

**OnRAMP Design Suite
Release R104.0
Release and Installation Notes**

**Revision Date: April 26, 2012
Document ID: 6510020377**

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1 Introduction

1.1 About the OnRAMP Design Suite

The OnRAMP Design Suite is a development process and software tool for the generation of models and optimal control algorithms for a wide range of engine applications.

1.2 About this Document

This document provides an overview of the OnRAMP Design Suite R104 software release, including contents, installation/uninstallation instructions, prerequisites, and technical support information.

This document uses the terms *OnRAMP Design Suite* and *OnRAMP* interchangeably.

1.3 Technical Assistance

For technical assistance, please contact OnRAMP Support by one of the following methods:

Email: OnRAMP.Support@honeywell.com

Phone: 1-800-391-7795 (toll free in North America)

1-778-300-1513 (worldwide)

Technical assistance contact information is also available from **About OnRAMP Design Suite** under the Help menu within the application.

The OnRAMP Design Suite includes a Help file that can be accessed through the Start menu under **Programs → OnRAMP** or from the Help menu within the application.

2 Contents of Release

The OnRAMP Design Suite R104 release includes the following item:

Part Description	Part Number
Installation Media	6543210061 The installation media includes the Release and Installation Notes (PN 6510020377) on the root of the CD.

3 Getting Started

To get started with installing the OnRAMP Design Suite, you need the installation media (see Section 2). The instructions for installing the OnRAMP Design Suite are provided in Section 4 of this document.

The OnRAMP licensing process will require that you send a *hostid* file to Honeywell through the license configuration utility. You will then receive a *ULMLicense* file back from Honeywell.

Installing the *ULMLicense* file allows you to start using the OnRAMP Design Suite. You can successfully install the OnRAMP Design Suite without completing the licensing process. However, you will need to complete the licensing process to start using the OnRAMP Design Suite. For details on the licensing process, see Section 5.

The OnRAMP Design Suite requires certain third-party software applications, or prerequisites, to be installed on the computer along with the Design Suite. While four of these third-party applications are included with the OnRAMP installation and require no additional downloads by the user, two other third-party applications need to be independently installed and licensed. You can successfully install the OnRAMP Design Suite without having these two independent prerequisites already installed on your computer. However, you need to have these prerequisites installed to start using the OnRAMP Design Suite. For further details, including supported versions of the prerequisite software, see Section 6.

Minimum computer hardware specifications for the OnRAMP software are provided in Section 7.

OnRAMP Design Suite R104 cannot be licensed in a virtual machine and must be run on physical hardware.

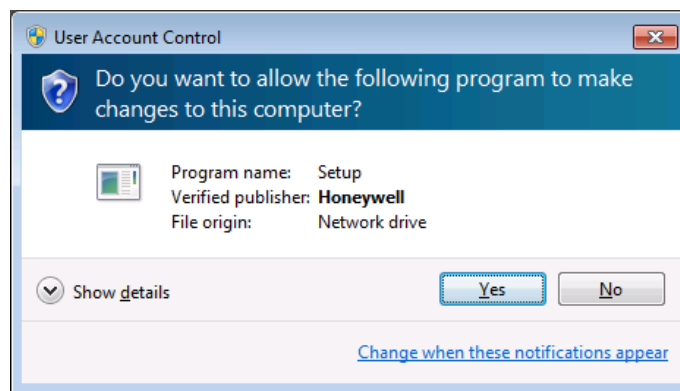
4 Installation Procedure

To install the OnRAMP Design Suite software application:

1. Insert the installation media into your computer's DVD drive and double-click on the *setup.exe* file. *Setup.exe* launches automatically once the DVD is inserted in your DVD drive if auto run is enabled.



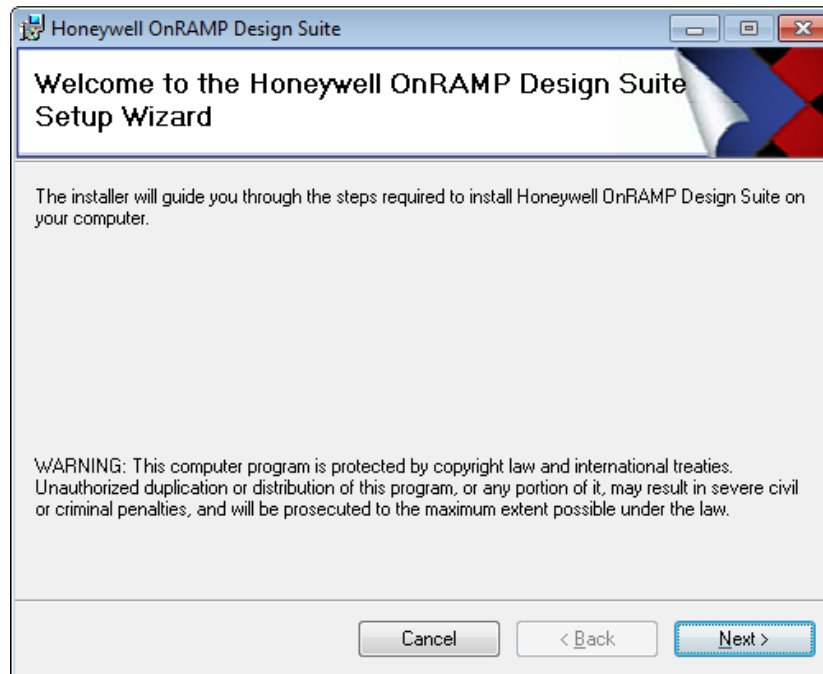
ATTENTION: The installer requires administrator privileges on Windows 7. If you have User Account Control (UAC) enabled, you are prompted to elevate the privileges of the setup application for the install. If you are prompted to elevate privileges, select **Yes**. You may also need to provide credentials of a user with administrator privileges, if the current account does not have these privileges already.



2. If you get a dialog notifying you that prerequisites are required, install the prerequisites as suggested (see Section 6 for prerequisite details). If you require the .Net 4.0 Framework prerequisite, you will be asked to agree to the Microsoft End User License Agreement to install the software package.

The process of installing the prerequisites may require a reboot.

3. Once the prerequisites are installed, you are presented with an OnRAMP installation welcome dialog. If the OnRAMP installation welcome dialog does not appear after the prerequisites installation, double-click on the *setup.exe* file to restart the OnRAMP installation process. Select **Next**.



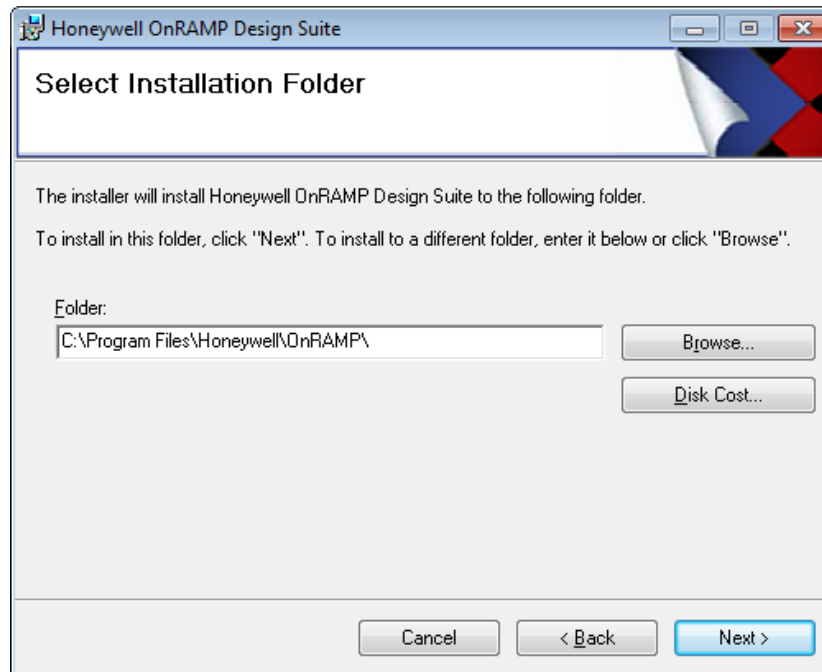
The License Agreement dialog appears.

4. If you agree to the license terms, click the *I Agree* radio button and select **Next**.



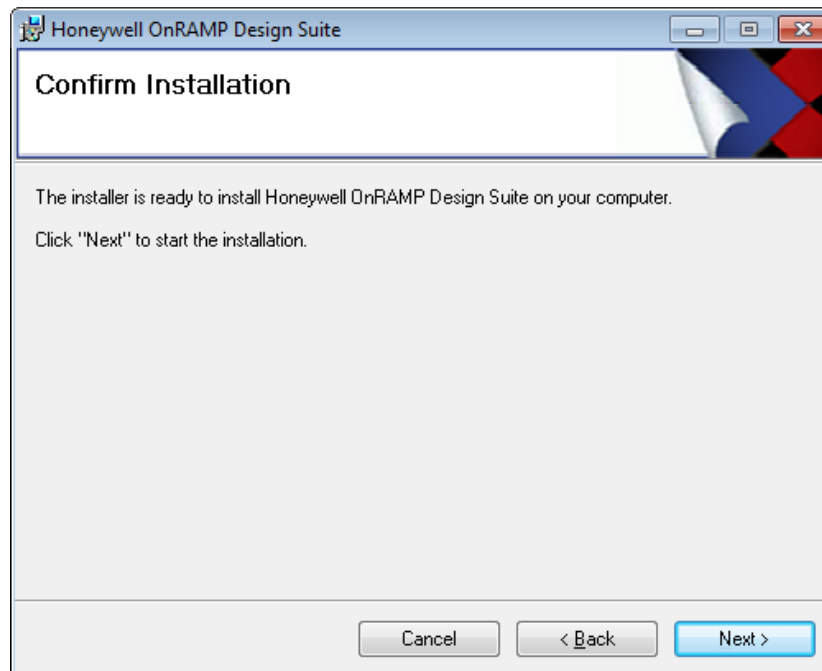
After agreeing to the license terms, you are prompted for the installation folder.

5. Select **Next** to proceed with the default installation folder.



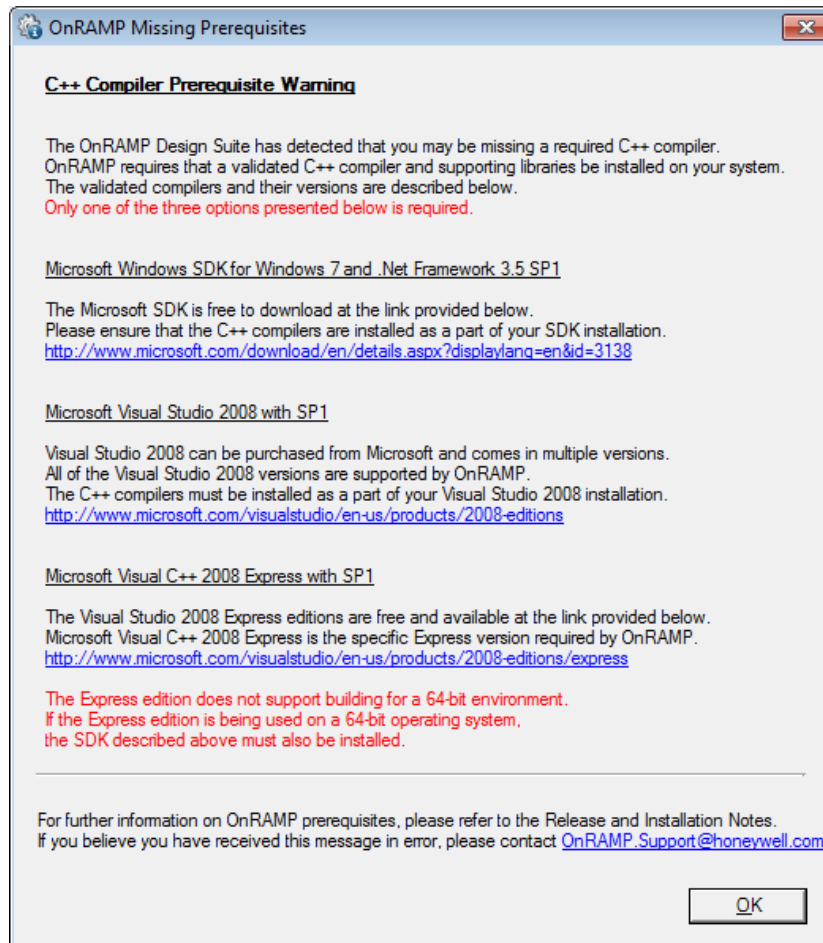
The installation confirmation dialog appears.

6. Select **Next** to start the installation.



7. If you are missing any of the independent prerequisites, you will be notified during the installation process. The prerequisite messages are informational and do not impact the installation process. You will need to install the prerequisites before using OnRAMP.

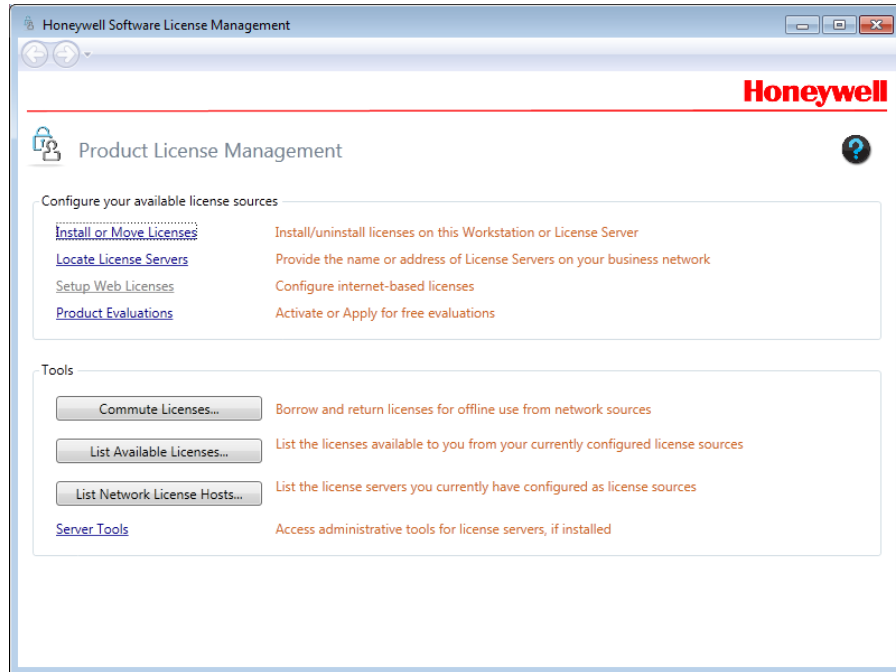
See Section 6 for the list of software prerequisites and their validated versions.
If you do get prerequisite message(s), acknowledge the message(s) by selecting **OK**.



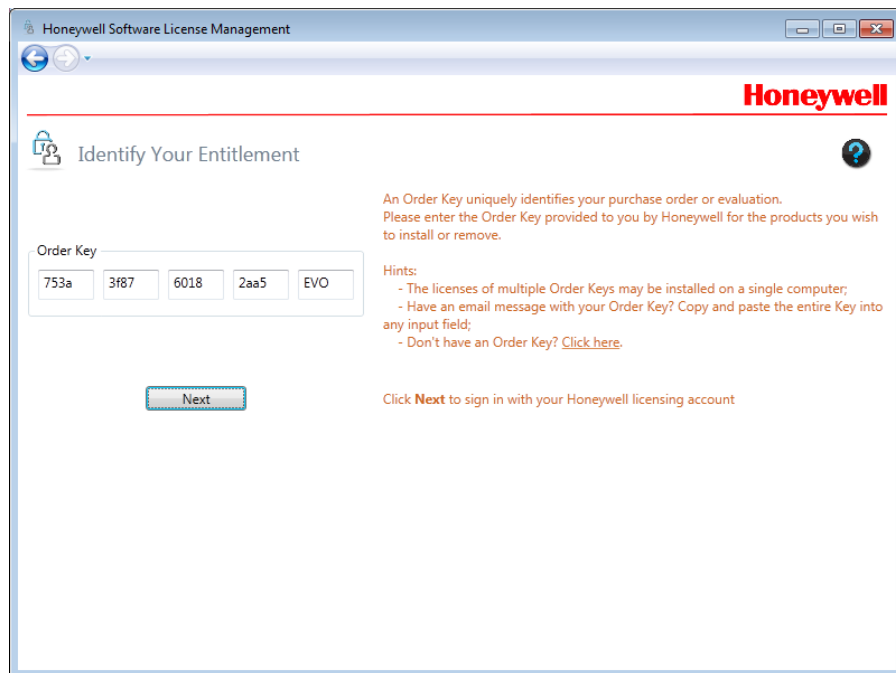
8. Near the end of the installation, you are prompted to license the software through the Honeywell Software License Management Utility (the ULM Config Wizard). Cancelling the license configuration (by closing the window) will not impact the installation process.

Instructions on completing the licensing process after the installation are available in Section 5.

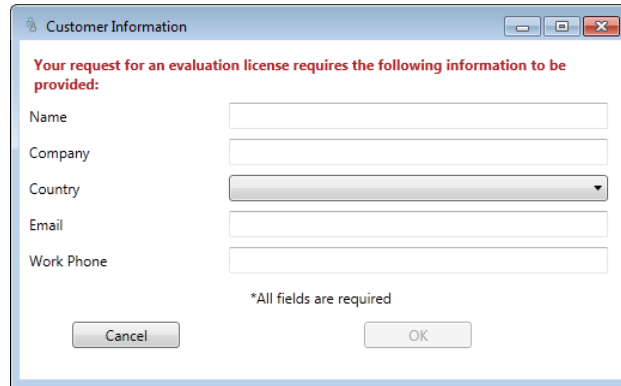
9. Select **Install Or Move Licenses** on the Honeywell Software License Management dialog.



10. Enter the following Order Key (can be copied and pasted into the dialog):
753a-3f87-6018-2aa5-EVO
Select **Next**.



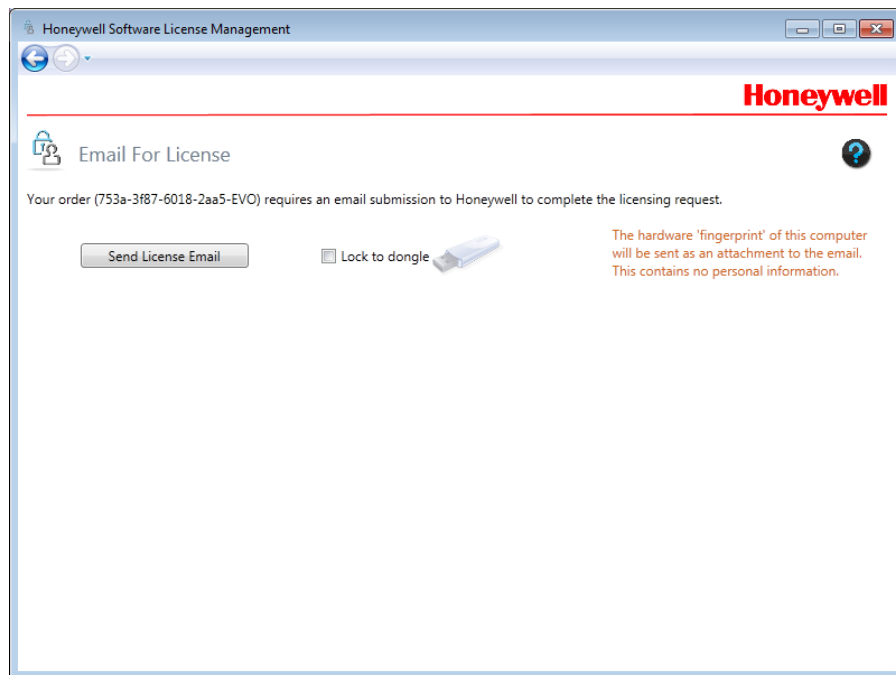
11. You will see a Customer Information dialog.
Complete all fields on the **Customer Information** dialog and select **OK**.
For the Name field, both first and last name should be entered.



A screenshot of the 'Customer Information' dialog box. The title bar says 'Customer Information'. Inside, a red message states: 'Your request for an evaluation license requires the following information to be provided:'. Below this are five input fields: 'Name', 'Company', 'Country' (a dropdown menu), 'Email', and 'Work Phone'. At the bottom, there is a note '*All fields are required' and two buttons: 'Cancel' and 'OK'.

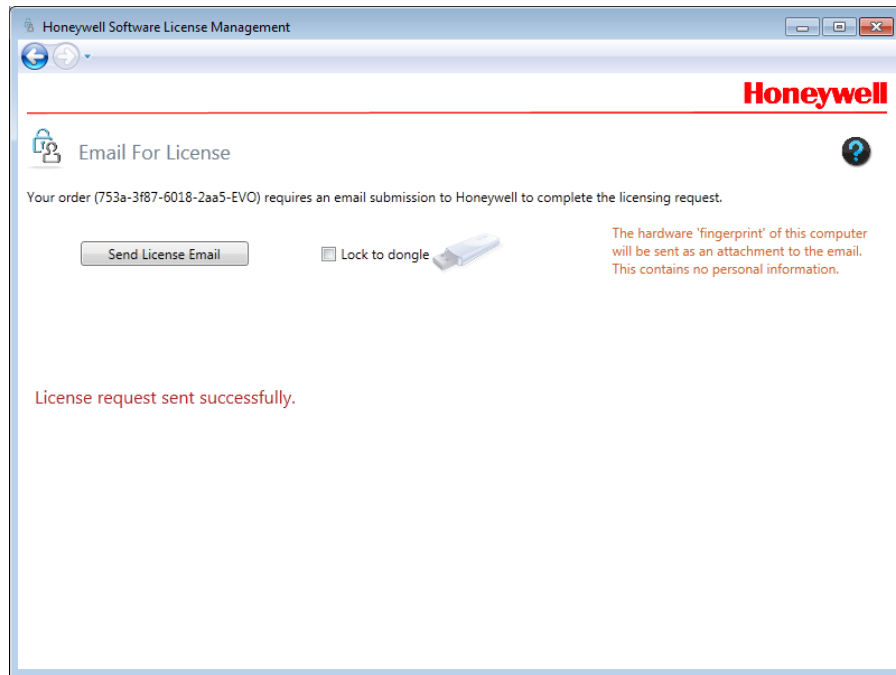
The Email For License dialog appears.

12. Select **Send License Email**. Leave the **Lock to dongle** option unchecked.



A screenshot of the 'Email For License' dialog box within the 'Honeywell Software License Management' application. The title bar says 'Honeywell Software License Management'. The main window has a 'Honeywell' logo in the top right. Below the logo, the text reads: 'Your order (753a-3f87-6018-2aa5-EVO) requires an email submission to Honeywell to complete the licensing request.' There are two buttons: 'Send License Email' and 'Lock to dongle' (which is unchecked). To the right of the 'Lock to dongle' button is a small icon of a USB dongle. Further right, a red message states: 'The hardware 'fingerprint' of this computer will be sent as an attachment to the email. This contains no personal information.'

13. The license configurator emails your *hostid* file to the OnRAMP Support team.
If this step succeeds, the dialog will display a message indicating that the request was sent successfully. If your email client performs a send on a periodic basis, you may want to initiate a send to prevent any delays in receiving a license.
Close the dialog and go to Step 15.



If the automated *hostid* email fails, you may get an error message popup indicating that you do not have an email client.

14. If you get a message indicating that the application has failed to send the email, review the additional instructions detailing the process to manually send the license file to OnRAMP support. If the instructions are not visible, send an email to OnRAMP.Support@honeywell.com, with the *hostid* file included as an attachment.

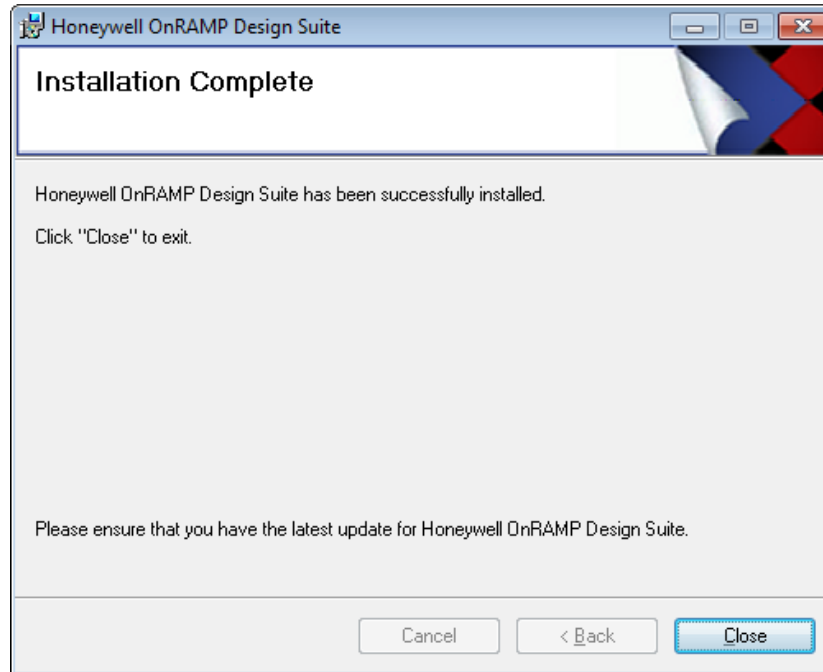
The *hostid* file can be found in the following location:

C:\Program Files (x86)\Common Files\Honeywell\SimStation\license.hostid

If you are running a 32-bit Operating System, remove (x86) from the path shown above.

Close the License Management window by using the red X in the top right corner of the dialog.

15. Select the **Close** button on the final dialog to complete the installation.



There is now a shortcut on the desktop as well as in your **Programs** menu. These shortcuts can be used to launch the OnRAMP Design Suite application.

Once you have completed the *hostid* submission, you need to install a license before using the OnRAMP application. Instructions on installing the license are available in Section 5.

5 Licensing

The OnRAMP Design Suite requires that the end user be licensed to use the software's functionality.

The OnRAMP licensing approach is a Honeywell proprietary licensing method called ULM. The licenses are tied to the named user and the hardware profile where OnRAMP is installed, and cannot be transferred between computers.

5.1 Requesting a License

During the OnRAMP installation, you are prompted with a license dialog.

If you close the licensing dialog during the install, or it fails because you do not have an email client on the computer, you can re-launch the ULM License Configuration Wizard from the machine where OnRAMP was installed by going to the Start menu and selecting **Programs→Honeywell→ULM Config Wizard**.

After launching the ULM Config Wizard, follow the licensing steps (steps 9-14) provided in Section 4.

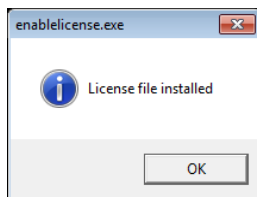
If the transmission fails due to a missing email client, follow the manual steps provided in step 14 of Section 4 to submit your *hostid* file to OnRAMP Support.

5.2 Installing a License

After receiving your license request, the OnRAMP support team reviews the information and emails a license (*ULMLicense*) file back to you. This *ULMLicense* file needs to be installed to license the computer that will be running the OnRAMP software.

To install the *ULMLicense* file:

1. Copy the *ULMLicense* file to the computer that will be running OnRAMP.
The folder location where the file is copied to will not impact the remaining steps.
If your email client is on the same machine that is running OnRAMP, this step can be ignored.
2. Double-click the *ULMLicense* file.
The *ULMLicense* file extension is registered to the appropriate license installer.
Double-clicking the file runs a tool to import the license information for use with the OnRAMP application. On a successful import, you see this message:



It is not possible to install a ULM license on a virtual machine.

If you have any licensing problems, contact the OnRAMP support team (see Section 1.3).

6 Software Prerequisites and Compatibility

The OnRAMP Design Suite requires certain third-party software applications, referred to here as prerequisites, to be installed.

Those prerequisites are:

- MATLAB and Simulink (with Control System and Optimization toolboxes)
- C++ Compiler
- .Net Frameworks 3.5 SP1 & 4.0
- Windows Installers 3.1 & 4.5

Two of the prerequisites – MATLAB/Simulink and the Visual C++ compiler – must be downloaded and installed separately from the OnRAMP software.

The other prerequisites – the .Net Frameworks and Windows Installers – require no additional downloads and are installed as a part of the OnRAMP installation process if required.

6.1 MATLAB and Simulink

The OnRAMP Design Suite requires that MATLAB and Simulink be installed on the same computer. MATLAB and Simulink require their own licenses. Install them separately.

MATLAB and Simulink are developed by MathWorks and are packaged with MathWorks software releases. The following MathWorks releases were validated for use with the OnRAMP R104 release.

As both Simulink and MATLAB are required, their respective versions are also included below (in parenthesis).

MathWorks Release	Architecture(s)
Release 2009B SP1 (MATLAB 7.9.1 and Simulink 7.4.1)	Same as Operating System (32-bit)
Release 2010A (MATLAB 7.10 and Simulink 7.5)	Same as Operating System (32-bit or 64-bit)
Release 2010B SP1 (MATLAB 7.11.1 and Simulink 7.6.1)	Same as Operating System (32-bit or 64-bit)
Release 2011A (MATLAB 7.12 and Simulink 7.7)	Same as Operating System (32-bit or 64-bit)

The following MATLAB toolboxes are required to use the OnRAMP R104 Design Suite.

MATLAB Toolbox
Control System Toolbox
Optimization Toolbox

The MATLAB installation must be registered as a COM server on your computer to be available for use. If a supported version of MATLAB is installed but not available for selection in the OnRAMP Preferences dialog, the MATLAB installation will need to be registered as a COM server. See the – *regserver* command details at <http://www.mathworks.com/help/techdoc/ref/matlabwindows.html> for more information.

6.2 C++ Compiler

The OnRAMP Design Suite requires that a C++ compiler be installed on the computer running OnRAMP. The validated compiler for use with OnRAMP is the Microsoft Visual C++ Compiler that is provided with Visual Studio 2008. If you do not have Visual Studio 2008 installed, the compiler is available for free with the appropriate Windows Software Development Kit (SDK).

The Visual C++ compiler can be installed by one of three methods (only one is required):

- **Microsoft Visual Studio 2008 with SP1**

Visual Studio 2008 can be purchased from Microsoft and comes in multiple versions.

All of the Visual Studio 2008 versions are supported by OnRAMP.

The C++ compilers must be installed as a part of your Visual Studio 2008 installation.

More information on Visual Studio 2008 is available at:

<http://www.microsoft.com/visualstudio/en-us/products/2008-editions>

- **Microsoft Visual C++ 2008 Express with SP1**

The Visual Studio 2008 Express editions are free and available at the link provided below.

Microsoft Visual C++ 2008 Express is the specific Express version required by OnRAMP.

The Express edition does not support building for a 64-bit target.

If the Express edition is being used on a 64-bit Operating System, the Windows SDK must also be installed.

More information on Microsoft Visual C++ 2008 Express is available at:

<http://www.microsoft.com/visualstudio/en-us/products/2008-editions/express>

- **Microsoft Windows SDK for Windows 7 and .Net Framework 3.5 SP1**

The Microsoft Windows SDK is free to download at the link provided below.

Please ensure that the C++ compilers are installed as a part of your SDK installation.

Note that while the SDK mentions Windows 7, it will support all of the Operating Systems validated for use with the OnRAMP application.

<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=3138>

C++ Compiler Release	Architecture(s)
Microsoft Visual C++ 9.0 (Visual Studio 2008, Windows 7 SDK)	Same as Operating System (32-bit and 64-bit)

6.3 .Net Framework

The OnRAMP Design Suite requires the installation of .Net Framework versions 3.5 SP1 and 4.0. The OnRAMP installation package installs these versions of the .Net Framework on your computer if they are not already installed.

6.4 Windows Installer

The OnRAMP Design Suite requires the installation of Windows Installer versions 3.1 and 4.5.

The OnRAMP installation package installs these versions of the Windows Installer on your computer if they have not already been installed.

6.5 Windows Operating System

The OnRAMP Design Suite has been validated against the following Operating Systems:

Operating System	Architecture(s)
Microsoft Windows XP Professional SP3	32-bit
Microsoft Windows 7 SP1	32-bit and 64-bit

6.6 Microsoft Excel

The OnRAMP Design Suite does not require Microsoft Excel as a prerequisite, and is able to import data from, and export data to, the Excel spreadsheet format without Microsoft Excel being installed. The Design Suite will work with spreadsheets of version Excel 97 or later.

To open, view, or print an Excel spreadsheet, the computer must have Microsoft Excel, or the free Microsoft Excel Viewer, installed. The Microsoft Excel Viewer is available at:

<http://www.microsoft.com/download/en/details.aspx?id=10>

7 Hardware Recommendations

As OnRAMP is a computationally intensive application, the following minimum hardware specifications are required.

Hardware	Minimum Specification
Processor	Pentium 4 dual core; 3.0 GHz ; SSE2
Memory	2 GB
Available Hard Drive Space	100 MB The hard drive space specification is for the OnRAMP installation only, and does not include prerequisite requirements. Data and project file size totals can vary greatly and are not included in the minimum specification.

8 Uninstall Instructions

To uninstall the software, go to **Add\Remove Programs** (or **Programs and Features**) in **Control Panel** and select **Honeywell OnRAMP Design Suite** to uninstall.

Uninstalling OnRAMP does not uninstall any of its prerequisites.

To uninstall the prerequisites, you can do so independently through **Add\Remove Programs** (or **Programs and Features**).

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1. nLog:

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