



**Rational ClearQuest EmailPlus Package 2.1**  
**Release Notes and Installation Guide**  
**Issue 1.0**



## TABLE OF CONTENTS

<b>1 INTRODUCTION .....</b>	<b>3</b>
<b>1.1 OVERVIEW .....</b>	<b>3</b>
<b>2 ENVIRONMENT REQUIREMENTS .....</b>	<b>3</b>
<b>3 RELEASE NOTES .....</b>	<b>4</b>
<b>3.1 RELEASE 2.1.....</b>	<b>4</b>
<b>3.2 RELEASE 2.0.....</b>	<b>4</b>
<b>3.3 RELEASE 1.7.....</b>	<b>5</b>
<b>3.4 RELEASE 1.6.....</b>	<b>5</b>
<b>3.5 RELEASE 1.5.....</b>	<b>5</b>
<b>3.6 RELEASE 1.4.....</b>	<b>6</b>
<b>3.7 RELEASE 1.3.....</b>	<b>6</b>
<b>3.8 RELEASE 1.2.....</b>	<b>6</b>
<b>3.9 RELEASE 1.1.....</b>	<b>6</b>
<b>4 INSTALLING THE PACKAGE.....</b>	<b>7</b>
<b>4.1 UPGRADING FROM EMAILPLUS 2.0.....</b>	<b>7</b>
<b>4.2 UPGRADING FROM VERSIONS 1.0 OF EMAILPLUS.....</b>	<b>8</b>
<b>4.3 INSTALLATION STEPS.....</b>	<b>8</b>
<b>5 KNOWN ISSUES.....</b>	<b>10</b>
<b>5.1 RELEASE 2.0.....</b>	<b>10</b>
<b>NOTICES.....</b>	<b>12</b>
<b>TRADEMARK ACKNOWLEDGMENTS .....</b>	<b>14</b>

## **1 Introduction**

This document provides the following information

- Environment requirements of the package
- Changes since previous releases
- Instructions to install the package

The *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* provides details of how to apply the EmailPlus package to a ClearQuest schema.

### **1.1 Overview**

The Rational ClearQuest EmailPlus Package (EmailPlus) enhances the functionality for email notifications. The default functionality for the ClearQuest Email Rules package provides basic facilities to communicate record changes to users. EmailPlus provides several additional features to provide an enhanced email experience for users.

These features include support for the following things:

- Customize the content of the message subject and body text to allow boilerplate text to be included.
- Include dynamic content in email messages in addition to field old or new values.
- Include rich content (HTML).
- Provide access to SMTP restricted servers.
- Attach files to email messages.
- Allow enhanced conditions to construct the rules.
- Allow users to subscribe themselves to rule or record notifications.
- Enable enterprise-wide configuration of email notifications in addition to allowing individuals to turn on or off email notifications.
- Provide several performance improvements, particularly if queries are used.
- Extend the rules and data displayed through customer provided extensions.

## **2 Environment requirements**

The EmailPlus package consists of four components:

- The ClearQuest EmailPlus Package
- An optional stand-alone EMP Relay application, which must be deployed on a Windows server and does not work on a UNIX server
- Two batch files to register the package: one file for ClearQuest Version 7.0 and earlier, and one for ClearQuest Version 7.1 and later
- The EmailPlus package documentation

## ClearQuest EmailPlus Package 2.1

### Release Notes and Installation Guide

---

The EmailPlus package is written entirely in PERL, but if your selected schema script language is VBScript, you can still use this package. You can deploy the package in mixed environments to ClearQuest Web or ClearQuest clients that run on Windows or UNIX and Linux platforms.

The EMP Relay component that is used with the SMTP Relay and PostOffice Relay mail transport modes works only on Windows operating systems. More information about when to deploy this component is available in the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide*.

**Note:** The EMP Relay application currently runs as an application, not a Windows service. The relay must run at all times if you are using a mail transport mode that requires it.

## 3 Release notes

See the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* for full details of the package capabilities.

### 3.1 Release 2.1

This maintenance release resolves many defects in version 2.0. There is no new major functionality over version 2.0, but users are encouraged to upgrade for stability.

The ability to apply the EmailPlus package to any schema has now been enabled. This means that you can now apply the package to your custom schemas and record types.

The ability to apply the EmailPlus package and features to Stateless records has also been improved, and can now be done using the standard ClearQuest mechanisms.

Support for ClearQuest 7.1 Rest URIs is included in this release.

There is a major update that affects users upgrading from EmailPlus 2.0 is a fix to inconsistent behaviour when generating HTML content in emails. This is discussed briefly in section 4.1 of this document, Upgrading from EmailPlus 2.0, and in more detail in section 3.3 in the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide*.

### 3.2 Release 2.0

This major product release converts the package language from VBScript to PERL. This package is now supported in the ClearQuest client on Windows and UNIX and Linux platforms. It also works with ClearQuest Web on Windows and UNIX and Linux.

Due to the major change in the package, ensure that you read all the release and installation notes if you are upgrading from a version 1.0 or later release of the EmailPlus package.

There are no new major features over version 1.7, but instead the focus with this package is to enable it to be used with UNIX and Linux ClearQuest clients in addition to Windows clients.

### **3.3 Release 1.7**

This maintenance release fixes a few defects introduced in Release 1.6. Release 1.6 was not made public; see the “Release 1.6” section for information about what is new since version 1.5.

Because small changes occurred in the procedure for installing the package, read section 4 for details even if you are familiar with previous versions. This change was necessary because of some differences in the installation of ClearQuest 7.1.

### **3.4 Release 1.6**

This maintenance release eliminates the dependence on the third-party custom control *ToolSack Baseline Components*. This release was not available publically.

This release also fixes the following defects:

- When a user subscribed to a record using the special interest feature, all other subscribers received an email message that stated someone changed their subscription. EmailPlus now ignores changes to the subscription field when evaluating changes. If other fields change at the same time, an email message is still generated.
- The email template validation process incorrectly reported an error if the state field was included in the template. This error was caused by an inappropriate use of a ClearQuest API call. This defect is now fixed.

Instead of the *ToolSack Baseline Components* control, the package now uses the facilities of Microsoft Collaboration Data Objects (CDO) component for its SMTP Client and some additional facilities of the Microsoft XML DOM Document interface for its HTML Post Request, which now communicates with the Relay Service Component *CQ SMTP Forwarder*.

### **3.5 Release 1.5**

This maintenance release introduces extensions to capabilities.

This release fixes these defects:

- Rules did not run if two or more addresses were in the To and CC fields for a message.
- Embedded charts in email messages did not run or returned no data.

This release introduces the following capabilities:

- Expression expansion capabilities were extended to make them more useful. In previous versions, expressions had to be specified in the template and could contain no data from a record field. Although you could specify a field expansion within an expression, the expression did not correctly evaluate when the template was defined because the field value was expanded as plain text. To work correctly, a properly typed value needed to be returned. For example, a date

## **ClearQuest EmailPlus Package 2.1**

### **Release Notes and Installation Guide**

---

should have been returned as a date object, a string as a quoted string, and so on. The package now correctly identifies the context with a meta tag expansion and returns a properly typed value instead of only the field content.

For example, consider the following expression:

```
#@expression::formatdatetime(#{submit_date?#,1})@#
```

This expression returns a properly formatted date, such as 15 July 2008, based on the value in the "submit\_date" field.

See Section 3.1.1 in the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* for more details.

A preconfigured demonstration database is now provided in the installation, which can help you get started quickly and practice with an experimental environment.

### **3.6 Release 1.4**

This maintenance release deprecates the use of the API ValueChangedThisAction in ownership tests, because as it does not record changes to fields if the change occurs during the action initialization hook.

### **3.7 Release 1.3**

This maintenance release fixes a defect that was reintroduced in Release 1.2 to do with ownership. Ownership code was rewritten and optimized to minimize queries. This fix also allows the flexibility for owner fields to be simple text fields that contain a ClearQuest user ID.

### **3.8 Release 1.2**

This release contains no new features, only fixes for defects related to the following items:

- Ownership notification rule. In some circumstances, email messages were generated with the user ID of users, not their email addresses, or email was generated even when the owner had not changed.
- Ownership notification execution
- Dependent fields on CQWeb for the EmailPlusRule record

### **3.9 Release 1.1**

This release contains no new features, only defect fixes and clarifications for the following items:

- Subscriptions to records or rules generated an error when the list contained more than one user.

## ClearQuest EmailPlus Package 2.1

### Release Notes and Installation Guide

---

- Subscriptions and general group memberships were affected by an SQL bug when using a SQL server database. Queries were rephrased to avoid this problem.
- Subscription records were not deleted when they were removed from a rule. The documentation was updated to indicate the manual process that is required in MultiSite environments.
- Special interest subscriptions were allowed when no template existed to trigger them. Revisit Section 6.3 of the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* if you manually enabled stateless record types. The record script code has changed slightly.
- Group list restriction on subscriptions did not work.
- The subscribe action did not work because of a SQL problem.
- Some cache names did not comply with package-naming standards.

## 4 Installing the package

The ClearQuest EmailPlus package contains five components:

- The ClearQuest EmailPlus Package
- Two batch files to register the package: one file for releases of ClearQuest Version 7.0 and one for ClearQuest 7.1 and later
- The EMP Relay application (Windows only)
- The EmailPlus package documentation
- A demonstration database set

The ClearQuest EmailPlus package must be installed on every computer on which you intend to run the ClearQuest Designer tool. The package does not need to be installed on ClearQuest client-only computers.

The EMP Relay application should be installed only on one computer with the ClearQuest client installed for each ClearQuest site, and only if a mail transport mode (SMTP Relay or PostOffice Relay) is selected to use it.

If you are upgrading from a version 1.0 release the ClearQuest EmailPlus package, see section 4.2.

If you are installing EmailPlus 2.1 for the first time, see section 4.3.

### 4.1 Upgrading from EmailPlus 2.0

Before upgrading to EmailPlus 2.1, ensure that any customizations in the EMP\_Customisable Perl global script are copied and saved externally to ClearQuest. The EMP\_Customisable global script was modified since version 2.0, and your customizations must be reapplied to the global script after you upgrade the package in your schema.

## **ClearQuest EmailPlus Package 2.1 Release Notes and Installation Guide**

---

Changes were made to the EmailPlusRules functions, so you must modify at least one EmailPlus rule for each record type in which rules are defined. This modification automatically updates the EmailPlusAction records. If you do not modify a rule, you might find that some or all rules might not work as expected.

Some changes have also been made to the way EmailPlus builds the EmailPlusRules expressions. This means that it is necessary to rebuild all of the EmailPlusAction records. A new utility has been added to the EmailPlusConfig record called “RebuildEMPActions” which will allow the EmailPlusAdmins to rebuild all of the EmailPlusAction records very quickly. If you do not rebuild the EmailPlusAction records then you may find that some or all of your EmailPlusRules may not work as you expect.

A major update has been made in EmailPlus 2.1 to remove inconsistent behavior in EmailPlus 2.0. This affects the output from any Expressions or Custom MetaTags when used in HTML EmailPlusTemplate records. Refer to section 3.3 in the ClearQuest EmailPlus 2.1 Administrator’s Guide. We recommend that you verify the formatting of any HTML EmailPlus notification in a test environment prior to upgrading to EmailPlus 2.1 in a production environment.

### **4.2 Upgrading from versions 1.0 of EmailPlus**

If you are upgrading from a version 1.0 release of EmailPlus, review any customizations that you made to the EmailPlus package, because you must convert them from VBScript to PERL.

You must review all EmailPlusTemplate and EmailPlusRule records and replace any VBScript expressions with PERL versions. If you do not update the expressions, they are not be correctly evaluated by PERL. Set up a test environment that runs the PERL version to test and convert your existing EmailPlusTemplate and EmailPlusRule records.

The Name field in the EmailPlusTemplates and the EmailPlusRule records were modified so that they can only contain the characters [A-Z], [a-z], [0-9], \_ (underscore), and – (dash). If you have existing EmailPlusRule or EmailPlusTemplate records with names that include characters that do not conform to the new convention, they must be renamed. Rename EmailPlusTemplate records first, and then rename EmailPlusRule records so that the rules and the EmailPlusAction records are updated correctly. Perform the renaming before upgrading to the EmailPlus 2.1 package.

### **4.3 Installation steps**

You must register the EmailPlus package with ClearQuest. For details about how to use the package with your schema, see the *Rational ClearQuest EmailPlus 2.1 Administrator’s Guide*.

Note the following items:

- Back up your ClearQuest databases before you apply the package.
- Apply the package to a copy of your schema first to evaluate it.
- Fully understand the implications of applying a package to a schema before you apply it in a live environment. Remember that you cannot remove a package from



## ClearQuest EmailPlus Package 2.1

### Release Notes and Installation Guide

---

a schema without deleting all schema versions that contain it and all databases that use any of those schema versions. See the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* for further details.

- The installation location varies depending on the version of ClearQuest and the location you chose to install the product. Use the following table to determine the correct locations and which script to run:

ClearQuest version	Default installation location	Registration script
7.0 or earlier	C:\Program Files\Rational\ClearQuest\packages	RegisterPackage.bat
7.1 or later	C:\Program Files\IBM\RationalSDLC\ClearQuest\packages	RegisterPackageCQ7.1.bat

**Table 1. Email Plus Default Installation Locations and Registration Scripts**

If you install ClearQuest to a different drive or path, use that path. In this case, you must copy the relevant RegisterPackage script and edit it to correctly reflect the installation location.

The compressed file named `EmailPlus<n.m>.zip` contains all the components except for the optional third-party component, which must be obtained separately. In the file name, `<n.m>` refers to the version number of the package.

To install the EmailPlus package, complete the following steps:

1. Extract the .zip file, which contains these directories:
  - Package: Contains all the ClearQuest Package files
  - Scripts: Contains the scripts to register the package
  - Relay: Contains the Mail relay application
  - Docs: Contains this installation guide and the *ClearQuest EmailPlus Administrator's Guide*.
2. Copy the contents of the Package directory to the appropriate location as shown in Table 1. If the directory in which ClearQuest is installed is different from the directory that is specified in Table 1, copy the Packages subdirectory to this directory instead.
3. If you installed ClearQuest in a nonstandard location, edit the Scripts\RegisterPackage.bat batch file to change the path to the package to reflect the installation location on your computer.
4. Select and run the appropriate batch file for your version of ClearQuest and the installation location according to Table 1. Remember that you might need to edit the script if you installed the product to a nonstandard location or drive. The scripts are in the

## ClearQuest EmailPlus Package 2.1

### Release Notes and Installation Guide

---

Scripts subdirectory. You should see something similar to the following example when the script runs:

```
C:\ > RegisterPackage.bat
+++ Registered version '1.0' of package 'EmailPlus' located in
'C:\Program Files\Rational\ClearQuest\packages\EmailPlus\1.0'
```

The exact content varies with the number of revisions of the package and installation path.

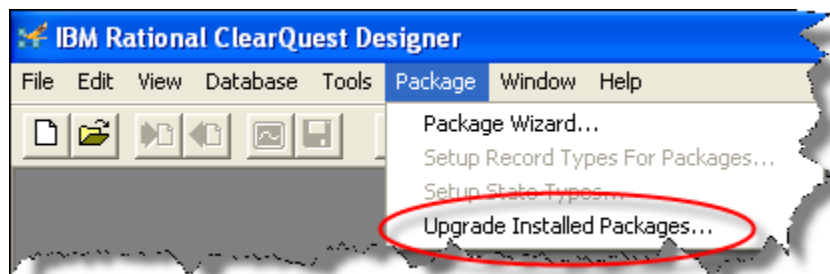
5. To complete the registration of the package with the ClearQuest Designer see the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* Section 6.1.

Read the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* in the Docs directory before you do anything further with the package.

If you have not previously applied this package, apply the package to a copy of your schema as described in Section 6 of the *Rational ClearQuest EmailPlus 2.1 Administrator's Guide* to evaluate the package first.

If this is an update to an existing deployment of the package, use the “upgrade installed packages” feature of the Designer.

**Note:** If the schema to which you applied the package does not show up or the package does not appear in the list of packages to update, you can upgrade it manually by using the package wizard and selecting the new revision and schema to apply it to. Click **More Packages** to add the latest revision.



If the evaluation is successful, repeat steps 1-5 on each computer where the ClearQuest Designer will be used to make schema changes or to upgrade databases.

Optionally, install the EMP Relay application from the Relay folder. You can delay this installation until a mail transport mode is selected. See the *ClearQuest EmailPlus Administrator's Guide* for details.

## 5 Known issues

This section lists the known issues of the EmailPlus package.

### 5.1 Release 2.0

## **ClearQuest EmailPlus Package 2.1**

### **Release Notes and Installation Guide**

---

- If you use PNG images in EmailPlus templates, the images might not display correctly as inline images in some email clients. This is due to PNG image support in email clients. To work around this issue, use either JPG or GIF file formats for images.
- The EmailPlus Relay Component is provided in two language variants: English only or English/Japanese/Chinese. The latter version defaults to the Japanese language in locales other than these. For English, use the English-only variant of the component, which is in the `Pkg_util` subdirectory under each of the package revisions for versions 2.0, 2.0.2, and 2.0.3.

## **Notices**

© Copyright IBM Corporation 2007, 2011

U.S. Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing*  
*IBM Corporation*  
*North Castle Drive*  
*Armonk, NY 10504-1785*  
*U.S.A.*

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

*Intellectual Property Licensing*  
*Legal and Intellectual Property Law*  
*IBM Japan, Ltd.*  
*1623-14, Shimotsuruma, Yamato-shi*  
*Kanagawa 242-8502 Japan*

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:** INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

## **ClearQuest EmailPlus Package 2.1**

### **Release Notes and Installation Guide**

---

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*Intellectual Property Dept. for Rational Software*  
*IBM Corporation*  
*5 Technology Park Drive*  
*Westford, MA 01886*  
*U.S.A.*

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

## **ClearQuest EmailPlus Package 2.1**

### **Release Notes and Installation Guide**

---

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

### ***Trademark acknowledgments***

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).