Freescale Semiconductor
Application Note

How to Set parameters of User Account Control for Installation of CodeWarrior 2.x on Microsoft Windows 7 Operating System

1. Introduction

This application note describes to the steps to install CodeWarrior 2.x version product on Microsoft Windows 7 operating system. The security mechanism of Microsoft Windows 7 differs in some respects from Microsoft Windows 2000/XP operating system. The installation process of the CodeWarrior product on Microsoft Windows 7 has therefore its own specifics characteristics and conditions. Administrator rights are required to install the CodeWarrior product on Microsoft Windows 7system, since the installer copies files into the System folder. The CodeWarrior product can run without granting admin privileges of a user after the correct installation finished.

2. Problem Description

You may encounter error or warning messages during the installation process of the CodeWarrior 2.x product on Microsoft Windows 7. These messages appear as the installation of program makes changes to the system settings. These messages stop you from launching programs that were working fine on Microsoft Windows 2000/XP/". This is due to the User Account Control is a feature of Microsoft Windows 7. The User Account Control feature in Microsoft Windows is designed to prevent unauthorized changes to the

Contents

computer.

By default, administrator account in modern versions of Microsoft Windows operating system does not have full access to modify the system settings and install programs. A message box prompts you to ensure your action if you try to install a program or change critical settings. This secure desktop is designed to prevent a program from automatically approving itself. There is implemented User Account Control mechanism in Microsoft Windows 7 operating system.

The following steps explain how to install the CodeWarrior 2.x product on Microsoft Windows 7 operating system.

# 3. Installation the CodeWarrior product

The installation user has to have granting admin privileges to start the installation of CodeWarrior 2.x version of development tool. The installer of the CodeWarrior product strictly needs a granted admin privileges of installing user.

3.1. Starting the installation process

1. Start **Installation wizard** and run the installation process of CodeWarrior 2.x product.

   In case the User Account Control feature is activated on the Microsoft Window7 operating system the system will display the warning message as shown in Figure 1.
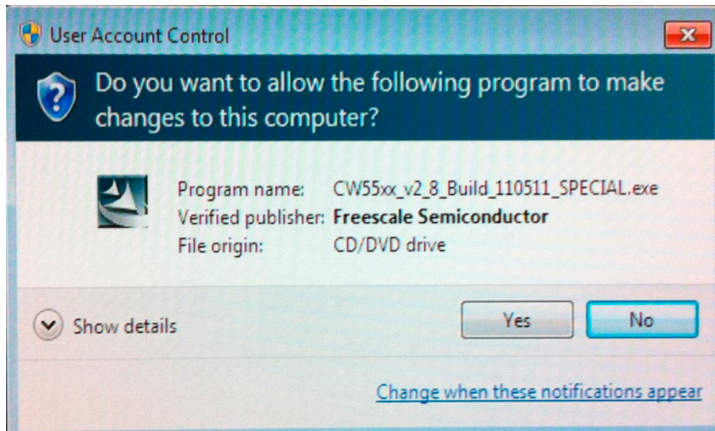
Figure 1. User Account Control Warning Message
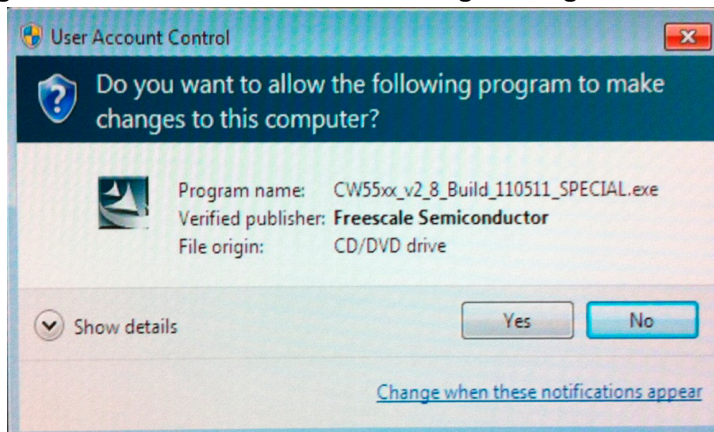
2. Click **the Show details** button on the User Account Control dialog box.

   The link **Show information about publisher's certificate** will appear as shown in Figure 2.

Error! No text of specified style in document. **Application Note**

2   Freescale Semiconductor
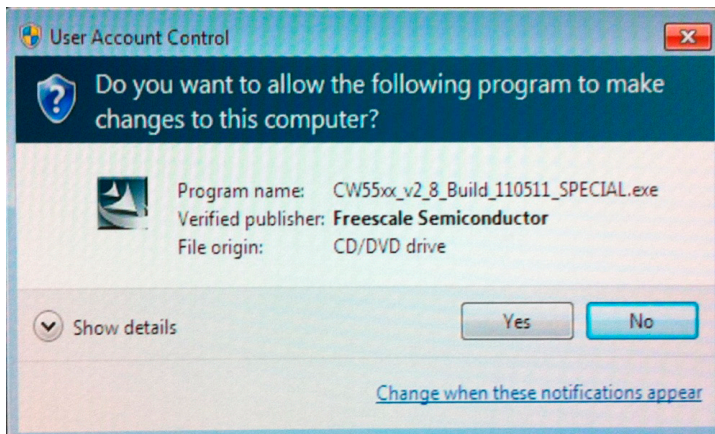
Figure 2. Show Publisher Information

3. Click on the link with current certificate in the message dialog box.

   A dialog box with information about the current used certificate appears as shown in Figure 3.

Figure 3. E-certificate dialog box

4. Check the **validity** and **accuracy** of the current presented certificate parameters.
5. Click the **OK** button to start the installation process of the CodeWarrior development environment on Microsoft Windows 7 operating system.

NOTE: If you do not allow the installer to make changes to the computer the installation process of CodeWarrior will be canceled. If installation you enable the installer to make changes to the computer the installation process of CodeWarrior tool will continue..

## 3.1.1. Checking the Parameters of Certificate

You can check the parameters of application certificate and certification authority in the certificate

Error! No text of specified style in document. **Application Note**

Freescale Semiconductor   3

information dialog box of the operating system. The certificate is important for security of the operating system. It checks the current application comes from trusted source. You need to have a valid certificate to ensure a complete installation of the CodeWarrior development environment presented in the operating system. To check the certificate parameters, perform the following steps.

1. Select the **General** tab.

2. Check values of **Valid from** and **Valid to** parameters.

3. Select the **Details** tab.

4. Check values of the parameters.

5. Select the **Certification Path** tab.

6. Check values of the parameters.

7. Click the **OK** button to close the certification parameters window.

Figure 4. The certificate information system window
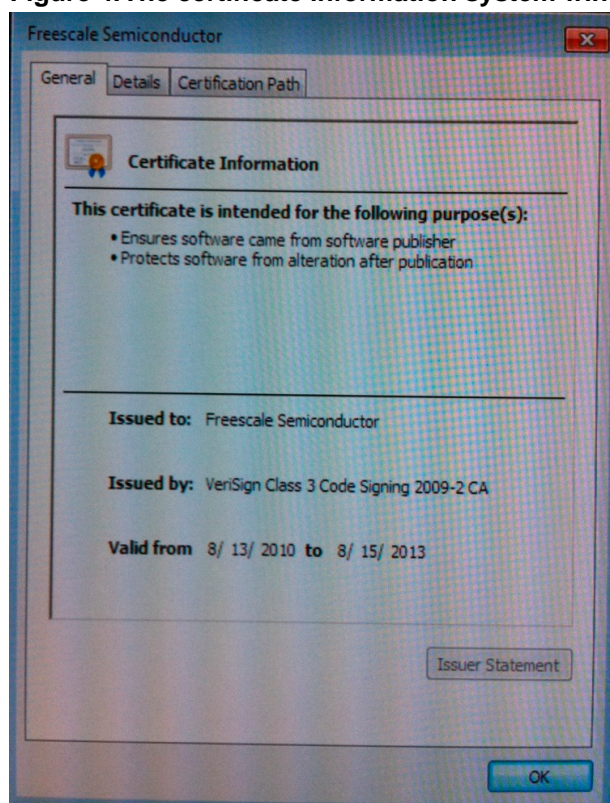
3.2. Setting the User Account Control Parameters

To set the User Account Control parameters, perform the following steps.

1. Select **START > Control Panel > User Accounts > User Account control settings** item from the Start menu.

2. The **User Account control** system window is appears, as shown in Figure 5.

Error! No text of specified style in document. **Application Note**

4   Freescale Semiconductor

3. Set the required level of the system notification see notification types in Table 1.

4. Click **OK** button to confirm the done changes.

Figure 5. **User Account Control Settings Window**
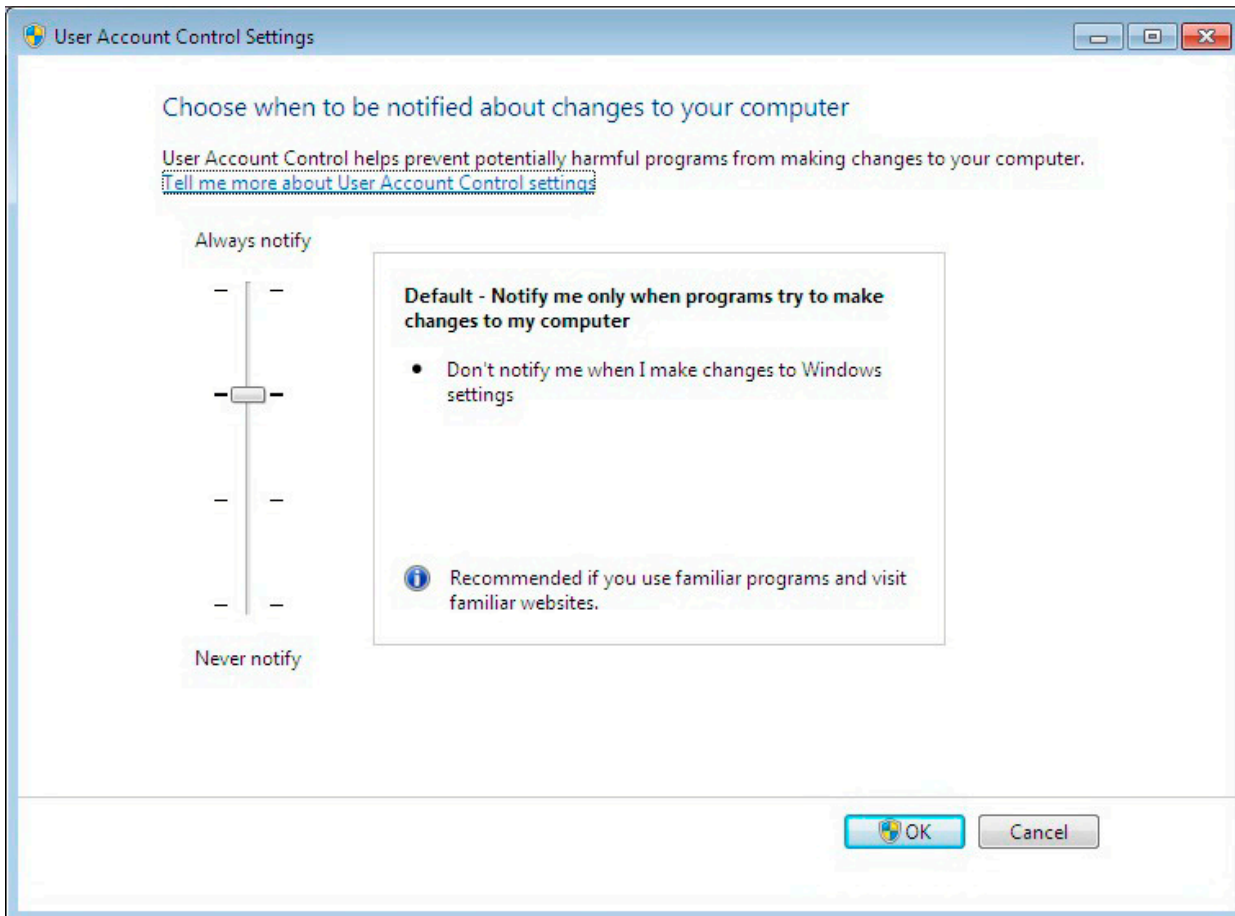
There is possible to control how often the User Account Control system will notify you about changes made during the CodeWarrior product installation process by adjusting the settings.

The default User Account Control setting will notify you when the installer of CodeWarrior product tries to make changes to the computer.

If you activate the **Never Notify** option, no notification message box will appear during the installation of the CodeWarrior product. This option causes a reduction of Microsoft Windows 7 operation system security. If you activate the **Always Notify** option, notification message box will always appear during the installation of the CodeWarrior product.

4. User Account Control settings

User Account Control is a security component that enables users to perform common tasks as non-administrators and as administrators without having to switch users, log off, or use Run As. User accounts that are members of the local Administrators group run most applications as a standard user. The primary

Error! No text of specified style in document. **Application Note**

Freescale Semiconductor   5

difference between a standard user and an administrator is the level of access that the user has over core, protected areas of the computer. Administrators can change the system state, turn off the firewall, configure security policies, install a service or a driver that affects every user on the computer, and install software for the entire computer. Standard users cannot perform these tasks, and they can only install per-user software. User Account Control notifies user before changes are made to a computer that requires administrator-level permission. The default User Account Control setting notifies user when programs try to make changes to the computer. There is possible to control how often user is notified by User Account Control system by adjusting the settings. If user has administrator privileges on the computer it can also fine-tune notification settings of User Account Control in Control Panel. Following is the description of User Account Control settings and the potential impact of each setting to the security of Microsoft Windows7 operating system in Table 1.

Table 1.   Description of User Account Control Settings and Security Parameters

Setting	Description	Security Impact
Always notify	The user will be notified before programs make changes to the computer or to Windows settings that require the permissions of an administrator. When the user is notified, the desktop will be dimmed and user must either approve or deny the request in the UAC dialog box before do anything else on the computer. The dimming of desktop is the secure desktop because other programs can't run while it's dimmed.	This is the most secure setting. When user is notified, user should carefully read the contents of each dialog box before allowing changes to be made to the computer.
Notify me only when programs try to make changes to my computer	The user will be notified before programs make changes to the computer that requires the permissions of an administrator. The user will not be notified if user tries to make changes to Windows settings that require the permissions of an administrator. The user will be notified if a program outside of Windows tries to make changes to a Windows setting.	It's usually safe to allow changes to be made to Windows settings without user being notified. However, certain programs that come with Windows can have commands or data passed to them, and malicious software can take advantage of this by using these programs to install files or change settings on the computer. User should always be careful about which programs user allows running on the computer.
Notify me only when programs try to make changes to my computer (do not dim my desktop)	The user will be notified before programs make changes to the computer that requires the permissions of an administrator. The user will not be notified if user tries to make changes to Windows settings that require the permissions of an administrator. The user will be notified if a program outside of Windows tries to make changes to a Windows setting.	This setting is the same as "Notify only when programs try to make changes to my computer," but user are not notified on the secure desktop. Because the UAC dialog box isn't on the secure desktop with this setting, other programs might be able to interfere with the dialog's visual appearance. This is a small security risk if user already has a malicious program running on the computer.
Never notify	User will not be notified before any changes are made to the computer. If user is logged on as an administrator, programs can make changes to the computer without user knowing about it. If user is logged on as a standard user, any changes that require the permissions of an	This is the least secure setting. When user set UAC to never notify, user open up the computer to potential security risks. If user set UAC to never notify, user should be careful about which programs user run, because they will have the same access to the computer as user do. This includes reading

Error! No text of specified style in document. **Application Note**

6   Freescale Semiconductor

Setting	Description	Security Impact
	administrator will automatically be denied. If user selects this setting, user will need to restart the computer to complete the process of turning off UAC. Once UAC is off, people that log on as administrator will always have the permissions of an administrator.	and making changes to protected system areas, user's personal data, saved files, and anything else stored on the computer. Programs will also be able to communicate and transfer information to and from anything the computer connects with, including the Internet.

5. Turn User Account Control on/off

User Account Control mechanism can help the user to prevent unauthorized changes to the computer. It works by prompting the user for permission when a task requires administrative rights, such as installing software or changing settings that affect other users. We don't recommend turning User Account Control off. If you do turn it off, you should turn it back on as soon as possible.

1. Open **User Accounts** system window by clicking the **Start** button on main system panel.

2. Select **Control Panel > User Accounts and Family Safety > User Accounts**.

3. Click Turn User Account Control **on** or **off**.
   If you are prompted for an administrator password or confirmation, type the password or provide confirmation.

4. Select the **Use User Account Control** check box to User Account Control turn on or clear the check box to User Account Control turn off and then click **OK** button.
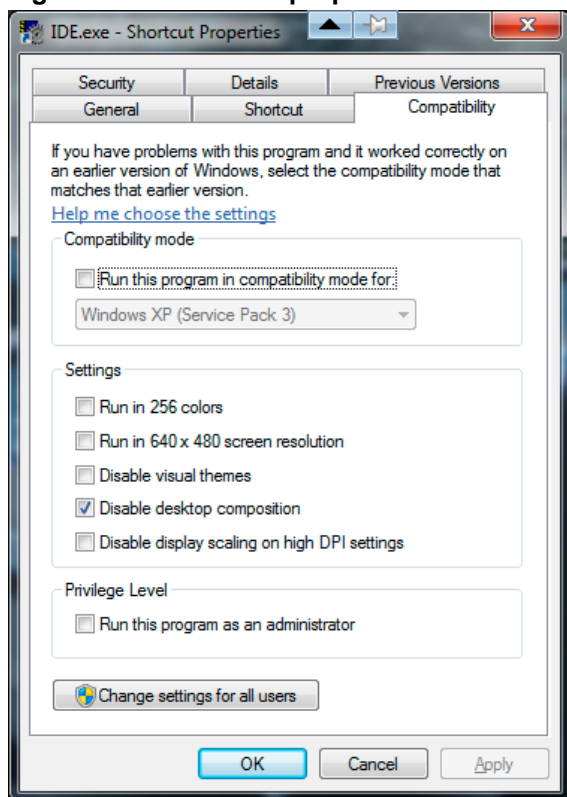
6. Running CodeWarrior 2.x on Microsoft Windows 7

The CodeWarrior 2.x product will run on Windows 7 operating system. There may by a variety of spurious crashes when any of the IDE windows of CodeWarrior is resized or moved. The most reliable way to correct this appears to be letting the operating system automatically turn off the Windows 7 special effects while CodeWarrior is running. There has to be done the following steps.

1. Right-click **CodeWarrior IDE** shortcut icon in Windows 7 operating system start menu or right-click IDE.exe icon at "C:\Program Files\Metrowerks\CodeWarrior\Bin" and select **Properties** item from the activated popup menu.
2. Select **Compatibility** card.
3. Check **Disable desktop composition** box on the card.
4. Click **OK** button to confirm the changes.

When you run CodeWarrior IDE then the operating system will turn off the Aero effects and momentarily display the notice below, as shown in Figure 4. When user exit CodeWarrior tool the Windows operating system will restore the standard display effects.

Error! No text of specified style in document. **Application Note**

Freescale Semiconductor 7

Figure 6. The shortcut properties window of CodeWarrior IDE

7. User Account Control Benefits

The User account control mechanism helps to prevent the potentially harm full programs from making changes to the computer. It provides the following benefits:

- It reduces the number of programs that run with elevated privileges and help to prevent users from accidentally changing their system settings.

- It allows users to be more productive when running as Standard users by removing unnecessary restrictions.

- It helps prevent unwanted system-wide changes in a way that is predictable and requires minimal effort.

- It gives Standard users the ability to ask administrators to give them permission to perform administrative tasks within their current session.

- UAC enables better parental control over system-wide changes and including what software is installed.

Error! No text of specified style in document. **Application Note**

8   Freescale Semiconductor

How to Reach Us:

Home Page:
www.freescale.com

E-mail:
support@freescale.com

USA/Europe or Locations Not Listed:
Freescale Semiconductor
Technical Information Center, CH370
1300 N. Alma School Road
Chandler, Arizona 85224
+1-800-521-6274 or +1-480-768-2130
support@freescale.com

Europe, Middle East, and Africa:
Freescale Halbleiter Deutschland GmbH
Technical Information Center
Schatzbogen 7
81829 Muenchen, Germany
+44 1296 380 456 (English)
+46 8 52200080 (English)
+49 89 92103 559 (German)
+33 1 69 35 48 48 (French)
support@freescale.com

Japan:
Freescale Semiconductor Japan Ltd.
Headquarters
ARCO Tower 15F
1-8-1, Shimo-Meguro, Meguro-ku,
Tokyo 153-0064, Japan
0120 191014 or +81 3 5437 9125
support.japan@freescale.com

Asia/Pacific:
Freescale Semiconductor Hong Kong Ltd.
Technical Information Center
2 Dai King Street
Tai Po Industrial Estate
Tai Po, N.T., Hong Kong
+800 2666 8080
support.asia@freescale.com

Document Number: AN4679

28 February 2013

Information in this document is provided solely to enable system and software implementers to use Freescale Semiconductor products. There are no express or implied copyright licenses granted hereunder to design or fabricate any integrated circuits or integrated circuits based on the information in this document.

Freescale Semiconductor reserves the right to make changes without further notice to any products herein. Freescale Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Freescale Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters that may be provided in Freescale Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals", must be validated for each customer application by customer's technical experts. Freescale Semiconductor does not convey any license under its patent rights nor the rights of others. Freescale Semiconductor products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Freescale Semiconductor product could create a situation where personal injury or death may occur. Should Buyer purchase or use Freescale Semiconductor products for any such unintended or unauthorized application, Buyer shall indemnify and hold Freescale Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Freescale Semiconductor was negligent regarding the design or manufacture of the part.

Freescale, the Freescale logo, CodeWarrior and ColdFire are trademarks of Freescale Semiconductor, Inc., Reg. U.S. Pat. & Tm. Off. Flexis and Processor Expert are trademarks of Freescale Semiconductor, Inc. All other product or service names are the property of their respective owners

© Freescale Semiconductor, Inc. 2009-2010. All rights reserved.