

Validation Guide for the



BMC Software, Inc.

Technology Alliance Program

Integrating with the Action Request System

Revision 3.2.4

The Intertek logo, which consists of the word "Intertek" in white, bold, sans-serif font, centered within a dark blue rounded rectangle.

Tests Executed by:



TABLE OF CONTENTS

1	INTRODUCTION.....	3
2	PRICING	4
2.1	AR SYSTEM INTEGRATIONS	4
2.2	ADDITIONAL SERVICES	6
3	GETTING STARTED – SCHEDULING AND SUBMISSION	7
3.1	PRE-SUBMISSION	8
3.2	TEST PROCESS IN LAB.....	9
3.3	FINAL RESULTS.....	10
4	AR SYSTEM LAB SPECIFICATION	11
4.1	COMPONENTS	12
5	TEST INFORMATION GUIDE	14
5.1	INTEGRATION NOTE REVIEW	15
5.2	INTERTEK VALIDATION TESTS	17
5.3	RECOMMENDATIONS.....	23
6	SPECIAL TEST EXCEPTIONS.....	25
7	TOP TEN REASONS FOR RESUBMISSION.....	26
	APPENDIX A – <u>TECHNOLOGY ALLIANCE MEMBER QUESTIONNAIRE</u>	28
	CONTACT INFORMATION	28
	PRODUCT INFORMATION.....	28
	APPENDIX B - INTEGRATION TIPS	29
	GENERAL.....	29
	APPLICATION PROGRAMMING INTERFACE INTEGRATION	29
	COMMAND LINE INTERFACE INTEGRATION/RUN PROCESS	29
	DYNAMIC DATA EXCHANGE (DDE)/OBJECT LINKING AND EMBEDDING (OLE)	30
	SQL INTEGRATION/ODBC	30
	E-MAIL INTEGRATION	30
	OTHER	30
	NETWORK & SYSTEMS MANAGEMENT	30
	APPENDIX C – INTERTEK TARGETED TEST SERVICES FOR THE DEVELOPER COMMUNITY	32
	APPENDIX D – CONTACT INFORMATION	33



1 Introduction

Welcome to the MarketZone Validation Program for Remedy Products covering integrations with the Action Request System. This program has been customized and designed in partnership between BMC Software, Inc. and Intertek. BMC Software has approved all aspects of the program. Your participation and feedback will help further define the tests and program.

The purpose of the program is to validate that MarketZone products are properly integrated using the AR System and to ensure the applications connect and work together. Central to this process is the full integration note (iNote). Therefore, the focus of the tests is to verify that the iNote is not only accurate and consistent with the behavior of the software, but also complete. The information in the iNote must describe in detail what is necessary to setup, install, and perform in order to successfully use the AR System with your product. We will verify any claims about the functionality made in the iNote.

The purpose of this validation guide is to provide Technology Alliance members with information about the various tests that will be performed when you submit your integration for validation. The focus of the testing is to verify the integration of your product with the AR System. The focus is not to validate your application's functionality itself. If there is any information that needs further clarification, please do not hesitate to let us know.

The process for submission of your integration note and software is also discussed, as well as the report produced during the test cycle. Our intent is to make this process as clear as possible.

We look forward to contributing to your product's success and working with you as part of MarketZone Validation Program.



2 Pricing

2.1 AR System Integrations

Product Type	Pricing
Basic Integrations (AR System)	
Full Validation Test Fee	\$ 2995
Additional Platform Full Validation Test Fee	\$ 1690
Re-test Fee	\$ 2130
Additional Platform Re-test Fee	\$ 1075
Workflow Intensive Integrations	
Full Validation Test Fee	\$ 5880
Additional Platform Full Validation Test Fee	\$ 2940
Re-test Fee	\$ 3260
Additional Platform Re-test Fee	\$ 1580

2.1.1 Basic Integrations - Testing Fees

The definition of a Basic Integration is one where the user is required to make minimal modifications to the AR System during the integration. In these cases, the work in the AR System is typically creating a small number of fields and/or a small number of active links. To define integration as a Basic Integration, for the AR System, ALL the following attributes will apply:

- less than 30 fields need to be created or imported.
- less than 20 active links/filters/escalations need to be created or imported.

2.1.2 Full Validation Test Fee - \$2995

This fee applies to the submission of one product integration. (Regardless of the Technology Alliance category) This fee includes testing for a single product on a single platform. For additional platform testing, please see the additional platform fee below.

2.1.3 Additional Platform Full Validation Test Fee - \$1690

This price represents a rerun of the tests for an additional hardware platform, i.e. an integration using UNIX and Windows. An integration that supports additional platforms, and contains instructions for the additional platform, requires a separate test for the platform.

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2.1.4 Re-test Fee - \$2130

For Technology Alliance member integrations that do not meet the validation requirements, we offer a reduced fee for a re-test of the integration. The re-test will be comprised of a full set of tests for the updated product integration and integration note. This fee is for the re-test of a single platform.

2.1.5 Additional Platform Re-test Fee - \$1075

The additional platform re-test fee is for Technology Alliance members who require a re-test for an additional platform, i.e. an integration using UNIX and Windows. Where the integration note contains instructions for an additional platform, a separate test is required for this additional platform.

2.1.6 Workflow Intensive Integrations - Testing Fees

The definition of a Workflow Intensive Integration is one where the user is required to make many modifications and/or additions to the structures in the AR System environment during the integration. In these cases, a large amount of workflow (forms, fields, filter and active links) are pre-designed and imported into the existing AR System environment or there is a large amount of workflow that is required to be created by the user during the integration. Workflow Intensive Integrations only apply to AR System integrations. To define integration as a Workflow Intensive Integration, one or more of the following attributes will apply:

- 30 or more fields need to be created or imported.
- 20 or more active links/filters/escalations need to be created or imported.

2.1.7 Full Validation Test Fee - \$5880

This fee applies to the submission of one product integration. (Regardless of the Technology Alliance category) This fee includes testing for a single product on a single platform. For additional platform testing, please see the additional platform fee below.

2.1.8 Additional Platform Full Validation Test Fee - \$2940

This price represents a rerun of the tests for an additional hardware platform, i.e. an integration using UNIX and Windows. An integration that supports additional platforms, and contains instructions for the additional platform, requires a separate test for the platform.

2.1.9 Re-test Fee - \$3260

For Technology Alliance member integrations that do not meet validation requirements, we offer a reduced fee for a re-test of the integration. The re-test will be comprised of a full set of tests for the updated product integration and integration note. This fee is for the re-test of a single platform.

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2.1.10 Additional Platform Re-test Fee - \$1580

The additional platform re-test fee is for Technology Alliance members who require a re-test for an additional platform, i.e. an integration using UNIX and Windows. Where the integration note contains instructions for an additional platform, a separate test is required for this additional platform.

Note: Payment of validation fees must be received by Intertek before testing begins.

2.2 *Additional Services*

2.2.1 Targeted Test Services for the Developer Community

Intertek offers additional test services customized to your product needs. Please see Appendix C for a full explanation of the Targeted Test Services for the Developer Community.

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3 Getting Started – Scheduling and Submission

To achieve validation, you must submit your software to Intertek BMC Validation Lab. The following process describes how to become a Validated Technology Alliance member.

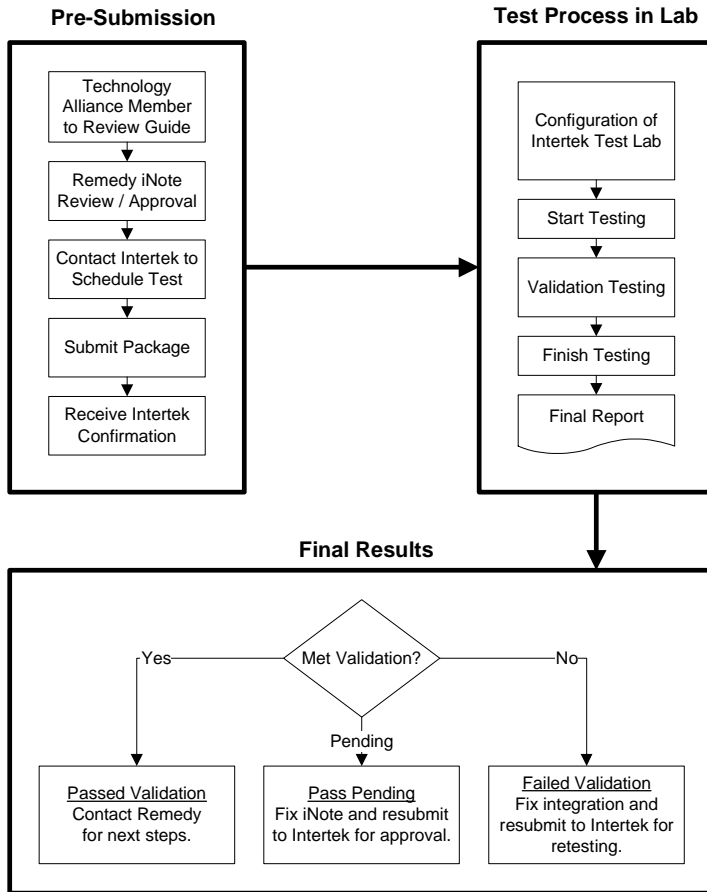


Figure 1: Validation Process Flowchart



3.1 *Pre-Submission*

3.1.1 Technology Alliance Member to Review Guide

Prior to completing the iNote and submitting the integration for testing at Intertek, we strongly recommend you review this validation guide thoroughly to ensure the product integration matches the outlined criteria. This reduces the need for re-testing, and can speed up the process. Chapter 9 contains a list of top ten most common reasons for re-submission.

3.1.2 BMC Software Review Process

Prior to scheduling the test with Intertek, the Technology Alliance member will go through a consultation period with BMC Software. During this period, BMC Software will review the contents of the iNote. Information on the content requirements is included in Chapter 5, the Test Information Guide. Once BMC Software has reviewed and approved the iNote they will send the “lab-ready” iNote to Intertek.

3.1.3 Contact Intertek to Schedule Test

Once all the processes required by BMC Software are met and the document has been verified for content by BMC Software, the Technology Alliance member may schedule the validation testing with Intertek. To schedule your test, call the Intertek’s lab at (925) 485-6175 or e-mail us at bmc@Intertek.com. You will receive confirmation the same working day for all calls and e-mails received by 3:00pm PST.

3.1.4 Submit Package

The next step is to submit the software and accompanying documents to Intertek. We prefer this to be submitted electronically via e-mail (bmc@Intertek.com). If you are not using electronic submission, or for sending payment, please ship the documents to the address listed in Appendix D, Contact Information. If all submission items are not received prior to the scheduled test date, we cannot begin testing, and may need to re-schedule the tests. The documents required for submission are as follows:

- In order for us to test the integration, we require the software package to be submitted. This includes any hardware, software, and installation documentation that is not part of the standard lab setup. Please see Chapter 4 for more information on the hardware and software in use in the lab. If you have any questions regarding software submission, please contact us at the number listed in Appendix D.
- The Technology Alliance questionnaire is required to be submitted, which provides general contact information. This is the Questionnaire provided in Appendix A. Please copy and paste this section into a new document.
- The signed Intertek Vendor Software Testing Agreement. We will fax this document to you, once the schedule has been confirmed. The Vendor Agreement needs to be returned only once. Additional MarketZone Validation testing will only require a product addendum to be signed.

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- Payment by check for the MarketZone Validation testing. Make checks payable to Intertek. See pricing section to determine fee. Payment is required before testing begins.

3.1.5 Receive Intertek Confirmation

Once we receive the software and associated documents, we will send out confirmation that we have received the documents, via e-mail. We will also confirm the test dates at this point.

3.2 *Test Process in Lab*

3.2.1 Configuration of the Test Lab

The Intertek's Test Team will notify the Technology Alliance member which components the member is responsible for configuring. Any configuration components beyond the scope of Intertek's testing environment need to be provided by the partner. It is preferable that the Technology Alliance member completes the configuration on-site at the Intertek Test lab. However, phone support during setup can be substituted if necessary.

When a validation testing time is booked, up to one week will be reserved for testing of the Technology Alliance member's integration. This will include up to an entire day for the lab configuration.

3.2.2 Start Testing

Once we have received all the necessary documentation and software, and we have confirmed receipt of the software, we will start the testing on the scheduled date.

3.2.3 Validation Testing

We will test the integration using the full iNote, and assess the integration for the validation criteria specified in the Test Information Guide, Chapter 5. We will verify that the claims of functionality and the installation/configuration instructions in the integration note are correct and complete according to the Technology Alliance member's software with the AR System.

3.2.4 Daily Status

Every day we will email a Daily Status report to all concerned parties which will detail progress of the testing and any open issues. Any requirements that are not met will be listed in the daily status report also.

3.2.5 Final Report

Once the test cycle is completed, we send out a final report to you and to BMC Software, detailing the tests undergone, and the results of those tests. Any open issues or failures will include detailed information, assisting you in correcting the fault.



3.3 *Final Results*

3.3.1 Validation Met

If all the requirements outlined in the tests are met, you will receive Validated status, and all the benefits that this encompasses.

3.3.2 Validation Not Met

If not all of the requirements outlined in the tests are met, you will have the opportunity to make any necessary corrections and resubmit the iNote. If the iNote contains minor mistakes, such as a single step missing from the example, then a Validation Met status may be awarded pending the change highlighted by the tests. Whether an iNote will be allowed a 'pass pending' will be the judgment of BMC Software with detailed information from the Intertek BMC Validation Test Team.

If changes to the iNote are necessary as part of a pass pending, the Technology Alliance member may then resubmit the iNote with the changes highlighted. We will then verify these changes against the suggestions noted in the final report. Once the necessary changes have been made, we will then issue a revised final report with a status of Validation Met. BMC Software will review the final iNote, add the product category and certification date, and convert the iNote to an Adobe Acrobat (pdf) file; prior to posting it on their website.

For integrations that do not pass the initial test criteria, a retest is allowed. A retest will involve a full pass through the validation criteria, with the associated cost (see chapter 2 for pricing details).

If there are areas of your iNote that do not meet the test criteria, and are either part of the design, or out of your control, you may be eligible for a fee waiver. Please see the section on Special Exceptions, Chapter 6 for more information.

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4 AR System Lab Specification

This section describes the platform configurations in the test lab. The AR System equipment, both Client and Server, will be “typical” systems. They will contain the base operating system, with all the current compatible service packs or patches. The database will be installed with all the current compatible service packs or patches. For further details on which service packs and patches are running in the lab, please contact us at the address listed in appendix D. The AR System will contain a test environment, with tailored workflow. This environment will be a typical help desk environment, which may not resemble sample workflow such as the Demo Help Desk.

It is important in writing your iNote NOT to assume that the user will have any sample workflow in their environment. The examples in the iNote must consider that most users will need to tailor the integration to their specific environment.



For example, the integration requires that a ‘Problem Category’ be passed from the third-party application to the AR System. The example states that the user needs to replace the ‘Problem Category’ field with the appropriate equivalent for their environment.

We will test on the most recent major release of the AR System. Exceptions to this may be granted by BMC Software during the consultation period. This will most commonly occur during the period immediately following a major release of the AR System. If instructed by BMC Software, we will test on a previous “dot” release of the AR System if that is the latest version a Technology Alliance member supports. We will maintain the lab with the latest “dot” release of the AR System, 30 days following the release. We will test integrations on these “dot” releases in most cases. If required by a Technology Partner and with BMC Software’s agreement, we can test on previous releases, or with specific AR System patches. We will not validate the integration software for any versions of the AR System prior to the two most recent major releases.

This configuration is important to reference when you are determining the system requirements of your integration. If your integration requires anything outside of the configuration listed here, it MUST be specified in the system requirements section of the iNote (i.e. sound card). If your integration requires AR System objects, (forms, data, etc.) these must be either included in the

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integration software, or must be listed as a requirement in the iNote. For example, if your integration depends on objects in the change management application, this must be listed as a requirement in the iNote. Also, if your integration requires any specific sub-components of the AR System, such as the mid tier server, or the plug-in service, this must be clearly stated in the system requirements section of the iNote.

If your application requires hardware or software that is not included in the standard lab setup listed below, we may require you to provide this equipment in order to test the integration **and provide shipping to return the equipment after the testing is completed.**

4.1 Components

The components on the test domain are as follows:

- Intel, Windows NT/2000 AR System servers. One of these servers will be a primary domain controller for the Validation lab domain.
- Sun SPARC 5, Solaris AR System Server
- Multiple Intel based clients, running a variety of Windows client software. In most cases a single client will be used.

The minimum specification for these systems is as follows:

- Intel Server: Intel Pentium III 2.80Ghz
12 GB Hard disk
CD-ROM
1 GB Memory
Windows 2000 Server SP4

The AR Server has MS SQL Server, AR System mid tier and Internet Information Server running. There are three systems. The domain controller has Exchange Server 5.5/2000 running, which will service mail for both the servers and all of the clients.

- AR System Client: Intel Pentium III 700Mhz
7GB Hard disk
CD-ROM
256Mb Memory
Windows 2000
Outlook 2000

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- Solaris Server: Sun Ultra 80 Workstation
450 Mhz Processor
72 GB Hard Disk
2 GB Memory
CD-ROM
Sun Solaris 8 (with latest recommended patches)

The Solaris server will use an Oracle database. The patches used are those that are recommended by Sun Microsystems. If your application requires any patches outside of these recommended patches, this must be specified in the iNote.

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5 Test Information Guide

This section is to provide a summary and description of the tests that will be executed by Intertek as part of BMC Software's MarketZone Program. To maximize the chances of your integration meeting validation, we recommend you perform these tests prior to submission. Ideally, someone would perform the tests other than the person(s) who developed the integration and/or wrote the iNote.

Prior to submission to Intertek, the iNote will be verified for content by BMC Software. We have included guidelines for assessing the content of the document, to enable Alliance members to better understand the requirements for this aspect of the iNote.

The test cycle will focus on the installation, configuration, and functionality of the integration. Any claims of the functionality of the integration made in the iNote will be verified. We will perform the integration using the example(s) provided in the iNote and the tests will be assessed based upon this process. We will perform the integration using the test lab specified in Chapter 4, with any additional hardware and software components listed in the iNote. In order to achieve a "Validation Met" status, the iNote must contain accurate, complete and straightforward instructions for performing the integration. We will verify the steps given in the iNote with the functionality of the software.

The validation tests will be comprised of two basic test sets, and a number of optional integration specific tests. The document consistency tests will verify the information in the iNote against the functionality in the applications. The general tests will verify specific aspects of the integration, such as passing of data and environment specific conditions. The remainder of the tests will be dependent on the method used for the integration. The categories assigned by BMC Software for the integration may also indicate additional tests are necessary. For example, an AR System integration using API and OLE methods would require the API and OLE tests to be run. (Sections 5. 2.11 and 5.2.6)

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The final test set is a series of recommendations, which have no bearing on validation. These tests are carried out, as time permits. Please refer to section 5.3 for more information. The recommendations, where appropriate, will add further value to the customer and make integrating the product smoother.



5.1 *Integration Note Review*

5.1.1 Documentation Content Guidelines

These requirements are verified by BMC Software prior to submission to Intertek. These requirements focus solely on the documentation. The iNote must contain all the information necessary to begin to integrate the product. These requirements will verify that the iNote template is used, and all the sections of the template are complete. Please see the Remedy iNote Template and iNote Read Me First files for further information.

5.1.2 General

The complete iNote must be clearly comprehensible. This requirement concerns the readability of the integration note.

- The iNote must reference the correct version of the AR System and use the appropriate terminology.
- The information in the iNote must be in the correct place.
- The iNote must be in the BMC Software iNote format, and all sections must have been completed as specified in the iNote template. This requirement will check the iNote content against the specification in BMC Software's iNote template. Please refer to this document for further information.

5.1.3 Title

The iNote title must be correct and list the correct product.

5.1.4 Product Abstract

The 'Product Abstract' section must be complete.

This section explains the features of the Technology Alliance member's product to the user, and is intended as a sales/marketing tool.

5.1.5 Integration Summary

The 'Integration Summary' must be accurate and complete.

Please describe the value of the integration, where it specifically applies to the AR System.

This section must adequately summarize the steps given in the integration details section. (Such as configuration of the application, creation of macros or active links, creating configuration files, setting parameters or mappings, etc.)

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This section or the Integration Details section must include any necessary documentation references. These documents must be supplied with the software. If no references are made, it is assumed that the integration can be performed with only the iNote.

This section should make clear the methods used to accomplish the integration (AR System API, Command Line Interface, active links, macros, etc.). A figure representing the integrated modules and the communication between them is highly desirable.

5.1.6 Support Information

The 'Support for Integration' section must be complete.

5.1.7 System Requirements

The 'System Requirements' section must be complete. It should show versions and platforms supported for both your products and BMC Software products.

5.1.8 Contact Information

The 'Contact Information' section must be complete.

5.1.9 Integration Details

The 'Integration Details' section must be complete and understandable. This section needs to have a clear flow of information and instructions.

This section is specifically for the technical personnel who will be performing the tasks necessary to integrate the product. This section must be precise. Every step must be explained in a concise and clear manner.

5.1.10 Sample Scenarios

The Sample Scenarios section must contain at least one clear example of using the integration. This example needs to be representative of a production environment.

The examples must cover all of the platforms that the integration supports. If necessary, multiple scenarios can be used to represent multiple platforms.

5.1.11 Endnotes

The 'Endnotes' section must be complete and reference all BMC Software products and trademarks mentioned in the iNote

5.2 Intertek Validation Tests

5.2.1 Documentation Consistency Requirements

This test set will validate the functionality of the iNote against the actual functionality of the application and the AR System. We will integrate the application with the AR System, according to the instructions provided in the iNote.

Where some of the following tests are marked as having not met validation, other tests may also be marked as having not met validation. For example, if the iNote misses a step that explains to the user how to configure a mapping file, the integration would not meet validation for test 5.2.1 (b) (iii) and test 5.2.2 (g). This is intended to provide more information about any corrections that are necessary.

- (a) Verify the ‘System Requirements’ section details ALL software and hardware requirements for using the application, and integrating with the AR System.
 - (i) Verify any versions of applications or operating systems required are indicated, e.g. scripting engines.
 - (ii) Verify any BMC Software applications (Help Desk, Change Management, etc.) that are needed are specified. This test also verifies any additional AR System components needed are specified (e.g. plug-in service, mid tier)
 - (iii) Verify the iNote specifies which applications need to be running prior to performing the integration.
 - (iv) Verify any licensing requirements are stated.

If no additional AR System components are specified, it is assumed that the integration can be performed with just the basic AR System installation.

- (b) Verify the ‘Integration Details’ section is accurate, complete, and consistent with the software.
 - (i) Verify the example given covers the core features of the integration.
 - (ii) Verify all the steps in this section function according to the application, the AR System, and the operating system.
 - (iii) Verify all the steps necessary to perform the integration are included, and that no other steps outside of the iNote are necessary to perform the integration.
 - (iv) Verify the integration details section includes a “checklist” for required information, such as hostname, SMTP mail server, etc.
 - (v) Verify that an overview component diagram is given which clearly displays the interaction of the AR System, and the integrated application.
 - (vi) Verify that the iNote includes a list of directories that will be created and any key files used in the integration.
 - (vii) Verify that the user is directed to additional documentation for further customizations.

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5.2.2 General Integration Requirements

These requirements consist of general requirements, which may or may not be needed, depending on the nature of the integration. These requirements are mostly common requirements to all the methods, such as the starting of applications, or the passing of data.

- (a) If the integration involves modification of AR System data by someone other than the submitter, verify that a Write License is required.
*The integration must not modify AR System data through a single user license. The application must ensure appropriate licenses are required for each user making modifications.
- (b) Verify the iNote explains the methods used to achieve the integration. This could be API, Command Line Interface (or run process), DDE, OLE, SQL, E-mail integration, or other methods of integration.
- (c) Verify the iNote does not suggest writing directly to the AR System internal database.
- (d) If the setting up of environment variables is necessary, verify the process is specified in the iNote.
- (e) If the setting up of permissions is necessary, verify the process is specified in the iNote. (e.g. permission to access a table in a database or user id access to read/write a file)
- (f) If the integration involves custom AR System objects provided by the vendor, verify these objects function as described in the iNote.
- (g) If the creation or modification of configuration files is necessary, verify the iNote explains the process for the creation or modification of these files. Also, verify the iNote includes a description of the file's use.
- (h) If the creation of AR System objects is necessary for the integration, verify the iNote explains the process for creating these objects.
- (i) If the iNote references any existing objects, verify these objects are either present on the basic AR System installation, or are provided in the distribution. Verify the iNote suggests the user replace sample fields or forms with their own environment equivalent fields or forms.
- (j) If the passing of passwords or user logins is necessary, verify the iNote explains this process.
- (k) If data is transferred to or from the AR System, verify it is transferred correctly, according to the procedure outlined in the iNote. Note: data here refers to entries contained within the AR System structures. The structures themselves are not considered data for the purpose of this test.
- (l) If the integration uses any method or trigger for notification, verify the message is received at the destination, and the information transmitted is accurate.
- (m) If the application is executed from the AR System, verify the application is executed correctly, according to the procedure outlined in the iNote.

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- (n) If the AR client tool is executed from the application, verify it executes correctly, according to the procedure outlined in the iNote. Also if macros are used, verify they are started with the client tool and run as documented. If any parameters are passed to the client tool, verify they are passed accurately.
- (o) If the application creates, modifies or deletes objects, verify these are created, modified or deleted correctly.
- (p) If a process is started from the AR server or client, verify the application considers time-out contingencies.
- (q) If there are any changes to the AR System structures or data, verify these do not adversely impact structures or data within the AR System.
- (r) Verify the iNote does not suggest the user alter the basic functionality of the AR System workflow to accommodate the integration.
- (s) Verify that any services that were stopped for the integration installation are automatically restarted at the completion of the installation.
- (t) Verify the integration does not interfere with any other integrations.
- (u) Verify that an application failure does not hinder the operation the AR System. For example, if the integrated application is misconfigured or becomes non-responding, verify the functions of the AR System are not interrupted.
- (v) If the integration requires any additional software, verify that directions are included for the configuration of this software, e.g. Microsoft Internet Information Server.
- (w) If the application reads and/or writes objects from the AR System (forms, active links, event maps, links, format controls, etc.), verify that the utility retrieves the objects correctly.
- (x) Verify methods for determining if the application is running properly are included in the iNote. For instance, if the application runs as an NT service, verify there is a way to query the process to determine it is functioning correctly. Another example would be an excerpt from the log file of a functioning application.

The following sections detail the individual tests performed for the various types and categories of integration. All of the tests are performed where the iNote specifies the function is used. For example: Where the iNote specifies data is transmitted from the application via DDE to the AR System, we would verify that data is transferred accurately and correctly, by running all the tests in the DDE section below.

5.2.3 Starting a Third Party Application from the user tool (\$PROCESS\$)

These tests are used where the integration starts a third party application from the AR System using the \$PROCESS\$ set fields keyword. If the necessary workflow to start the application is not provided, verify the correct syntax is provided in the iNote.

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- (a) If it is necessary to pass parameters, verify these are passed correctly, and the iNote or referenced documentation explains which parameters can be used.
- (b) If there are any permissions necessary to running the application, verify these are discussed in the iNote.

5.2.4 Starting the Client tool from an application or command line (Command Line Interface)

The following tests are performed, where the Client tool is started from the application, via the command line. These tests are not performed if the commands are hard-coded into the application.

- (a) If login instructions for the client tool are necessary, verify they are provided for in the iNote. (E.g. recording a macro, using -h option, port number, etc.)
- (b) Verify the correct syntax is provided for the client tool.
- (c) If the creation of a macro is necessary, verify the iNote explains the steps to create the macro. Verify the macro functions correctly.
- (d) Verify the correct tool is specified in the iNote for the appropriate platform. (Aruser & runmacro)
- (e) Verify that the iNote specifies the correct location of macro files, if necessary, using the appropriate options.



5.2.5 Dynamic Data Exchange (DDE)

These tests are performed where the integration uses Dynamic Data Exchange to pass data between the AR System client and another application. These tests are not performed if the DDE commands are hard-coded into the application.

- (a) Verify that the iNote specifies the correct DDE service name, topic name, and item name.
- (b) If additional parameters or commands are necessary, verify these are specified.
- (c) Verify the iNote explains the creation of the dde.ini file, and lists all the necessary parameters for this file.
- (d) Verify enabling of report to application is explained in the iNote.
- (e) Verify the transfer method is discussed in the iNote. Verify the appropriate method is used for the size of the data. (Clipboard for small amounts of data, file for larger amounts of data)

5.2.6 Object Linking and Embedding / Automation (OLE)

These tests are performed if the integration uses Object Linking and Embedding. The following tests are not used if the OLE objects are hard-coded into the application.

- (a) Verify that the applications OLE objects are fully documented as it relates to the integration.
- (b) Verify that all OLE automation objects that are necessary for the integration of the application are available within the AR System administrator tool.
- (c) Verify that the OLE automation objects specific to the integration function as described. (e.g. explain what parameters need to be passed)

5.2.7 E-mail Messaging Integration Requirements

These tests are performed if the integration submits or queries information within the AR System.

- (a) Verify the iNote explains setting up e-mail components within the AR System. Verify the function as described.
- (b) If the integration uses e-mail submission of tickets, verify the ticket is entered correctly.
- (c) If the integration uses e-mail query of information, verify the query is returned correctly.

5.2.8 SQL Database Access Integration Requirements

These tests are performed for an integration that uses SQL to access the AR System database from the application, or an external database from the AR System.

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- (a) If the AR System is used to write or read from an external database, verify the correct instructions / SQL syntax is given.
- (b) If the application has permission to query the AR System database, verify the process is clearly and accurately documented and works as described. See also 5.2.2 (c).
- (c) If the application accesses the AR System, or the application is accessed from within the AR System using ODBC drivers, verify the process for configuring the drivers is accurately and completely documented.

5.2.9 Other Integration

These tests are for an application that exchanges information with the AR System using files. This could be via the import tool, or the report to file process.

- (a) If the application reads a file generated from the AR System, verify the file is read correctly.
- (b) If the application writes to a file that can be imported into the AR System, verify that the file is written accurately, and the format conforms to that understood by the AR System.
- (c) If the application uses XML import or export, verify the process for importing and exporting the definitions is fully documented. Verify any provided XML schemas are readable by the AR System.
- (d) If the integration uses the Web Services component of the AR System, verify that the AR System is not adversely affected if the 3rd party application is not available.

5.2.10 Network & Systems Management

These tests are carried out for applications that perform Network or Systems Management tasks, and submit tickets to the AR System, based upon system or network failures.

- (a) Verify that the console will close tickets in the AR System, when the console message is cleared.
- (b) Verify that tickets closed in the AR System, are deleted from the console.

5.2.11 Application Programming Interface (API) Integration Requirements

These tests are performed, where the application uses the ARS API interface, to control the AR System. This section applies to integrations written using the C language and Java API's

- (a) If the integration interacts with the notification system, verify this functions correctly.

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- (b) If the application controls functions of the AR System, (such as starting/stopping the AR server, adding or removing servers from clients) verify that all these control functions execute correctly, and no data loss or data corruption occurs.

5.2.12 AR System Plug-in Requirements

These tests are performed, where the application uses the AR System plug-in architecture.

- (a) Verify the plug-in functions correctly.
- (b) Verify that the plug-in name is unique.
- (c) The integration note needs to explain that the AR plug-in service needs to be running when performing the integration.
- (d) For AREA plug-ins, the integration note needs to clearly explain that only one AREA plug-in can be running at any time.
- (e) For ARDBC plug-ins, the integration note must fully document what capabilities the user has access to in the external data source, e.g. if the plug-in allows the user to get, set, create and delete entries, this must be fully documented.

5.3 Recommendations

The following are recommendations and the status of each will not have any bearing on the overall test result. These are highly recommended by BMC Software to ensure the applications are easy to use. These tests will be verified if time permits during the testing.

- If the integration is pager based, verify the notification does not allow the character limit for the paging service to be exceeded. Verify errors due to oversize pager messages are handled gracefully.
- Verify the application does not start too many copies of the client tool, such that performance is reduced.
- If the integration uses e-mail notification, verify the message does not start an infinite loop, or produce a large number of e-mails. This could be caused by faulty e-mail addresses, where the message is returned from the destination, and the application sends out an error message.
- Verify that the integration will not allow large numbers of tickets to be created such that the performance of the AR System degrades.
- If the integration is pager-based, verify that the integration does not allow so many messages on the paging network to be sent that it “spams” the paging network.
- Verify that the application does not leak memory during normal usage in the course of the testing cycle.

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- Verify that the application cleans up any temporary files that are created specifically for the integration.
- If any files are created by the application, for the integration, verify these are kept within manageable sizes.
- Verify the application will transfer dates correctly with respect to the year 2000. The following dates will be verified: December 31, 1999; January 1, 2000; January 10, 2000; February 29, 2000; March 1, 2000; October 10, 2000; January 1, 2001; January 2, 2001; February 29, 2001 (nonexistent); January 1, 2030; January 2, 2034; January 19, 2038.
- If custom software is installed for the integration, verify this software is fully uninstallable, and that the process for uninstalling is described in the iNote. The software must remove all files, folders and registry entries added during the install process. If files, folders or registry entries are left behind after the software is uninstalled, we need to know which files, folders or registry entries, and the reason for leaving this item behind.

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6 Special Test Exceptions

Occasionally, you may consider that your product will not pass certain tests, and that the functionality is not in the design or you are not able to rectify the problem. This applies where inconsistencies between the iNote and the actual functionality are out of your control. An exception could be functionality in the AR System, which is considered a bug, and has not been rectified as yet.

If, after reviewing the test specifications, you feel that your integration warrants a waiver, you can apply for a waiver to BMC@Interek.com. Once received, Intertek will communicate this request to BMC Software, who will respond within 5 working days.

Test exceptions will be appropriately marked in the final report, and will not indicate whether the tests meet validation.

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Have you checked for these?



7 Top Ten Reasons for resubmission.

This section lists some of the more common reasons that Technology Alliance members have had to re-submit their integration. This list will be updated on a regular basis. We have included the appropriate section of the test guide that corresponds to the particular reason.

1. The iNote is missing steps required to complete the integration. For example, steps may be missing for configuring the Technology Alliance member application. A good method for ensuring all the steps are included would be to test the iNote by someone other than the person who wrote the iNote. See section 5.2.1 (b) III.
2. The steps in the iNote do not correspond with the AR System or the Technology Alliance member application. As with reason number one, having the integration performed by someone other than the author of the iNote, increases your chances of passing this test. See section 5.2.1 (b) II.
3. The iNote does not explain the process for creating AR System objects that are necessary for the integration. See section 5.2.2 (h).
4. Data was not transferred correctly to the AR System. In some cases this could be a result of incorrect configuration in the AR System or the Technology Alliance member application. In other cases, the Technology Alliance member application is transferring user ID's to the Technology Alliance member application that do not correspond with the correct users in the AR System. If it is assumed that specific data (i.e. users) exist on the AR System, the integration must either provide the data, or instruct the user to create the data. See section 5.2.2 (k).
5. The AR System client tool does not start when launched from the Technology Alliance member application. In many cases this is a result of an incomplete or incorrect configuration. Verify that macros, parameters, and login instructions function as documented. The iNote must give the user correct instructions for configuring the Technology Alliance member application to launch the user tool. See section 5.2.2 (n).
6. The iNote does not explain the steps to set up permissions. If it is necessary to create or modify permissions relating to the AR System, or the Technology Alliance member application, the iNote should explain the process for making these modifications. An example is when ARAdmin needs to be dbowner of a third-party database. See section 5.2.2 (e).

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7. The Technology Alliance member application does not start correctly. When starting the Technology Alliance member application from the user tool, the iNote must instruct the user to enter the correct path and syntax for starting the Technology Alliance member application. See section 5.2.3 (a).
8. The iNote refers to existing objects that are not available. The objects referenced in the iNote need to exist in the basic AR System or be provided in the distribution. Document sample objects and explain changes in detail. See section 5.2.2 (i).
9. The iNote contains incomplete system requirements. Any hardware necessary for the integration must be included in the iNote. Also versions specified are not correct according to the product supplied. It is important to indicate ALL system requirements prior to submission. See section 5.2.1 (a) I.
10. The iNote does not explain the steps to configure the application. For completeness, configuration on the AR System, and the Technology Alliance member's application must be explained in full detail. See section 5.2.2 (g).

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Appendix A – Technology Alliance Member Questionnaire

The purpose of this section is to provide contact information about your company and your product.

Contact Information

Company Name	
Address	
City, State, ZIP	
Main phone # and ext.	
Company website URL	
Contact person for test results <ul style="list-style-type: none">• Name and Title• Tel:• Fax:• Email:	
Technical contact <ul style="list-style-type: none">• Name and Title• Tel:• Fax:• Email:	

Product Information

Product Name and version	
AR System version supported	
Hardware requirements for integration	
Operating system requirements for integration	
Description of product	

Appendix B - Integration Tips

The following tips are designed to assist you in ensuring your iNote conforms to the standard required by the validation tests. We suggest that your iNote is as clean, complete, and concise as possible for your potential customers. Therefore we encourage you to consider the following tips, where appropriate, in your iNote.

General

- Ensure the iNote lists all the steps necessary to carry out the integration.
- Don't assume that the user will know all of the steps.
- If the integration assumes knowledge of certain applications or techniques (e.g. SQL knowledge, Visual Basic) this must be clearly stated in the iNote.
- Ensure that the system requirements list ALL hardware and software requirements.
- If the integration requires additional documentation, ensure this is referenced where necessary in the iNote.
- Verify that any additional documentation that is referenced is also complete.
- If the integration involves sending or receiving data, this needs to be explained in the iNote.
- The iNote needs to explain the methods used to integrate the products. (E.g. API, DDE, Command Line Integration)
- If the integration uses existing AR System objects, these must be specified in the iNote. Don't assume that all environments will contain the same AR System objects.
- If the integration uses other objects present in Remedy applications, these applications must be specified in the System Requirements section, e.g. ARS Help Desk
- Where active links or filters are used, the integration needs to describe the firing conditions and actions.
- Where active links or filters are used, the iNote needs to include the specific syntax and screen shots. For example, distinguish between a Run Process action and a Set Fields action of \$PROCESS\$.

The following sections include tips for specific methods of integration.

Application Programming Interface Integration

- If the application and the AR System can reside on two different machines, the iNote needs to explain the method used to communicate between the two machines.

Command Line Interface Integration/Run Process

- If the syntax for starting the user tool is not hard-coded into the application, this should be explained in the iNote.
- The Command Line Interface syntax for the User tool needs to be modifiable to allow for the AR System installation being contained in non-default directories.

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- If the AR System objects are not provided for starting the Technology Alliance member's application from within the AR System, ensure that all of the syntax necessary to the integration is provided in the iNote.
- Ensure the integration explains whether the Windows or UNIX user tools are supported.

Dynamic Data Exchange (DDE)/Object Linking and Embedding (OLE)

DDE

- If the DDE commands are not hard-coded into the application, ensure that the correct parameters (Service name, topic name, commands, transfer method, etc.) are provided in the iNote.
- If the DDE commands are not hard-coded into the application, the iNote needs to explain whether the application is a DDE client, server or both.
- If the DDE commands are not hard-coded into the application, the iNote needs to include code samples. (These can go into an appendix if they are long.)

OLE

- If the OLE methods are not hard-coded into the application, the methods and objects need to be included in the iNote.
- If the application exposes objects and methods that are available to the AR System, these must also be documented in the iNote.

SQL Integration/ODBC

- The application should not directly write to the AR System database, as this could result in data corruption.
- If in the integration it is necessary for the AR System to read or write to another database, this must be clearly documented.
- If the application uses ODBC to communicate with the AR System, the configuration of the drivers must be clearly documented.
- If the application could write to the AR System database, the iNote must recommend that the user not write directly to the AR System database.
- If the application uses ODBC, the iNote needs to explain whether the native database drivers or the AR System drivers are used.

E-Mail Integration

- If the integration communicates with the AR System via email submission or notification, ensure that the process is fully explained.

Other

- If the integration communicates using files created or read by the AR System (reports, importing, etc.), ensure that the process for configuring the information is fully documented.

Network & Systems Management

- If the application allows the user to submit tickets from the management console, ensure the process for mapping fields between the two applications is documented in full.

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- If the application controls or monitors the AR System, ensure the configuration process is fully documented.

Appendix C – Intertek Targeted Test Services for the Developer Community



Why the service was developed and the benefits:

Intertek’s experience with compliance programs has been constant since 1995. To date Intertek has designed, customized, administered and maintains more 3rd party compliance programs than any other test company. In doing so we have closely watched the evolution of these programs. We now understand the industry challenges with the release of most products. It’s amazing but true, 90% of first time compliance program submitters fail the test criteria. And even more amazing, all tests to be executed are available to the developer and completely detailed (no subjective tests). Furthermore, Intertek provides a top ten failure list for all our programs to help developers steer clear of typical problems encountered during certification testing. The time for finding high severity problems in a product **IS NOT** during certification testing. Why does this happen? We suspect it’s a variety of reasons. 1. Developers don’t have the time or resources to perform all the testing that is needed, 2. With the technology ever changing, those testing the product aren’t as familiar with the platform as they could be if they had training and/or worked with multiple similar technologies, 3. Many organizations don’t pay as close attention to boundary and error handling testing, which is as important as functional testing, 4. Many organizations don’t pay close attention to process tracking across builds, i.e. something that passed a test yesterday may not today if the code base changed, etc.

To solve this challenge, Intertek has designed the Target Test Service for developers. This allows the developer to utilize Intertek’s service for early testing, to uncover those problems that may fail submission prior to formal submission of the application. This service is a quick turnaround test and can be utilized multiple times, as requested, throughout the development process. This service helps to ensure success during first time submissions. Our pricing model for this service is extremely cost effective. Although the service is now in progress, more details about this service will be available on Intertek’s web site at www.qpqa.com in the coming weeks.

For more information or to schedule your product for a Target Test, contact us at (925) 485.5620.

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Appendix D – Contact Information

To submit software and iNotes, plus any related documentation, or for any other questions, please contact us at:

Intertek Testing Services NA, Inc
BMC Validation Lab
450 Main Street, 2nd floor
Pleasanton, CA 94566

Phone: (925) 485-6175
Fax: (925) 484-1773

E-mail: BMC@Intertek.com

Please also visit our web site at: www.qpqa.com

For further details about the BMC Software MarketZone Program or the Action Request System, please contact BMC Software at:

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1030 West Maude Avenue
Sunnyvale, CA 94085-2810
Phone: 408-571-7000
Fax: 408-571-7001
E-mail: TechAlliances@Remedy.com
Web: www.bmc.com, follow the Partners link