



Microsoft ACT: Step-By-Step Guide

Microsoft Corporation

Published: May 2010

Abstract

This paper provides step-by-step information, guiding you through the major scenarios for using the Microsoft® Application Compatibility Toolkit (ACT) 5.6.

This information applies for the following operating systems:

- Windows® 7
- Windows Vista®
- Windows Server 2008 R2
- Windows Server 2003
- Windows XP with Service Pack 2
- Microsoft Windows 2000

Microsoft®

Copyright Information

This document is provided “as-is”. Information and views expressed in this document, including URL and other Internet Web site references, may change without notice. You bear the risk of using it.

Some examples depicted herein are provided for illustration only and are fictitious. No real association or connection is intended or should be inferred.

This document does not provide you with any legal rights to any intellectual property in any Microsoft product. You may copy and use this document for your internal, reference purposes.

© 2010 Microsoft Corporation. All rights reserved.

Active Directory, Internet Explorer, Microsoft, Windows, Windows NT, Windows XP, Windows Vista, Windows 7, and Windows Server are trademarks of the Microsoft group of companies.

All other trademarks are property of their respective owners.

Contents

Microsoft ACT: Step-by-Step Guide	4
Overview	4
Prerequisites for Walkthroughs.....	4
ACT Walkthrough Exercises	4
Deploying a New Operating System.....	4
Phase 1: Collecting Your Inventory and Compatibility Data	5
Phase 2: Analyzing Your Compatibility Data.....	7
Prioritizing Your Data	7
Categorizing Your Data.....	7
Selecting Your Assessment Rating.....	8
Filtering Your Data	10
Viewing a Report.....	11
Adding and Resolving Issues and Solutions.....	11
Phase 3: Testing and Fixing Your Issues.....	12
Applying a Windows Update	12
Phase 1: Collecting Your Inventory and Compatibility Data	13
Phase 2: Analyzing Your Compatibility Data.....	14
Prioritizing Your Data	14
Categorizing Your Data.....	15
Selecting Your Severity.....	16
Filtering Your Data	17
Viewing a Report.....	17
Phase 3: Testing and Mitigating Issues by Using Compatibility Fixes	18
Testing and Mitigating User Account Control-Related Issues with the Standard User Analyzer and the Compatibility Administrator.....	18
Collecting the UAC-related issues.....	19
Reviewing the SUA Tool Results	20
Applying the Recommended Mitigations	20
Testing the Mitigations	20
Creating a Custom Compatibility Fix Database for Deployment	21
Removing the SUA Mitigations Database	22
Deploying the Contoso.sdb Database to Your Environment.....	22

Microsoft ACT: Step-by-Step Guide

Overview

The purpose of this white paper is to provide clear information about the core usage scenarios for Microsoft® Application Compatibility Toolkit (ACT) 5.6. While following the walkthroughs presented in this guide, you will create an inventory of currently installed applications, determine which applications might have compatibility issues, organize the data so that they make sense, and create the solutions to enable the problematic applications to run.

Prerequisites for Walkthroughs

To complete the walkthroughs described in this white paper, you must ensure that you:

- Are an Administrator on the computer.
- Have Internet access.
- Have an environment of client computers to which you can deploy the data-collection packages (DCPs), including providing the required configuration, permissions, and database roles for each user account.

Note

For specific configuration and permission information, see the "Microsoft® ACT: Configuration and Troubleshooting" white paper or view the "Supported Software and Hardware" topic in the ACT Help.

- Install any application, including Internet Explorer® 7 or Internet Explorer 8 (if you are using the Internet Explorer Compatibility Test Tool [IECTT]), for which you require compatibility data.
- Install and configure the ACT 5.6 based on the information in the "Microsoft ACT: Configuration and Troubleshooting" white paper.
- Plan your deployment strategy, including where and how to deploy the DCPs.

ACT Walkthrough Exercises

The following sections provide step-by-step instructions to walk you through each of the major ACT scenarios, which include deploying a new operating system or a service pack, applying a Windows® security update, and mitigating compatibility issues by using compatibility fixes.

Deploying a New Operating System

This walkthrough topic describes a scenario of an organization that is planning to deploy a new operating system into its environment, but first requires a more detailed assessment of the

potential compatibility issues. For this walkthrough, you must deploy the associated DCP to at least one of your client computers that is running one of the following operating systems:

- Windows 7
- Windows Vista® with Service Pack 1 or Service Pack 2
- Windows XP with Service Pack 2 or Service Pack 3
- Windows Server 2008 R2
- Windows Server 2003 with Service Pack 1 or Service Pack 2
- Microsoft Windows 2000 Server with Service Pack 4 and Update Rollup 1

Phase 1: Collecting Your Inventory and Compatibility Data

In this phase, you will create a new DCP that will collect your organization's inventory, which includes information about your computers, devices, installed applications, and associated compatibility issues.

To collect your software and hardware inventory

1. On the taskbar, click **Start**, point to **All Programs**, point to **Microsoft Application Compatibility Toolkit 5.6**, and then click **Application Compatibility Manager**.
2. On the **Collect** screen, click **File** from the toolbar, and then click **New**.
The **New <DCP_Name>** dialog box appears.
3. In the **Package Name** box, type **Inventory_Collection**.
4. In the **Evaluate compatibility when** area, click **Deploying a new Operating System or Service Pack**.
5. Click **Advanced**.
The **Advanced Settings** dialog box appears.
6. Clear the **User Account Control Compatibility Evaluator** and **Windows Compatibility Evaluators** check boxes, and then click **OK**.
The **Advanced Setting** dialog box closes.
7. In the **When to monitor application usage** area, do not change the default options, but change the **Duration** to **10 Minutes**.
8. In the **Output Location** box, do not change the default value, previously specified in the ACT Configuration Wizard.
9. On the **File** menu, click **Save and Create Data Collection Package**.
10. Save the compiled DCP to your desktop.
11. Determine which method you will use to deploy your DCP. For information about the various deployment options, see the "Deploying a Data Collection Package" topic in the ACT Help.
12. By using the method determined in the previous step, deploy the DCP to your specified client computers' desktops.



Note

We recommend that you collect your data from approximately 10,000 computers, if you have a large number of available client computers in your organization.

13. Double-click the packaged DCP from each identified client computer's desktop.
The DCP runs on the client computer.

▶ **To view and synchronize your data**

1. Click **Analyze** from the left-hand navigation pane of your client computers.
The **Analyze** screen appears.
2. Click **Send and Receive**.
The **Send and Receive Data** dialog box appears.
3. Click **Review the data before sending**.
The dialog box changes to show the applications that will send and will receive information from Microsoft during the synchronization process.



Note

You can disable specific applications from the synchronization process, so that you do not share the related issue data with Microsoft or the ACT Community. For more information, see the "Selecting Your Send and Receive Status" topic in the ACT Help.

4. Click **Send**.
Data synchronization occurs between your computer and the Microsoft Compatibility Exchange.
5. Return to the **Analyze** screen and review the updated issue data for your applications.

▶ **To collect your application compatibility data**

1. On the **Collect** screen, click **File** from the toolbar, and then click **New**.
The **New <DCP_Name>** dialog box appears.
2. In the **Package Name** box, type **OS_Deployment**.
3. In the **Evaluate compatibility when** area, click **Deploying a new Operating System or Service Pack**.
4. In the **Where to output collected data** area, in the **Output Location** box, do not change the default values.
5. On the **File** menu, click **Save and Create Data Collection Package**.
6. Save the compiled DCP to your desktop.
7. As you did previously, deploy your DCP and synchronize your data.

Phase 2: Analyzing Your Compatibility Data

In this phase, you will organize your data by using priorities, assessment ratings and categories and subcategories. After organizing your data, you will be able to filter your compatibility data, determine which applications might have compatibility issues, and view the information in customized reports.

Prioritizing Your Data

In this section, you will prioritize your application compatibility data, based on the importance of the application to your organization. For more information, see the "Prioritizing Your Data" topic in the ACT Help.

The available priority levels are:

- **Priority 1 - Business Critical.** The highest priority level. Business-critical items are so important to your organization that, unless you certify them, you will not deploy the updated operating system.
- **Priority 2 - Important.** The priority level for applications, Web sites, computers, devices, and updates that your organization regularly uses but can continue to function without. You can choose to deploy the updated operating system without requiring certification.
- **Priority 3 - Nice to Have.** The priority level for applications, Web sites, computers, devices, and updates that do not fall into the previous two categories but that you want to appear in your ACT compatibility reports. You will deploy the updated operating system regardless of certification.
- **Priority 4 - Unimportant.** The priority level for applications, Web sites, computers, devices, and updates that are irrelevant to your organization's daily functions. You can use this priority level to filter out the unimportant items from your reports.
- **Unspecified.** The default priority level, which is automatically assigned to all applications, Web sites, computers, devices, and updates. Your organization can use this priority level to denote applications that have not yet been reviewed for deployment.

To prioritize your applications

1. On the **Analyze** screen, click **Applications** from the **Windows 7 Reports** heading in the **Quick Reports** pane.
The **Windows 7 – Application Report** screen appears.
2. Click **Microsoft Application Compatibility Toolkit 5.6**, and then on the **Actions** menu, click **Set Priority**.
The **Set Priority** dialog box appears.
3. Click **Priority 1 – Business Critical**, and then click **OK**.

Categorizing Your Data

In this section, you will create categories and subcategories and assign them to an application. For more information, see the "Categorizing Your Data" topic in the ACT Help.

► To create a new category and a new subcategory

1. In the **Windows 7 - Application Report** screen, click **Microsoft Application Compatibility Toolkit 5.6**.
2. On the **Actions** menu, click **Assign Categories**.
The **Assign Categories** dialog box appears.
3. Click **Category List**.
The **Category List** dialog box appears.
4. In the **Categories** area, click **Add**, type **Location**, and then press ENTER.
5. In the **Subcategories** area, click **Add**, type **United States**, and then press ENTER.
6. In the **Subcategories** area, click **Add**, type **Europe**, and then press ENTER.
7. Click **OK** to close the **Category List** dialog box.
8. Click **OK** to close the **Assign Categories** dialog box.

► To assign a category and a subcategory

1. In the **Windows 7 - Application Report** screen, click **Microsoft Application Compatibility Toolkit 5.6**.
2. On the **Actions** menu, click **Assign Categories**.
The **Assign Categories** dialog box appears.
3. Select the **United States** check box, and then click **OK**.
The **Assign Categories** dialog box closes.



Note

Although **United States** is a subcategory, when you select the check box, it automatically selects the parent category. If you assign a category, you must assign one or more subcategories.









Selecting Your Assessment Rating

In this section, you will select your organization's assessment rating for an application, based on the 32-bit and 64-bit versions of the operating system. Your assessment rating enables you to specify which applications might be problematic while going through your organization's testing process.

Your application assessments originate from authoritative sources, such as Microsoft and the application vendor, your own testing, and the Application Compatibility Toolkit (ACT) Community, if you are a member. For more information, see the "Selecting Your Assessment Rating" topic in the ACT Help.

The following table describes the icons that appear in the **My Assessment** and the **Vendor Assessment** columns on the **Analyze** screen.

Microsoft ACT: Step-by-Step Guide

Icon	Description
	Denotes applications that work properly on a 32-bit operating system and function as expected.
	Denotes applications that work properly on a 64-bit operating system and function as expected.
	Denotes applications with issues that are minor or have known solutions on 32-bit operating systems.
	Denotes applications with minor issues or known solutions on 64-bit operating systems.
	Denotes applications with major issues, such as data loss or severely impaired functionality on 32-bit operating systems.
	Denotes applications with major issues, such as data loss or severely impaired functionality, on 64-bit operating systems.
	Denotes applications that do not have any application-assessment data for 32-bit operating systems. In this case, either the application does not match any information in the database or no assessment has been submitted.
	Denotes applications that do not have any application-assessment data for 64-bit operating systems. In this case, either the application does not match any information in the database or no assessment has been submitted.

To select your assessment rating

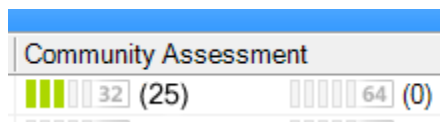
1. In the **Windows 7 - Application Report** screen, click **Microsoft Application Compatibility Toolkit 5.6**.
2. On the **Actions** menu, click **Set Assessment**.
The **Set Assessment** dialog box appears.
3. Click **Works** in both the **32-bit** and **64-bit** column, and then click **OK**.

ACT Community Assessments

The ACT community can rate the compatibility of an application. Ratings are displayed graphically (changing from red to yellow to green) in the **Community Assessment** column. To understand what the rating color means, you must first understand how the underlying community rating works. There are three available scores, based on the rating for an application.

- **Works.** If you vote that an application works, it is denoted as five green bars.
- **Works with minor issues or has solutions.** If you vote that an application has minor issues, it is denoted as three light green bars.
- **Does not work.** If you vote that an application does not work, it is denoted as a single red bar.

The ACT then takes your information and combines it with all of the information provided by the other ACT Community users and averages the ratings to show a color gradient from one to five bars.



Filtering Your Data

In this section, you will create a single filter to display your compatibility data based on your priority, category, subcategory, and assessment rating. After filtering your data, you can view the results as a customized report that is tailored to your organizational requirements. For more information, see the "Filtering Your Compatibility Data" topic in the ACT Help.

► To create a customized filter

1. In the **Windows 7 - Application Report** screen, click **Toggle Filter**.
2. In the **Field** list, click **Priority**.
The **Operator** field will automatically update with the **Equals** option, and the **Value** box will automatically update with the **Priority 1 – Business Critical** option.
3. Press the TAB key to create a new query row.
4. In the **And/Or** list, click **And**.
5. In the **Field** list, click **32-bit Internal Assessment**.
6. In the **Value** list, click **Works**.
7. Press the TAB key to create a new query row.
8. In the **And/Or** list, click **And**.
9. In the **Field** list, click **Categories (+)**.
The remaining filter criteria is completed and a linked row is automatically created.
10. In the linked row **Field** list, click **Category Name**.
The **Operator** field will automatically update with the **Equals** option and another linked

row is created.

11. In the **Value** box, select **Location**.
12. In the linked row **And/Or** list, click **And**.
13. In the **Field** list, click **Subcategory Name**.

The **Operator** field will automatically update with the **Equals** option.

14. In the **Value** box, select **United States**.
15. Right-click anywhere in the row, and then click **Execute**.

The filter sorts your data to display the **Microsoft Application Compatibility Toolkit 5.6** because it is the only application that fulfills all the filter criteria.

Viewing a Report

In this section, you will view the **<Operating_System> Application Report** screen and an associated **<Application_Name>** dialog box. The **<Operating_System> Application Report** screen enables you to view your data by individual operating system, such as Windows 7. The application details dialog box enables you to view more deeply detailed data, such as the assessment rating, known issues and solutions, application properties, or computer details.

► To view an application's details

1. On the **Analyze** screen, click **Applications** from the **Windows 7 Reports** heading in the **Quick Reports** pane.
The **Windows 7 – Application Report** screen appears.
2. Double-click **Microsoft Application Compatibility Toolkit 5.6**.
The **Microsoft Application Compatibility Toolkit 5.6** dialog box appears, showing the **Assessment** tab.
3. Click the **Issues**, **Application Properties**, **Computers**, and **Tags** tabs for more information about the application as it relates to that heading.

Adding and Resolving Issues and Solutions

In this section, you will add a new compatibility issue and a new solution, and then you will resolve the issue for your organization. For more information, see the "Creating and Editing Issues and Solutions" topic in the ACT Help.

► To add and to resolve a compatibility issue

1. In the **Microsoft Application Compatibility Toolkit 5.6** dialog box, click **Add Issue**.
The **Microsoft Application Compatibility Toolkit 5.6 – New Issue** dialog box appears.
2. In the **Title** box, type **Example_Issue**.
3. In the **Priority** list, click **Priority 3 – Nice to Fix**.
4. In the **Severity** list, click **Severity 3 – Minor functionality loss**.

5. In the **Symptom** list, click **Application has impaired functionality**.
6. In the **Cause** list, click **Application requires a deprecated component**.
7. In the **Affected Operating Systems** box, do not change the selected default value (**Windows 7**).
8. In the **Issue Description** box, type **This is the issue description text**.
9. On the **File** menu, click **Save**.
10. On the **Actions** menu in the **Microsoft Application Compatibility Toolkit 5.6 – Example_Issue** dialog box, click **Add Solution**.
The **Microsoft Application Compatibility Toolkit 5.6 – Add Solution** dialog box appears.
11. In the **Title** box, type **Example_Solution**.
12. In the **Solution Type** box, click **Application configuration change**.
13. In the **Solution Details** box, type **This is the solution details text**.
14. Click **Save**.
15. On the **Actions** menu in the **Microsoft Application Compatibility Toolkit 5.6 – Example_Issue** dialog box, click **Resolve**.
The issue is resolved. The **Resolved** icon appears in the **Status** column for the issue, on the **Issues** tab.

Phase 3: Testing and Fixing Your Issues

After you have collected and analyzed your data, you must test and mitigate (fix) your issues. This process can be accomplished by using the Standard User Analyzer (SUA) and the Compatibility Administrator, which are provided with the ACT and are located in the **Developer and Tester Tools** folder. For specific walkthrough instructions, see the "Phase 3: Mitigating Your Issues by Using Compatibility Fixes" section later in this white paper. For more detailed information about each tool, including information that is not included in this white paper, see the associated topics in the ACT Help.

Applying a Windows Update

This walkthrough describes a scenario of an organization that is planning to deploy a Windows® update into its environment, but first requires a more detailed assessment of the potential compatibility issues. For these exercises, you must deploy the associated DCP to at least one of your client computers that is running one of the following operating systems:

- Windows 7
- Windows Vista with Service Pack 1 (SP1) or Service Pack 2 (SP2)
- Windows XP with Service Pack 2 (SP2) or Service Pack 3 (SP3)
- Windows Server 2008 R2
- Windows Server 2003 with Service Pack 1 (SP1) or Service Pack 2 (SP2)

- Microsoft Windows 2000 with Service Pack 4 (SP4) and Update Rollup 1

Phase 1: Collecting Your Inventory and Compatibility Data

In this phase, you will create a new DCP that will collect your organization's inventory, which includes information about your computers, devices, installed applications, and associated compatibility issues.

► To collect your software and hardware inventory

1. On the taskbar, click **Start**, point to **All Programs**, point to **Microsoft Application Compatibility Toolkit 5.6**, and then click **Application Compatibility Manager**.
2. On the **Collect** screen, click **File** from the toolbar, and then click **New**.
The **New <DCP_Name>** dialog box appears.
3. In the **Package Name** box, type **Inventory_Collection**.
4. In the **Evaluate compatibility when** area, click **Applying Windows Updates**.
5. Click **Advanced**.
The **Advanced Settings** dialog box appears.
6. Clear the **Update Compatibility Evaluator** check box, and then click **OK**.
The **Advanced Setting** dialog box closes.
7. In the **When to monitor application usage** area, do not change the default options, but change the **Duration** to **10 Minutes**.
8. In the **Output Location** box, do not change the default value, previously specified in the ACT Configuration Wizard.
9. On the **File** menu, click **Save and Create Data Collection Package**.
10. Save the compiled DCP to your desktop.
11. Determine which method you will use to deploy your DCP. For information about the various deployment options, see the "Deploying a Data Collection Package" topic in the ACT Help.
12. By using the method determined in the previous step, deploy the DCP to your specified client computers' desktops.



Important

We recommend that you collect your data from approximately 10,000 computers if you have a large number of available client computers in your organization.

13. Double-click the packaged DCP from each identified client computer's desktop.
The DCP runs on the client computer.

► To view and synchronize your data

1. On the left-hand navigation pane of your client computer, click **Analyze**.

The **Analyze** screen appears.

2. Click **Send and Receive**.

The **Send and Receive Data** dialog box appears.

3. Click **Review the data before sending**.

The dialog box changes to show the applications that will send and will receive information from Microsoft during the synchronization process.



Note

You can disable specific applications from the synchronization process so that you do not share the related issue data with Microsoft or your assessment ratings with the ACT Community. For more information, see the "Selecting Your Send and Receive Status" topic in the ACT Help.

4. Click **Send**.

Data synchronization occurs between your computer and the Microsoft Compatibility Exchange.

5. Return to the **Analyze** screen and review the updated issue data for your applications.

► **To collect your application compatibility data**

1. On the **Collect** screen, click **File** from the toolbar, and then click **New**.

The **New <DCP_Name>** dialog box appears.

2. In the **Package Name** box, type **OS_Deployment**.
3. In the **Evaluate compatibility when** area, click **Applying Windows Updates**.
4. In the **Output Location** box, do not change the default values, previously specified in the **ACT Configuration Wizard**.
5. On the **File** menu, click **Save and Create Data Collection Package**.
6. Save the compiled DCP to your desktop.
7. As you did previously, deploy your DCP and synchronize your data.

Phase 2: Analyzing Your Compatibility Data

In this phase, you will organize your application data by using priorities, categories and subcategories, and you will organize your Windows updates by using severity ratings. After organizing your data, you will be able to filter your compatibility data, to determine which applications or Windows updates might have compatibility issues, and to view the information in customized reports.

Prioritizing Your Data

In this section, you will prioritize your application data, based on the importance of the application or update to your organization. For more information, see the "Prioritizing Your Data" topic in the ACT Help.

The available priority levels are:

- **Priority 1 - Business Critical.** The highest priority level. Business-critical items are so important to your organization that, unless you certify them, you will not deploy the updated operating system.
- **Priority 2 - Important.** The priority level for applications, Web sites, computers, devices, and updates that your organization regularly uses but can continue to function without. You can choose to deploy the updated operating system without requiring certification.
- **Priority 3 - Nice to Have.** The priority level for applications, Web sites, computers, devices, and updates that do not fall into the previous two categories but that you want to appear in your ACT compatibility reports. You will deploy the updated operating system regardless of certification.
- **Priority 4 - Unimportant.** The priority level for applications, Web sites, computers, devices, and updates that are basically irrelevant to your organization's daily functions. You can use this priority level to filter out the unimportant items from your reports.
- **Unspecified.** The default priority level, which is automatically assigned to all applications, Web sites, computers, devices, and updates. You can use this priority level to denote applications that have not yet been reviewed for deployment.

► To prioritize your applications

1. On the **Analyze** screen, click **Applications** from the **Update Impact Reports** heading in the **Quick Reports** pane.
The **Update Impact Reports – Applications** screen appears.
2. Click **Microsoft Application Compatibility Toolkit Data Collector 5.6**, and then click the **Set Priority** button.
The **Set Priority** dialog box appears.
3. Click **Priority 2 – Important**, and then click **OK**.

Categorizing Your Data

In this section, you will create categories and subcategories and assign them to an application. For more information, see the "Categorizing Your Data" topic in the ACT Help.

► To create a new category and a new subcategory

1. In the **Update Impact Reports - Applications** screen, click **Microsoft Application Compatibility Toolkit Data Collector 5.6**.
2. On the **Actions** menu, click **Assign Categories**.
The **Assign Categories** dialog box appears.
3. Click **Category List**.
The **Category List** dialog box appears.
4. In the **Categories** area, click **Add**, type **Department**, and then press ENTER.

5. In the **Subcategories** area, click **Add**, type **Sales**, and then press ENTER.
6. In the **Subcategories** area, click **Add**, type **Marketing**, and then press ENTER.
7. Click **OK** to close the **Category List** dialog box.
8. Click **OK** to close the **Assign Categories** dialog box.

► **To assign a category and a subcategory**

1. In the **Update Impact Reports - Applications** screen, click **Microsoft Application Compatibility Toolkit Data Collector 5.6**.
2. On the **Actions** menu, click **Assign Categories**.
The **Assign Categories** dialog box appears.
3. Select the **Sales** check box, and then click **OK**.
The **Assign Categories** dialog box closes.



Note

Although **Sales** is a subcategory, when you select the check box, it automatically selects the parent category. If you assign a category, you must assign one or more subcategories.

Selecting Your Severity

In this section, you will select your organization's severity rating for the Windows update. You can use the severity rating to specify which updates might be problematic, and how severe that problem might be for your organization. For more information, see the "Selecting Your Severity Assessment" topic in the ACT Help.

► **To create a new severity rating**

1. On the **Analyze** screen, click **Updates** from the **Update Impact Reports** heading in the **Quick Reports** pane.
The **Updates** screen appears.
2. On the **Actions** menu, click **Set Severity**.
The **Set Severity** dialog box appears.
3. Click **Severity List**.
The **Severity List** dialog box appears.
4. Click **Add**, type **Unimportant**, and then press the ENTER key.
5. Click **OK** to close the **Severity List** dialog box.
6. Click **OK** to close the **Set Severity** dialog box.

► **To select a severity rating**

1. On the **Updates** screen, click the Windows update that is listed first in the right pane, and

then click the **Set Severity** button.

The **Set Severity** dialog box appears.

2. Click **Unimportant**, and then click **OK**.

Filtering Your Data

In this section, you will create a single filter to display your compatibility data based on your priority, category, and subcategory selections. After filtering your data, you can view the results as a customized report tailored to your organizational requirements. For more information, see the "Filtering Your Compatibility Data" topic in the ACT Help.

To create a customized filter

1. On the **Analyze** screen, click **Applications** from the **Update Impact Reports** heading in the **Quick Reports** pane.

The **Update Impact Reports – Applications** screen appears.

2. In the **Update Impact Reports – Applications** screen, click **Toggle Filter**.
3. In the **Field** list, click **Priority**.

The **Operator** field will automatically update with the **Equals** option.

4. In the **Value** box, select **Priority 2 - Important**.
5. Press the TAB key to create a new query row.
6. In the **And/Or** list, click **And**.
7. In the **Field** list, click **Categories (+)**.

The remaining filter criteria is completed and a linked row is automatically created.

8. In the linked row **Field** list, click **Category Name**.

The **Operator** field will automatically update with the **Equals** option and another linked row is created.

9. In the **Value** box, select **Department**.
10. In the linked row **And/Or** list, click **And**.
11. In the **Field** list, click **Subcategory Name**.

The **Operator** field will automatically update with the **Equals** option.

12. In the **Value** box, select **Sales**.
13. Right-click anywhere in the row, and then click **Execute**.

The filter sorts your data to display the **Microsoft Application Compatibility Toolkit Data Collector 5.6** because it is the only application that fulfills all the filter criteria.

Viewing a Report

In this section, you will view the **Update Impact Reports - Applications** report, the associated details dialog box, the **Update Impact Report - Updates** report, and its associated security update dialog box.

► **To view an Update Impact Reports – Applications report**

1. On the **Analyze** screen, click **Applications** from the **Update Impact Reports** heading in the **Quick Reports** pane.

The **Update Impact Reports - Applications** screen appears.

2. Double-click **Microsoft Application Compatibility Toolkit Data Collector 5.6**.

The **Microsoft Application Compatibility Toolkit Data Collector 5.6** dialog box appears, displaying the compatibility details for the application.

3. Click the **Intersecting Updates**, **Application Properties**, **Computers**, and the **Labels** tab for more information about the application as it relates to that heading.

► **To view the Update Impact Reports - Updates reports**

1. Click **Updates** from the **Update Impact Reports** heading in the **Quick Reports** pane.

The **Updates** screen appears.

2. Double-click the Windows update that is listed first in the right pane.

A security update dialog box appears, displaying the details for the update.

3. Click the **Intersecting Applications**, **Update Properties**, and **Computers** tab for more information about the update as it relates to that heading.

Phase 3: Testing and Mitigating Issues by Using Compatibility Fixes

After you have collected and analyzed issues in the Application Compatibility Manager, use the Standard User Analyzer (SUA) and the Compatibility Administrator to test and mitigate issues. These tools are provided with the ACT and are located in the Developer and Tester Tools folder. For specific walkthrough instructions and environment configuration information, see the “Microsoft ACT: Phase3 - Mitigating Issues by Using Compatibility Fixes” white paper, available for download from the Related Resources section of the [Microsoft Application Compatibility Toolkit 5.6 Download](#) Web page. For more detailed information about each tool, including information that is not included in this white paper, see the associated topics in the ACT Help.

Testing and Mitigating User Account Control-Related Issues with the Standard User Analyzer and the Compatibility Administrator

This walkthrough describes the scenario of an organization that wants to use the Standard User Analyzer (SUA) to test its applications to detect potential compatibility issues related to User Account Control (UAC) and then use the compatibility fixes available in the Compatibility Administrator to fix the known issues. UAC, formerly known as Limited User Account (LUA), requires that all users (including members of the Administrator group) run as Standard Users until the application is deliberately elevated by using the security prompt dialog box. However, applications that require access and privileges for locations that are not available to a Standard User cannot run properly with the Standard User role.



Note

This walkthrough uses the SUA tool because it provides additional functionality. However, you can also use the SUA Wizard, which is in the same location as the SUA tool. The wizard also evaluates the issues. However, it does not offer any of the detailed analysis of the SUA tool, and you cannot use the wizard to disable virtualization or to elevate your privileges.

Collecting the UAC-related issues

First, use the SUA tool to test an application and to locate the UAC-related issues.

► To collect UAC-related issues by using SUA

1. Click **Start**, point to **All Programs**, point to **Microsoft Application Compatibility Toolkit 5.6**, point to **Developer and Tester Tools**, and then click **Standard User Analyzer**.

The SUA tool starts.

2. In the **Target Application** field, browse to the **\Program Files\Microsoft Application Compatibility Toolkit\Compatibility Administrator (32-bit)\Demo Application\StockViewer** directory, and then double-click **StockViewer.exe**.

3. Clear the **Elevate** check box, and then click **Launch**.

The StockViewer tool attempts to start and the **Permission denied** dialog box appears.

4. Click **OK**.

The StockViewer application starts, despite the warning.

5. On the toolbar, click the **Trends** button.

An error message appears, stating that the application cannot create the object.

6. Click **OK** to close the error message.

7. On the **Tools** menu, click **Options**.

An error message appears, stating that there was an unhandled exception in the application.

8. Click **Continue** to close the error message and to continue testing the application.

9. On the **Help** menu, click **Check for Updates**.

Another error message appears, stating that there was an unhandled exception in the application.

10. Click **Continue** to close the error message and to continue testing the application.

11. Close the StockViewer application.

SUA automatically collects and shows the data that was found during the application run time.

Reviewing the SUA Tool Results

After collecting UAC-related issues from the StockViewer tool, review the information in the SUA tool.

▶ To review the SUA tool results

1. In the SUA tool, click the **Registry** tab to review the registry issues.
2. Click the **Token** tab to review the issue that occurred when checking the token.
3. Click the **Name Space** tab to review the issues that occurred with the global name space.
4. Click the **Other Objects** tab to review the UAC-related mapping issue that occurred.
5. Click the **Process** tab to review the issues that occurred while launching a process.

Applying the Recommended Mitigations

After reviewing the UAC-related information from the various tabs of the SUA tool, you can review and apply the recommended mitigations.

▶ To review and apply the recommended mitigations

1. In the SUA tool, on the **Mitigation** menu, click **Apply Mitigations**.
The **Mitigate AppCompat Issues** dialog box appears.
2. Review the recommended compatibility fixes. For more detailed information about each compatibility fix, see **Windows Vista and Newer Operating Systems** or the **Windows XP and Earlier** topics.
3. Click **Apply**.
The SUA tool generates a custom compatibility fix database and automatically applies it to your local computer, so that you can test the fixes to see if they worked.

Testing the Mitigations

After the SUA tool applies the custom compatibility fix database to your computer, you must test the StockViewer application to see if all of your issues are fixed.

▶ To test the recommended mitigations

1. Browse to the **\Program Files\Microsoft Application Compatibility Toolkit\Compatibility Administrator (32-bit)\Demo Application\StockViewer** directory, and then double-click **StockViewer.exe**.
The StockViewer application starts without causing the **Permission denied** dialog box to appear.
2. On the toolbar, click the **Trends** button.
The **Trends** screen appears.

3. On the **Tools** menu, click **Options**.
The **Options** page appears.
4. On the **Help** menu, click **Check for Updates**.
The StockViewer tool successfully checks for updates.

Creating a Custom Compatibility Fix Database for Deployment

Now that you know the recommended compatibility fixes work, you can create your own custom compatibility fix database to deploy across your organization.

To create a custom compatibility database

1. Click **Start**, point to **All Programs**, point to **Microsoft Application Compatibility Toolkit 5.6**, point to **Developer and Tester Tools**, and then click **Compatibility Administrator**.
The Compatibility Administrator appears.
2. Select the **New Database (1) [Untitled_1]** custom database.
3. On the toolbar, click the **Fix** button.
The **Create New Application Fix** wizard appears, showing the **Program information** page.
4. In the **Name of the program to be fixed** field, type **StockViewer**.
5. In the **Name of the vendor for this program** field, type **Contoso**.
6. In the **Program file location** field, type **C:\Program Files\Microsoft Application Compatibility Toolkit\Compatibility Administrator (32-bit)\Demo Application\StockViewer\StockViewer.exe**, and then click **Next**.
The **Create new Application Fix** wizard shows the available Compatibility Modes.
7. Leave the fields blank, and then click **Next**.
The **Create new Application Fix** wizard shows the available Compatibility Fixes.
8. Check the boxes for the **ForceAdminAccess**, **LocalMappedObject**, **VirtualizeHKCRLite**, and **ElevateCreateProcess** compatibility fixes, and then click **Next**.
The **Create new Application Fix** wizard shows the available matching information.
9. Accept the default matching information, and then click **Finish**.
The custom database is created in the **Custom Databases** node.
10. Select the new custom database.
11. On the toolbar, click **Save**
12. In the **File Name** field, type **Contoso** and then save the file, **contoso.sdb**, to your desktop.

Removing the SUA Mitigations Database

Before you deploy your custom compatibility fix database, remove the original database created by the SUA tool and then install and test the Contoso.sdb database again to ensure that the compatibility fixes were successfully applied to your local computer.

► To remove the SUA Mitigations database

- In the Compatibility Administrator, expand the **Installed Databases** node, right-click the SUA Mitigations database (the only installed database that includes the StockViewer application), and then click **Uninstall**.

The SUA Mitigations database uninstalls from your local computer.

► To install the custom database

1. In the **Custom Databases** node, right-click the Contoso.sdb database, and then click **Install**.
2. Verify that the Contoso database appears in the **Installed Databases** node.
3. Repeat the steps listed in the Testing the Mitigations section of this topic to ensure that the fixes have been successfully applied to the computer.

Deploying the Contoso.sdb Database to Your Environment

Finally, you can deploy the Contoso.sdb database into your environment so that the StockViewer application functions properly on all of your computers. For the purpose of this exercise, we simulate placing the Contoso.sdb database on a network share, and then we create a script to enable a management tool, such as Microsoft System Center Configuration Manager, to install the database for later deployment to your environment.

► To create the network share location

1. Create a new folder on your desktop, named **SDBShare**.
2. Right-click the SDBShare folder, and then click **Properties**.
The **Properties** dialog box appears.
3. Click the **Sharing** tab, and then click **Advanced Sharing**.
4. Select the **Share this folder** check box, accept the default values, and then click **OK**.
5. Close the **Properties** dialog box.
6. Drag the Contoso.sdb database file, previously created and stored on your desktop, into the SDBShare folder.

The compatibility fix database is now available for installation by remote computers.

► To create the deployment script

1. To retrieve your computer name, open a Command Prompt window and type `net config`

workstation.

2. Click **Start**, point to **All Programs**, click **Accessories**, and then click **Notepad**.
The Notepad tool appears.
3. Type **sdbinst "\\<your_computer_name>\SDBShare\Contoso.sdb" -q**, and then save the file to your desktop as SDBInstScript.cmd.
4. Click **Start**, point to **All Programs**, click **Accessories**, right-click **Command Prompt**, and then click **Run as Administrator**.
A Command Prompt window appears with Administrator permissions.
5. Type **C:\users\<your_profile_name>\desktop\sdbinstscript.cmd**, and then press **ENTER**.

The Contoso.sdb database file is installed to the local computer. Run this script on each computer in your environment to ensure that the applications run properly.