**Research Administrative Management System (RAMS)**

**R1605 Installation & Back-out Plan**

**Pre-Production Environment**



**Department of Veterans Affairs**

**October 2016**

Revision History

| Date | Version | Description | Author |
| --- | --- | --- | --- |
| 10/07/2016 | 1.0 | Base Version for RAMS release 1605 | Booz Allen Hamilton |

Artifact Rationale

The Installation & Back-out Plan defines the ordered, technical steps required to install the product, and if necessary, to back-out the installation to the previously installed version.

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# Introduction

This document provides installation instructions for Research Administrative Management System (RAMS) R1605. The Installation & Back-out Plan includes detailed installation instructions, the criteria for determining if a back-out is necessary, the authority for making that decision, the order in which installed components will be backed out, and authority for acceptance or rejection of identified risks.

# Deployment Information & Prerequisites

## Platform Installation and Preparation

The RAMS R1605 release consists of the following installation files to be deployed to the SharePoint 2013 Server on ***vaphiramcms40.vha.med.DNS***, as well as database changes referenced in section 3.

All files referenced or embedded in this document may also be found in RTC in the “RAMS CM” stream under *R1605\code changes*.

## Installation Files

1. irb-applications-general.html
2. dynamicGeneration.js
3. dynamicMembers.js
4. pace.js
5. RAMS\_tools.js
6. bootstrap.min.css
7. pace-theme-loading-bar.css
8. styles.css
9. VHA form 10-0493\_Authorization for Use Release of IIHI for VHA Research (9-2015).pdf

## Download and Extract Procedure

N/A

## Database Creation

N/A

## Installation Scripts

N/A

## Cron Scripts

N/A

## System Configuration

N/A

## Database Tuning

N/A

# Installation

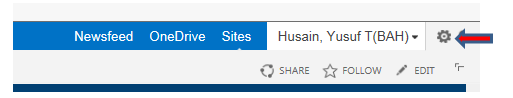
## SharePoint

A summary of the installation files and their destination path/folders is shown in the table below:

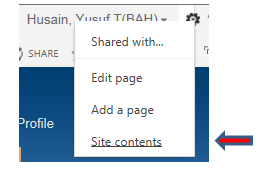
**Table 3.1: SharePoint Files**

|  |  |  |
| --- | --- | --- |
| File/Component | Destination | Add or Update? |
| irb-applications-general.html | SiteAssets | **Update** |
| dynamicGeneration.js | SiteAssets/js | **Update** |
| dynamicMembers.js | SiteAssets/js | **Update** |
| pace.js | SiteAssets/js | **Add** |
| RAMS\_tools.js | SiteAssets/js | **Update** |
| bootstrap.min.css | SiteAssets/css | **Update** |
| pace-theme-loading-bar.css | SiteAssets/css | **Add** |
| styles.css | SiteAssets/css | **Update** |

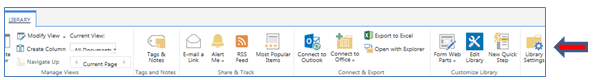
1. Navigate to “Site contents”.
   1. https://DNS ppd.ram.msp.DNS /sites/IRBApplications/SitePages/Home.aspx
   2. Click the gear icon on the SharePoint ribbon to access “Settings”.



* 1. Click the “Site contents” option item. The “Site contents” SharePoint page will load.



1. Verify “Version History” is enabled.
   1. Navigate to the “Library” tab in the SharePoint banner.
   2. Select “Library Settings”.



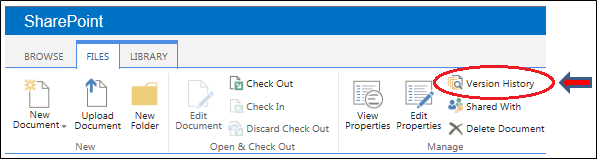
* 1. Select “Versioning Settings”.
  2. Under “Document Version History”, verify the “Create major versions” radio button is selected. Then select OK.



1. Confirm “Versioning” is enabled.

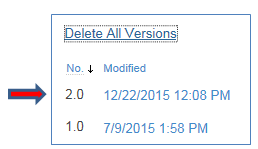
Foreach filelisted in Table 3.1, perform the following:

* 1. Select the file to highlight it.
  2. Click the “FILES” tab on the SharePoint ribbon at the top of the page.
  3. From the “Manage” group, select “Version History”.



* 1. Confirm that “versioning” is enabled and that you can see the version history for the current file.

Example:

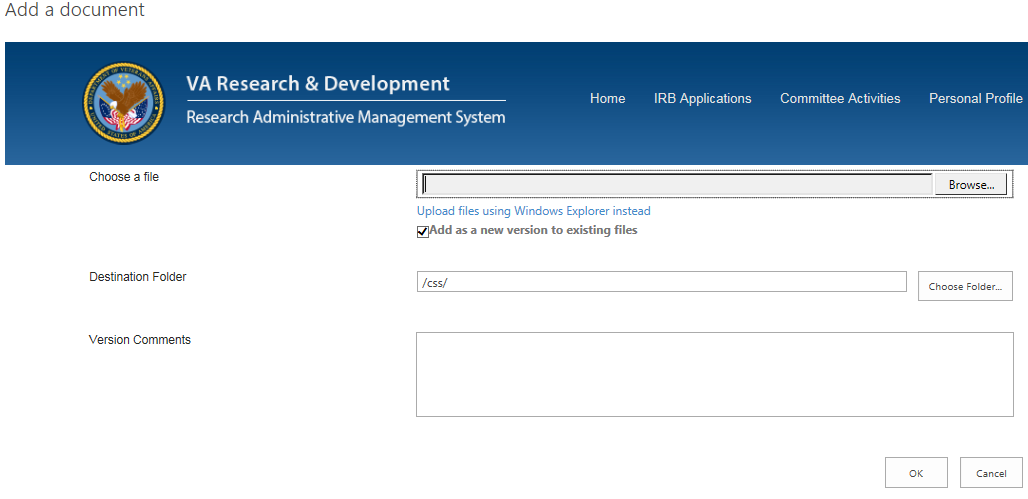


1. Upload files to SharePoint.
   1. Navigate to the “js” folder within Site Assets:



* 1. Select the “Upload Document” button from the SharePoint ribbon at the top of the page. It will be under the “Files” tab on the SharePoint ribbon. A popup will appear titled “Add a document”.





* 1. Click the “Browse” button and navigate to the *R1605\code changes* directory in your “RAMS CM” repository workspace sandbox.

(Example sandbox path: C:\sandboxes\RAMS CM\Releases\1605\code changes)

* 1. Select the first “.js” file and click “Open”
  2. Confirm the “Destination Folder” is as listed in Table 3.1.
  3. Add the appropriate comments.
  4. Scroll down and click the “OK” button. The popup box for uploading the document will disappear. You will be redirected back to the SharePoint folder.
  5. Confirm that you see the added file.
  6. Repeat steps b) through h) for the remaining “.js” files.
  7. Navigate to the ”css” folder within Site Assets:
  8. Repeat steps b) through h) for each “.css” file listed in Table 3.1.
  9. Navigate to the Site Assets folder:
  10. Repeat steps b) through h) for each “.html” file listed in Table 3.1.

**Table 3.2: SharePoint Libraries**

|  |  |  |
| --- | --- | --- |
| Library Name | Location | Add or Update? |
| Shared Documents | https://DNS ppd.ram.msp.DNS /sites/IRBApplications/Shared%20Documents/Forms/AllItems.aspx | **Update** |
| Form Templates | https://DNS ppd.ram.msp.DNS /sites/IRBApplications/ | **Add** |

1. Create/Modify SharePoint Libraries.
   1. Navigate to the “Shared Documents” library as noted in Table 3.2 and add the columns listed in Table 3.3.

Library >> Library Settings >> Columns >> Create column

**Table 3.3: Columns to Add to SharePoint Libraries**

|  |  |  |
| --- | --- | --- |
| Column Name | Column Type | Details |
| DateApproved | Date and Time |  |
| DocumentType | Choice | **Audit, Case Report Forms, COIs, CVs, Device Information, HIPAA, ICF, Investigator Brochure/Package Insert, Letters/Correspondence, Protocol, Questionnaires/Surveys, Recruitment Material, VA Form 10-9012, Waiver Requests, Other** |
| Status | Choice | **Approved, Changes Requested, Submitted, Under Review** |

* 1. Navigate to the IRB Applications site and create a document library named “FormTemplates”.

Site Settings >> Site Contents >> Add an app >> Document Library >> Name: FormTemplates >> Create

* 1. Upload VHA form 10-0493\_Authorization for Use Release of IIHI for VHA Research (9-2015).pdf to the library.

Files >> Upload Documents >> Browse >> <select file> >> Open >> OK



1. Enable Versioning.
   1. Library >> Library Settings >> General Settings >> Versioning Settings >> Create Major Versions >> OK

## Java/Tomcat

N/A – This release does not require updates to the Tomcat Server.

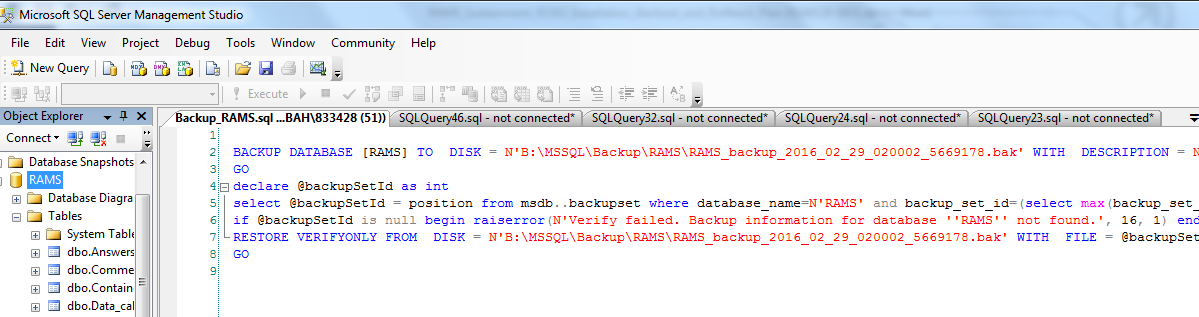
## SQL

1. Perform full backup of RAMS database.
   1. Open Microsoft SQL Server Management Studio on **redacted**.
      * Search Microsoft SQL Server Management Studio in the Windows Start Menu
      * Click on the program to open
   2. Connect to the SQL Server instance.
      * A “Connect to SQL Server” window will appear.
      * Select “Database Engine” as the Server type.
      * Select the correct instance **redacted**.
      * Select the correct login credentials with admin rights.
      * Click the “Connect” button.
   3. Perform a full ad-hoc backup of the RAMS database.
      * Verify sufficient disk space is available in the directory where backup will be allocated to complete the backup task.
      * Open the file “Backup\_RAMS.sql”, embedded below, in a new SSMS query window to complete a full backup of the original RAMS database.



**Note: File path must be modified in two places.**

* + - * Modify the backup file path “------/------*\RAMS.bak*” to appropriate target location in two places. (See screenshot below)



* + - * Click the “Execute” button at the top of the toolbar.
      * You will see the messages “*100 percent processed*”, “*BACKUP DATABASE successfully processed xxx pages in xxx seconds*.” and “*The backup file is valid*” under the “Messages” box.
      * You will also see the message “*Query executed successfully.*” at the bottom of the query window.
  1. Verify the completed backup by performing a rough order of magnitude comparison of the backup file size with the most recent daily database backup.

1. Open a new query window and execute the below statements to verify number of records for the FormVersion 53 in the “Contained\_Forms” table.

USE RAMS

GO

Declare @RootFormID varchar(20)

select @RootFormID = RootFormsID from Form\_Versions where FormVersionsID = 53;

Select \* from Contained\_Forms where containerID = @RootFormID;

**Note: The above statement should return 14 rows. If 14 rows are not returned please contact RAMS DBA.**

1. Open a new query window and execute the below statement to delete HIPAA AND ICF FORM records from “Contained\_Form” table.

USE RAMS

GO

Delete from Contained\_Forms where ContentID in ( select FormsID from Forms

where Title like '%HIPAA%' or title like '%Informed%') and containerID in

(select RootFormsID from Form\_Versions where FormVersionsID = 53)

* 1. Refresh the database by right clicking on the database name from the Object Explorer box and choose “Refresh”.
  2. Execute the below statement to verify the number of records after deletion of two records associated with FormVersionID 53.

USE RAMS

GO

Declare @RootFormID varchar(20)

select @RootFormID = RootFormsID from Form\_Versions where FormVersionsID = 53;

Select \* from Contained\_Forms where containerID = @RootFormID;

**Note: The above query should return 12 records. Please verify and confirm with RAMS DEV Team.**

1. Execute the below statement to verify the record currently exist for Question ID 13498 in the “Forms\_Question” table of “RAMS” Database.

USE RAMS

GO

SELECT [FormsQuestionsID]

,[FormsID]

,[QuestionsID]

,[FormSequencePosition]

,[RequiredPredecessorAnswersID]

,[RequiredPredecessorQuestionsID]

FROM [dbo].[Forms\_Questions]

where questionsid= 13498

**Note: The above query should return one row. Please verify the record values for each columns. Make sure expected values are as follows FormsID=480, QuestionsID=13498 and FormSequencePosition=5.**

**Note: If resultset values are found to be other than expected by the above query then DO NOT proceed, please contact RAMS Dev Team.**

1. Execute the below statement to change the value of FormSequencePosition column from 5 to 6 for this particular questionID 13498 and FormsID 480.

USE RAMS

GO

Update [RAMS].[dbo].[Forms\_Questions]

set FormSequencePosition = 6

where formsID = 480 and questionsid =13498

* 1. Refresh the database by right clicking on the database name from the Object Explorer box and choose “Refresh”.
  2. Run the select statement to verify the record has been updated.

USE RAMS

GO

Select \* from [dbo].[Forms\_Questions] Where formsID = 480 and QuestionsID =13498

**Note: Make sure value for FormSequencePosition column is 6.**

1. Insert a new question record into Questions Table.

USE RAMS

GO

INSERT INTO [dbo].[Questions]

([QuestionHyperText]

,[OtherOptionHyperText]

,[HelpHyperText]

,[ResponseFormatsID])

VALUES

('Co-PI Location;'

,NULL

,NULL

,7)

* 1. Refresh the database by right clicking on the database name from the Object Explorer box and choose “Refresh”.
  2. Execute the below statement to verify the new record has been inserted in the table.

Use RAMS

Go

SELECT \* FROM dbo.questions

WHERE QuestionHyperText LIKE 'Co-PI Location;'

**Note: The above query will return one row with values as follows: QuestionHyperText= 'Co-PI Location;', OtherOptionHyperText= NULL, HelpHyperText= NULL, ResponseFormatsID=7.**

1. Find the last inserted identifier column value from Questions Table previously inserted in step #7. That value will be part of insert statement into Forms\_Questions Table.

USE RAMS

GO

declare @QuestionID Int

select @QuestionID = (select top 1 (questionsid) from [dbo].[Questions] order by questionsid desc)

Insert into dbo.forms\_questions (FormsID, QuestionsID, FormSequencePosition)

values

(480, @QuestionID, 5)

* 1. Refresh the database by right clicking on the database name from the Object Explorer box and choose “Refresh”.
  2. Execute the below statement to verify the inserted value into Forms\_Questions table.

Use RAMS

go

select \* from forms\_questions

where formsid =480 and FormSequencePosition =5

**Note: Make sure the above query return one row.**

1. Execute the below statement to add new answer record into Answer table related to the particular QuestionID 13635.

USE RAMS

GO

INSERT [dbo].[Answers] ([QuestionsID], [Value], [SequencePosition]) VALUES (13635, 'N/A', 11)

* 1. Refresh the database by right clicking on the database name from the Object Explorer box and choose “Refresh”.
  2. Execute the below query to verify the inserted value into Answer table.

Use RAMs

Go

Select \* from dbo.answers where questionsID = 13635 and value = 'N/A'

**Note: Make sure the query returns one row with expected values as follows: QuestionID=13400, Value=N/A, and Sequencpositon11 for the new answerID.**

# Smoke Test

After successful completion of the deployment steps above, EO will alert the RAMS-Sustainment team that the environment is ready for smoke testing. A RAMS-Sustainment team member will then perform post-deployment testing. Testing will verify that the high level functionality of the system is working as expected and that any new changes did not affect the current functionality in an unexpected way.

At a high level smoke testing will include:

* logging into the application
* starting an IRB application
* verifying radio button, checkbox, text field, and save/cancel buttons work
* submitting an application, clicking on the Committee Activities Page and Local Site Administrator Control Panel Page
* accessing previously submitted data to view front end functionality

Any other specific testing, will be performed on an ad-hoc basis.

# Back-out

Back-out pertains to a return to the last known stable operational state of the software and platform.

## Back-out Strategy

Back-out strategy defines how to revert the software back to a previous version in the event the new release functions improperly. The back-out strategy for this installation is to restore the SharePoint files using SharePoint versioning and to run SQL scripts to back-out the database changes.

## Load Testing

N/A

## User Acceptance Testing

The RAMS Sustainment Team will perform validation testing to ensure the deployment was successful.

## Back-out Criteria

If the release cannot be successfully deployed or post-deployment validation fails, the VA Project Manager responsible for RAMS will be notified and asked to approve a back-out of the release.

## Back-out Risks

N/A - There are no known back-out risks.

## Authority for Back-out

The VA Project Manager has sole authority to approve a back-out of the release.

## SharePoint Procedure

To back-out SharePoint changes, files currently stored on SharePoint will have to be restored. This includes six files. A summary of these files/components and their current folders/locations is shown in the Table 4.6 below:

**Table 4.6 SharePoint Files to Restore**

|  |  |
| --- | --- |
| File/Component | Destination |
| irb-applications-general.html | SiteAssets |
| dynamicGeneration.js | SiteAssets/js |
| dynamicMembers.js | SiteAssets/js |
| RAMS\_tools.js | SiteAssets/js |
| bootstrap.min.css | SiteAssets/css |
| styles.css | SiteAssets/css |

1. Open the “Site Assets” folder by clicking on the folder icon for “Site Assets” (located in the “Site contents” folder). The “Site Assets – All Documents” page will load. Open the “js” folder.
   1. Select the second file under its Version History (the file that existed before the most recent changes) from the list for the following files.
      * + dynamicGeneration.js.
        + dynamicMembers.js
        + RAMS\_tools.js
   2. Click on the date and time stamp for that file under the “Modified” column. Dropdown will appear.
   3. Select the down arrow and select the option “Restore”.
2. Open the “Site Assets” folder by clicking on the folder icon for “Site Assets” (located in the “Site contents” folder). The “Site Assets – All Documents” page will load. Open the “css” folder.
   1. Select the second file under its Version History (the file that existed before the most recent changes) from the list for the following files.
      * + bootstrap.min.css
        + styles.css
   2. Click on the date and time stamp for that file under the “Modified” column. Dropdown will appear.
   3. Select the down arrow and select the option “Restore”.
3. Open the “Site Assets” folder by clicking on the folder icon for “Site Assets” (located in the “Site contents” folder). The “Site Assets – All Documents” page will load.
   1. Select the second file under its Version History (the file that existed before the most recent changes) from the list for the following files.
      * + irb-applications-general.html
   2. Click on the date and time stamp for that file under the “Modified” column. Dropdown will appear.
   3. Select the down arrow and select the option “Restore”.
4. Confirm that a new version has been created for the files (reflecting the reversion).

## Java/Tomcat Procedure

N/A – The Tomcat server was not updated as part of this release, therefore no back-out is required.

## SQL Procedure

Follow these steps to back out changes associated with this deployment.

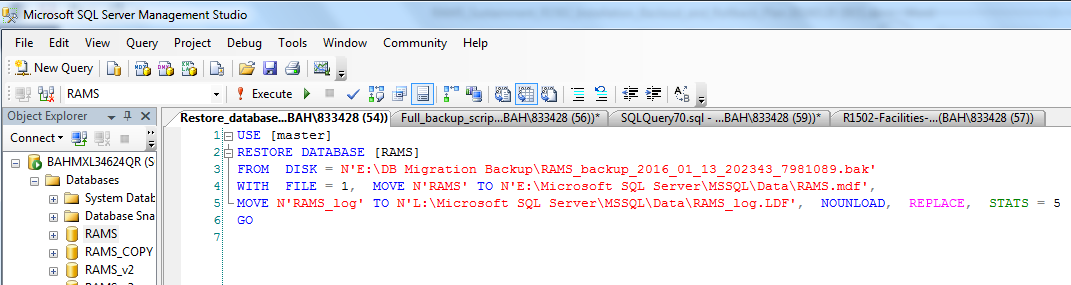
1. Disconnect all open sessions from the RAMS database.
2. Open the file ‘RestoreDatabaseRAMS .sql´, embedded below, in a new query window.



**Note: Modify the location path in three places within the script to reflect the proper location of the following items:**

* 1. Backup file location.
  2. Data file location.
  3. Log file location.

1. Right click within the query window and choose “Connection”. Next, choose “Change Connection”. A “Connect to Server” window will appear.
   1. Select “Database Engine” as the Server Type.
   2. Select the correct instance name for Server Name: vaphiramsql41.
   3. Click the “Connect” button.
   4. Click inside the query window of the script to confirm the settings.



1. Click the “Execute” button at the top of the toolbar.
2. Make sure script executed successfully.
   1. You will see the following messages:
      * “Processed xxx pages for database ‘RAMS’, file ‘RAMS’ on file 1.”
      * “Processed xxx pages for database ‘RAMS’, file ‘RAMS\_log’ on file 1.”
      * “RESTORE DATABASE successfully processed xxx pages in xxx seconds” under the “Messages” box.
      * “Query executed successfully.” at the bottom of the query window.
3. Refresh SQL Server Instance.

End