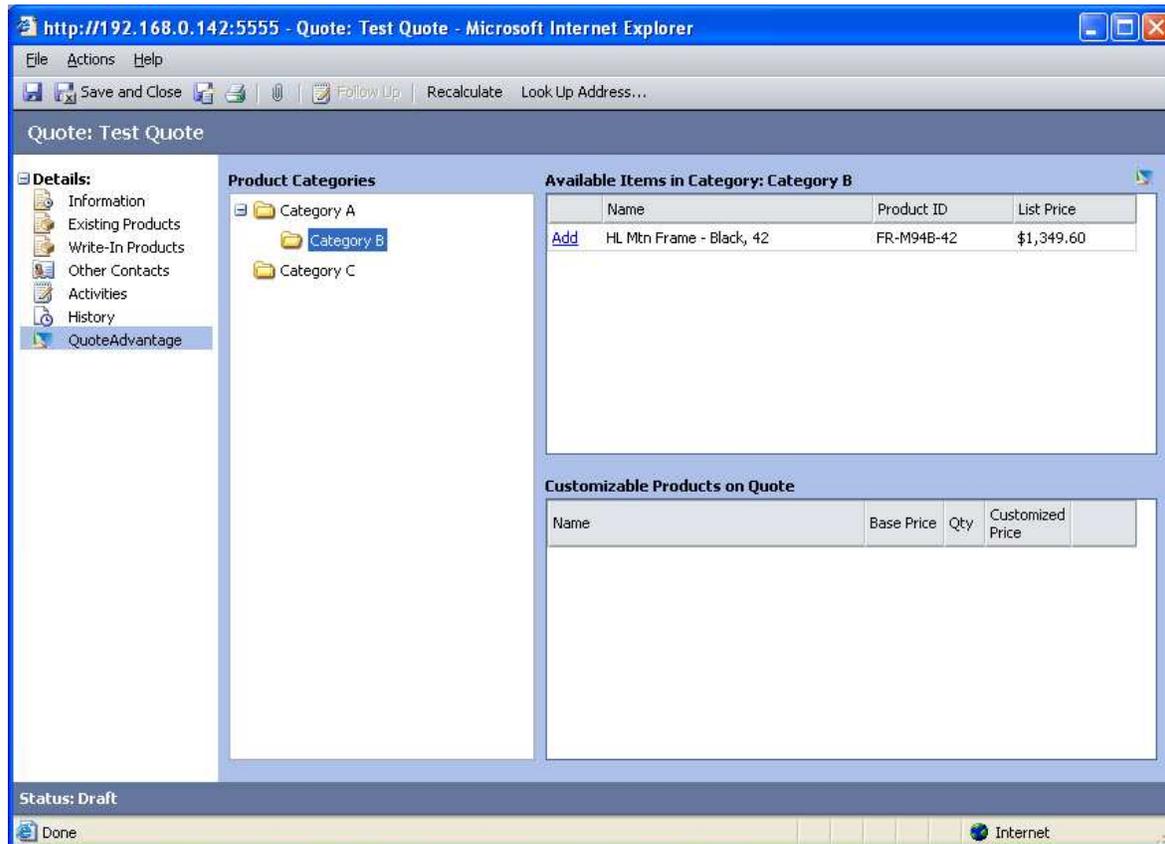
Once you have added the two child products, press OK in the Child Product List window. The QuoteAdvantage Editor will prompt you to save the changes to the “MyTest.xml” rule file. Press “Yes” to save your child product modifications.

When you return to the QuoteAdvantage Editor main window, select File-Save from the pull-down menus to apply your changes to the CategoryList.xml file. At this point, the test data that you entered should be ready for use in Microsoft CRM.

## Test the System

At this point, it is possible to verify the basic functionality of QuoteAdvantage. To confirm that the installation was successful, perform the following steps:

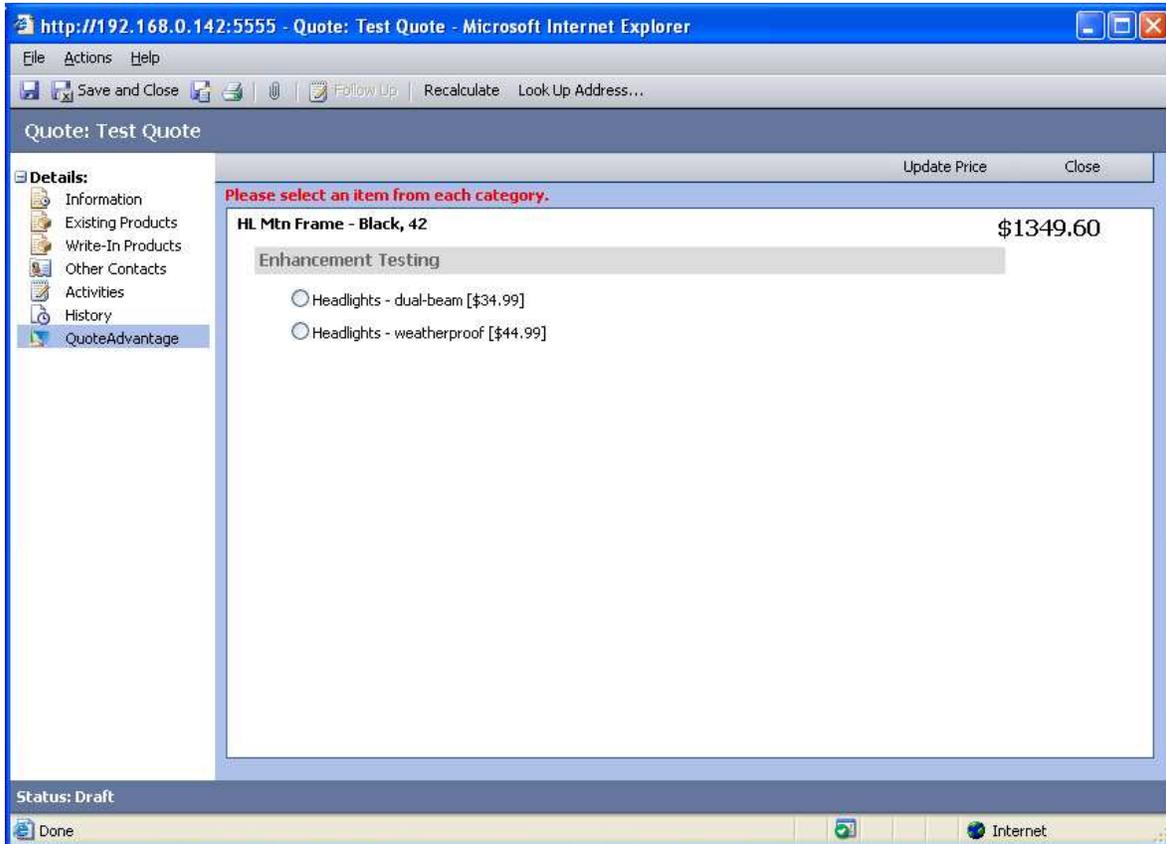
1. In Microsoft CRM, navigate to the Sales area, and click the Quotes tab on the left navigation bar.
2. Click the “New Quote” button on the toolbar at the upper right-hand corner of the screen.
3. Enter test values for the Name, Potential Customer, and Price List fields.
4. Press the Save button to finish initializing the Quote.
5. In the Quote window, click the “QuoteAdvantage” tab at the bottom of the left navigation list. The QuoteAdvantage page should appear. It is normal for this screen to take a long time to load for the very first time that it is used. Subsequent page loads will be much faster. If QuoteAdvantage does not appear, please see the Troubleshooting section in Chapter 11.



6. In the Product Categories tree list on the left, expand the node for “Category A”. Click the “Category B” node. The product that you specified as Product #1 should appear in the Available Items List. If the product is not listed in Category B, then refer to the Troubleshooting section in Chapter 11.

7. Click the “Add” link in the Available Items List to add the product to the quote. The item will be inserted into the “Customizable Products” list in the lower portion of the Quote window.

8. In the Customizable Products List, click the Name link for the newly added item. The Customize Products screen will be displayed with the two enhancement items listed (Product #2 and Product #3).



9. Click the radio button for one of the enhancement items. Press the Update Price button in the upper right-hand corner. The price should update to reflect adding the enhancement item.

10. Press the Close button to return to the QuoteAdvantage screen.

11. Click the Products link on the left-hand navigation bar. On the Products screen, click the green “Refresh Grid” button at the upper right hand corner of the product list. The two newly added products should appear in the product list.

Congratulations! You have finished setting up QuoteAdvantage for Microsoft CRM. If you have successfully completed the test steps that are outlined above, then QuoteAdvantage is properly deployed and functioning correctly.

Please refer to the User’s Guide for detailed information about how to customize and enhance the system to match your company’s business needs.

## CHAPTER 8

# Application Settings

## Overview

This chapter provides detailed information about the application settings files for QuoteAdvantage. This information is provided for reference purposes to assist administrators with advanced deployment requirements. In most situations, a detailed understanding of these settings is not required.

If you are not comfortable with manually editing XML files, you should seek the assistance of an experienced system administrator or software developer. For your convenience, example copies of each of the XML files that are modified during the installation process are included in the \Program Files\QuoteAdvantage\Sample Data folder. Copying information from these examples is a good strategy for minimizing the risk of data entry errors.

QuoteAdvantage settings are stored in the following XML files:

**isv.config.xml** – Used by Microsoft CRM for tracking user interface customizations

**web.config** – Microsoft CRM uses a web.config file to track its internal application settings

**web.config** – There is a second web.config file for managing the settings for QuoteAdvantage

**CategoryList.xml** – Specifies the product category tree list that appears on the QuoteAdvantage page

**Rules.xml** – A set of rule files are used to provide the child product configuration options for each specific type of parent product

## isv.config.xml File

The isv.config.xml is a standard part of the Microsoft CRM installation that is located in the \_Resources folder of the Microsoft CRM web application folder. This file is used for customizing the user interface in Microsoft CRM. Please refer to the Microsoft CRM documentation for detailed information about how to adjust and maintain this file.

QuoteAdvantage adds the following customizations to this file at the end of the <Entities> section in order to insert the QuoteAdvantage tab at the end of the navigation list for a sales quote in Microsoft CRM:

```
<quote>
  <!-- The Quote Left Nav Bar -->
  <NavBar ValidForCreate="0" ValidForUpdate="1">

    <NavBarItem
      Icon="/QuoteAdvantage/QuoteAdvantageSmall.gif"
      Title="QuoteAdvantage"
      Url="/QuoteAdvantage/CustomizeQuote.aspx"
      Id="QuoteAdvantage">
    </NavBarItem>

  </NavBar>
```

</quote>

Examples of these XML entries are included in the `isv.config.xml` file that is located in the `\Program Files\QuoteAdvantage\Sample Data\Initial Setup` folder. You can either use this sample `isv.config.xml` file as-is or you can merge its contents with another `isv.config` file that already contains other customizations.

If your `isv.config.xml` file already has customizations, then you will need to check to make sure if a `<quote>` section has already been defined. If one already exists, then you should be able to safely add a `<NavBarItem>` to the existing set of customizations.

If you perform any adjustments to the `isv.config.xml` file, be sure to restart IIS in order to apply your changes to Microsoft CRM.

## web.config File (Microsoft CRM)

Microsoft CRM manages its internal application settings using the `web.config` file that is located in the folder where the Microsoft CRM web application is installed. Please refer to the Microsoft CRM documentation for additional detail about the contents of this file.

The location of the web application will vary depending upon the edition of Microsoft CRM that you are using and how your deployment was customized. Typical locations for the Microsoft CRM `web.config` file are:

Microsoft CRM Professional: `C:\inetpub\wwwroot\`  
 Microsoft CRM Small Business Edition: `C:\Program Files\Microsoft CRM\CRMWeb\`

QuoteAdvantage requires one modification to the `web.config` file in order to add the QuoteAdvantage tab to the sales quote screen in Microsoft CRM. The installer for QuoteAdvantage automatically modifies the `ISVIntegration` setting key in the CRM `web.config` file. This setting is located near the end of the file under: `<appSettings>`

By default, the `ISVIntegration` key is set to: "None". For QuoteAdvantage to operate correctly, this value needs to be set to: "Web".

```
<add key="ISVIntegration" value="Web" />
```

When this value is set to "Web", the contents of the `isv.config.xml` file are loaded into Microsoft CRM automatically when IIS starts up.

If you want to disable the integration entirely, you can return the value to "None".

```
<add key="ISVIntegration" value="None" />
```

After adjusting this setting, you will need to restart IIS in order to apply your changes.

## web.config File (QuoteAdvantage)

QuoteAdvantage manages its application settings with a second web.config file that is separate from the Microsoft CRM web.config file. This web.config file is located in the QuoteAdvantage web application folder.

The QuoteAdvantage web.config file contains the following setting:

QuoteAdvantage.CrmSdk.CrmService:

The name of the IIS virtual directory where Microsoft CRM is accessible as a web service. In most circumstances, the default value of the server's URL and "/MSCRMServices/2006/CrmService.asmx" is appropriate.

As an example, a typical web.config file might look like this:

```
<appSettings>
  <add key="QuoteAdvantage.CrmSdk.CrmService"
        value="http://my_server/mscrmservices/2006/crmservice.asmx" />
</appSettings>
```

Additional application settings are also available to customize the user interface for QuoteAdvantage. Please refer to Chapter 9 for a detailed discussion of these settings.

## Security

User login security is handled by Windows Active Directory and Microsoft CRM. Based on this, QuoteAdvantage will connect to the Microsoft CRM web service using the currently logged in user's credentials. This design does not introduce any additional security requirements. QuoteAdvantage uses the exact same login security that is used by Microsoft CRM.

## Database Schema Modifications

QuoteAdvantage requires additional data to be attached to Microsoft CRM's QuoteDetail object. The QuoteDetail object represents a Product that has been added to a specific Quote. QuoteDetails are individual line items on a Quote that have a specific price assigned to them.

When you install QuoteAdvantage, the following new database fields are automatically added:

1. QuoteDetail.qadv\_config\_parent\_id (string, 40 characters)  
QuoteDetailId of a line item's parent item on a quote.
2. QuoteDetail.qadv\_config\_category\_id (string, 128 characters)  
ID of the category that an item was added from.
3. QuoteDetail.qadv\_allow\_discounting (bit, default value: yes)  
Flag to indicate whether or not discounting is allowed for this item
4. QuoteDetail.qadv\_PercentDiscount (money, precision 2)  
Percentage amount that an item should be discounted
5. QuoteDetail.qadv\_PercentMarkup (money, precision 2)  
Percentage amount that an item's price should be increased

Each field name is prefixed with the letters qadv\_ in order to make them more easily recognizable in the database schema listings.

If you are completely uninstalling QuoteAdvantage, then you will need to manually remove these fields. Please refer to Chapter 10 for additional detail about this. If you are upgrading QuoteAdvantage, then the data in these fields should be seamlessly preserved and carried forward.

## CHAPTER 9

# User Interface Customizations

QuoteAdvantage provides a group of additional settings in the web.config file that can be used to customize the appearance of the application to better suit your business requirements.

QuoteAdvantage manages its application settings with a second web.config file that is separate from the Microsoft CRM web.config file. This web.config file is located in the QuoteAdvantageWeb application folder.

The following settings can be manually added to the <appSettings> section of the web.config file for QuoteAdvantage. After making changes to the web.config, you will need to reload the web page for QuoteAdvantage before the changes will be visible.

Name	Description
ShowStandardCostColumn	Display the cost column in the available products list
ShowListPriceColumn	Display the list price column in the available products list
ShowMultiplierColumn	Display the multiplier column in the quote products list
ShowPercentDiscountColumn	Display the percent discount column in the quote products list
ShowPercentMarkupColumn	Display the percent markup column in the quote products list
ShowQtyColumn	Display the quantity column in the quote products list
ProductCustomData1	Display a custom field in the quote products list
ParentProductCustomHeader1	Column header name for a custom field in the quote products list
ProductCustomData2	Display a custom field in the quote products list
ParentProductCustomHeader2	Column header name for a custom field in the quote products list
CustomizeLinkColor	Color of the hyperlink for a customizable item
ProposalShowParentProductCategoryNames	Display product category names in the proposal output

## Standard Cost Column

A Standard Cost column can be added to the available products list at the upper right of the QuoteAdvantage screen. By default, only the price from the current price list will be displayed. To activate the standard cost column and make it visible to the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowStandardCostColumn" value="true" />
```

Set the value to “true” to display the column or “false” to hide the column.

## List Price Column

A List Price column can be added to the available products list at the upper right of the QuoteAdvantage screen. By default, only the price from the current price list will be displayed. To activate the list price column and make it visible to the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowListPriceColumn" value="true" />
```

Set the value to “true” to display the column or “false” to hide the column.

## Multiplier Column

The Multiplier column can be removed from the customizable products list at the lower right of the QuoteAdvantage screen. By default, the Multiplier column will be hidden. To hide this column from the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowMultiplierColumn" value="false" />
```

Set the value to “true” to display the column or “false” to hide the column. The multiplier value adjusts the parent product price by multiplying it by the value. This can be used to either increase or reduce the price.

## Discount Column

The percentage discount column can be removed from the customizable products list at the lower right of the QuoteAdvantage. By default, the Discount column will be visible. To hide this column from the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowPercentDiscountColumn" value="false" />
```

Set the value to “true” to display the column or “false” to hide the column.

## Markup Column

The percentage markup column can be removed from the customizable products list at the lower right of the QuoteAdvantage. By default, the Discount column will be visible. To hide this column from the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowPercentMarkupColumn" value="false" />
```

Set the value to “true” to display the column or “false” to hide the column.

## Customized Price Column

The Customized Price column can be removed from the customizable products list at the lower right of the QuoteAdvantage screen. By default, the Customized Price column will be displayed. To hide this column from the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowCustomizedPriceColumn" value="false" />
```

Set the value to “true” to display the column or “false” to hide the column.

## Qty Column

The Qty column can be removed from the customizable products list at the lower right of the QuoteAdvantage screen. By default, the Qty column will be displayed. To hide this column from the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ShowQtyColumn" value="true" />
```

Set the value to “true” to display the column or “false” to hide the column.

## Adding Custom Data Columns

One or two additional columns can be added to the customizable products list at the lower right of the QuoteAdvantage screen. These columns can show any data field that is available in the Microsoft CRM database for Products. These custom columns can be activated by specifying the name of the data field that should be displayed and the text that should be displayed as the column header.

Add the following entries to the QuoteAdvantage web.config file to activate the first custom column:

```
<add key="ProductCustomData1" value="my_custom_column" />
<add key="ParentProductCustomHeader1" value="My Custom Column" />
```

Add the following entries to the QuoteAdvantage web.config file to activate the second custom column:

```
<add key="ProductCustomData2" value="my_second_column" />
<add key="ParentProductCustomHeader2" value="My Second Column" />
```

The values that are specified for ProductCustomData1 and ProductCustomData2 should be the exact column name from the ProductBase table in the SQL Server for Microsoft CRM.

## Link Color for Customize Parent Product Link

The color of the hyper links for customizable parent products in the list at the lower right of the QuoteAdvantage screen can be adjusted. By default, these links are blue. To change this color, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="CustomizeLinkColor" value="DarkRed" />
```

A complete range of color choices are available based upon the Microsoft .NET System.Drawing.Color class.

## Display Parent Category Names in Proposal

The full path of the category names for parent products can be displayed on the QuoteAdvantage proposal screen by adjusting the “ProposalShowParentProductCategoryNames” property. By default, this feature is turned off. To show these values to the user, add the following entry to the <appSettings> section of the QuoteAdvantage web.config file:

```
<add key="ProposalShowParentProductCategoryNames" value="true" />
```

Set the value to “true” to display the category names or “false” to hide them.

# Removing the Software

If you need to remove QuoteAdvantage from your Microsoft CRM server, you must perform three steps:

1. Run the QuoteAdvantage uninstaller from the Windows Control Panel.
2. Manually remove the customizations to the Microsoft CRM user interface
3. Manually remove the customizations to the Microsoft CRM database schema

The database and user interface customizations are separated away from the primary application in order to allow seamless upgrades of the software without damaging the underlying data in Microsoft CRM.

The following sections provide detailed instructions for removing the software:

## Uninstall QuoteAdvantage

Use the QuoteAdvantage uninstaller to remove the QuoteAdvantage web application and the related documentation and samples. Launch the uninstaller from the Windows Control Panel, by pressing Start – Control Panel – Add or Remove Programs. Select QuoteAdvantage from the list and press the Remove button to launch the uninstaller. The uninstaller application will automatically remove QuoteAdvantage and its related components.

Additionally, you will need to manually remove the user interface and database changes that QuoteAdvantage made to Microsoft CRM. QuoteAdvantage does not include any additional applications or adware. The uninstaller will automatically remove all of the application files that have not been customized. If you are completely removing QuoteAdvantage, then you will want to manually delete the Program Files\QuoteAdvantage and QuoteAdvantage web application folders after running the uninstaller.

## Remove Microsoft CRM User Interface Customizations

The customizations to Microsoft CRM that display the QuoteAdvantage tab on the navigation bar for a sales quote are managed from the `isv.config.xml` file in the `_Resources` folder that is located in the Microsoft CRM web application folder. Please refer to Chapter 8 for a detailed discussion of the contents of this file. You can remove QuoteAdvantage from this file by either manually editing the file to remove the customizations or deleting the file and renaming the backup file that was created when QuoteAdvantage was installed. If you do not want any customizations to be active for your installation of Microsoft CRM, then you can completely disable the `isv.config.xml` file by editing your `web.config` file for Microsoft CRM. Refer to Chapter 8 for additional details about this `web.config` file.

For a default installation, you can revert to the original settings for Microsoft CRM by performing the following steps:

1. Delete the `isv.config.xml` file in the `_Resources` folder
2. Restore the original file by renaming the `isv.config.xml BACKUP (date/time).txt` to `isv.config.xml`.
3. Disable the `isv.config` settings by manually editing the `web.config` file in the Microsoft CRM web application folder. In the `web.config` file, change the following entry:  
`<add key="ISVIntegration" value="Web" />`  
To: `<add key="ISVIntegration" value="None" />`

## Remove Microsoft CRM Database Customizations

The installer for QuoteAdvantage automatically adds several new fields to the database schema for Microsoft CRM. Please refer to Chapter 8 for a detailed discussion of these database fields. To manually remove these fields from your database, perform the following steps:

1. Login to Microsoft CRM as the Administrator
2. Select “Settings” on the left navigation bar
3. Select “Customization” at the upper right of the left navigation bar
4. Select “Customize Entities”
5. Scroll down and double-click “Quote Product” in the entity list
6. Select “Attributes” in the Details list
7. Scroll down and locate the items that begin with the prefix “qadv\_” in the Attribute list
8. Select each of the attributes that begins with the “qadv\_” prefix and press the X (Delete) toolbar button to remove the Attribute. The following attributes may need to be removed from the list:

- qadv\_config\_category\_id
- qadv\_config\_parent\_id
- qadv\_allow\_discounting
- qadv\_PercentDiscount
- qadv\_PercentMarkup

9. Press the Save and Close button to exit
10. In the Customize Entities list, select “Quote Product”
11. Press the “Publish” toolbar button to apply the changes to the CRM Server

## CHAPTER 11

# Troubleshooting

### Enable Microsoft CRM Error Messages

The first step to resolving a deployment issue is to enable Microsoft CRM to display useful error messages. Normally, detailed error messages are disabled for security reasons. In many cases, an error can occur and no warnings will be displayed to the user. To enable error messages, perform the following steps:

1. Using Windows Explorer, navigate to the folder where Microsoft CRM is deployed. For Microsoft CRM Professional, this may be in the `\inetpub\wwwroot\` folder. For the Small Business Edition of Microsoft CRM, this folder may be located at: `\Program Files\Microsoft CRM\CRMWeb`.
2. Open the `web.config` file in Notepad or your favorite XML code editor.
3. Find the `<appSettings>` section near the top of the file.
4. In the `<appSettings>` section, find the `<add key="DevErrors">` entry.
5. Set the value for `DevErrors` to "On".
6. Close and re-open Microsoft CRM in the web browser. Re-test the area where you suspect a problem was occurring. A detailed error message should be displayed.

### Enable Error Messages in QuoteAdvantage

If a runtime error occurs on a QuoteAdvantage screen, then the error message is controlled by a setting that is separate from Microsoft CRM. To enable error messages in QuoteAdvantage, perform the following steps:

1. Using Windows Explorer, navigate to the `\inetpub\wwwroot\QuoteAdvantageWeb` folder
2. Open the `web.config` file in Notepad or your favorite XML code editor.
3. Find the `<appSettings>` section near the top of the file.
4. Locate the `<customErrors>` section.
5. Set the value for "mode" to "Off". This will enable verbose error messages to be displayed.
6. Close and re-open Microsoft CRM in the web browser. Re-test the area where you suspect a problem was occurring. A detailed error message should be displayed.
7. After the issue has been corrected, be sure to return this setting to "On" in order to minimize the amount of error information that is displayed for end-users.

## QuoteAdvantage Support Page

The Support page provides information about the version of the software and the supplemental libraries that are being used. The Support page is available by navigating to the following URL:

<http://myserver/QuoteAdvantageWeb/Support.aspx>

To reach this page, you can either explicitly type this URL into your web browser's address bar or click the QuoteAdvantage icon at the upper right-hand corner of the QuoteAdvantage screen in Microsoft CRM.

## Errors Starting Microsoft CRM

An error has occurred. For more information, contact your system administrator. – Try Again

This type of error message will be displayed by Microsoft CRM if a serious error occurs as the application initializes. For additional detail, you will need Administrative privileges. Open the Event Viewer by pressing Start – All Programs – Administrative Tools – Event Viewer. In the “Application” section, look for errors that were generated by Microsoft CRM. You may find useful information here, but in many cases, it will be limited to stack trace information that is only valuable to Microsoft support personnel.

The most common source of this type of failure as a result of installing QuoteAdvantage is an error in the `isv.config.xml` file or in the `web.config` file. Carefully review the changes that were described in Chapter 8. A common problem is to mistype something in the XML. If a closing tag is missing or incorrectly spelled, this type of error message will probably be displayed. Proof your XML changes carefully. In many cases, the error may be difficult to see. If you can't find the source of the problem, try reverting back to the original versions of the `isv.config.xml` and `web.config` files.

If you experience problems saving changes to these configuration files, it may be because Microsoft CRM has locked them. To resolve this, restart IIS, and the locks should be released.

Remember, changes to the `isv.config` file are not actually applied until IIS has been restarted.

## Errors Loading the QuoteAdvantage Page

### 1. Sales link is not displayed on the left-hand navigation pane in Microsoft CRM

The left-hand navigation pane displays the links for reaching the Sales, Service, Settings, and other areas of Microsoft CRM. If the Sales link is not displayed, then the currently logged in user is not licensed for Microsoft CRM Sales. Switch to a different user that is properly licensed. A common problem is to be logged in as the Administrator. By default, the Administrator user is prevented from accessing the Sales area of the application. If you would like to change this, perform the following steps:

- Click Settings in the left-hand navigation panel
- Click Business Unit Settings
- Click Users
- Open the Administrator user record
- Un-check the “Restricted Access Mode” checkbox near the bottom of the page
- Save your changes
- Refresh the main Microsoft CRM window. The Sales link should appear

## 2. The request failed with HTTP status 400: Bad Request.

[ProductConfigException: Unable to connect to Microsoft CRM. Url: http://.... Server: my\_server  
UserName: CRM\Administrator]

If the QuoteAdvantage tab fails to load in Microsoft CRM, then the most likely problem is a mistake in the web.config file in the QuoteAdvantageWeb folder. Inspect this file to make sure that the QuoteAdvantage.CrmSdk.CrmService setting is correct. Refer to Chapter 8 for additional information.

## 3. The underlying connection was closed: The remote name could not be resolved.

[ProductConfigException: Unable to connect to Microsoft CRM. Url: http://.... Server: my\_server  
UserName: CRM\Administrator]

If the QuoteAdvantage tab fails to load in Microsoft CRM, then the most likely problem is a mistake in the web.config file in the QuoteAdvantageWeb folder. Inspect this file to make sure that the QuoteAdvantage.CrmSdk.CrmService setting is correct. Refer to Chapter 8 for additional information.

## 4. Error: Could not find file "c:\inetpub\wwwroot\QuoteAdvantageWeb\bin\CategoryList.xml"

This problem is caused when the CategoryList.xml file was not found. Refer to Chapter 6 for information about how to create this file.

## 5. The QuoteAdvantage icon is not displayed on the Quote navigation bar

Inspect the isv.config file in the \_Resources folder. The <NavBarItem> entry is probably incorrect. Also, verify that the QuoteAdvantage.gif file is available in the QuoteAdvantage folder. See Chapter 8 for additional information.

## 6. Parser Error Message: Access is denied : 'infragistics.webui.ultrawebnavigator' or Access is denied: 'Infragistics.WebUI.Shared.v5.1'.

This problem can be caused by a conflict between the Microsoft IIS Indexing Service and the component that QuoteAdvantage uses to display tree lists. The workaround is to either disable the Indexing Service or prevent it from indexing the folders that are used by ASP.NET. In many situations, indexing is turned on, but it is not actually used by any application. If you do not need indexing, you can disable it from the Services application in the Administrative Tools section of the Windows Control Panel. To disable the Indexing Service, set its Startup Type value to "Disabled."

If you require the Indexing Service for other applications, you can prevent it from indexing the executables that are used by ASP.NET by performing the following steps:

- Click Start – Administrative Tools – Computer Management
- Select Services and Applications entry
- Select the Indexing Service entry
- Under Indexing Service, select System and then Directories
- In the Directories listing, use the context menu to add a new directory
- Add "C:\Windows\Microsoft.NET\Framework\v1.1.4322\Temporary ASP.NET Files" to the list

- Select “No” to prevent this directory from being included in the index.

Please refer to Microsoft Tech Support for additional information about this issue with ASP.NET.

MSDN Article ID: 329065

PRB: Access Denied Error When You Make Code Modifications with Index Services Running

<http://support.microsoft.com/default.aspx?scid=kb;en-us;329065>

## Technical Support

QuoteAdvantage is open source software. Technical support may be available from the QuoteAdvantage software development project that is hosted at [www.codeplex.com](http://www.codeplex.com).

Additionally, Callisto Systems (the original authors of the software) may be able to assist you. Please visit our website at [www.errorfreeorders.com](http://www.errorfreeorders.com) or send email to: [support@errorfreeorders.com](mailto:support@errorfreeorders.com)

We will be happy to help you with any installation or setup issues that you are experiencing. Callisto Systems also offers consulting services to help you with customizing QuoteAdvantage to handle your company's business needs. We have over fifteen years of experience with building software to solve sophisticated pricing and quoting problems.

Please let us know if we can help you!