Integration Control Registration (ICR) Guide

October 31, 2022 | VistA Office
Version 1.1

U.S. Department of Veterans Affairs
Office of Information and Technology

Document Change Control Table

Version	Release Date	Description	Author
1.1	10/31/2022	Minor updates made to content. Template updated in adherence to OIT standards.	VistA Office
1.0	04/06/2021	Initial Version	VistA Office

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1. Overview

1.1. Purpose

The Integration Control Registration (ICR) Guide was created by the Veterans Health Information Systems and Technology Architecture (VistA) Office (VO) to provide guidance to product teams who develop a product containing a reference to a software component outside the product's application boundary (namespace). ICRs are required to document integration agreements between the custodial package owning the software component and the subscribing package wanting to access it. The VistA Office Change Management Pillar provides an ICR Team to oversee the management of ICR agreements.

1.2. Target Audience

The target audience is any product team responsible for developing, enhancing, or maintaining a product interfacing with VistA, to include:

- VA Office of Information and Technology (OIT) Class 1 product teams
- VA OIT field offices and Class 2 and 3 field product teams
- Business-partners external to VA (Class 3) product teams
- Product team includes individuals with roles such as Product Manager, Developer, Analyst, Support personnel, Software Quality Assurance (SQA) analysts, and Stakeholders.

1.3. Assumptions

The following assumptions are made throughout this document:

- The Massachusetts General Hospital Utility Multi-Programming System (MUMPS) programming language will be referred to as *M code* in this document.
- The terms *Product* and *Package* are synonymous in this document. Historically, *Package* is used when the *Product* is based on M code and a Package Patch is used to distribute the Product.
- The term *Package* is used throughout VistA file structures that manage patch distribution and document integration agreements in FORUM. For consistency, the term *Package* is used regarding ICRs in this document.
- Custodial Package is the official designation for the name of the Package that *owns* the components specified in an ICR, and responsible for supervising and guarding the external usage of the component.
- Custodian is the official designation for the developer Subject Matter Expert (SME) entrusted with the custody of the Custodial Package's components.
- Documents referenced in this guide can be accessed via the References and Related Links section of this document.

1.4. Background

VistA software has over 150 unique Class 1 Packages with Released Patches containing software components owned by each Package. The package releasing software components within their defined application boundary is the *Custodial Package*. The Custodial Package's software components can be used by another package called the *Subscribing Package*; that is, if the custodian developer SME approves the access. The approved access to the software component is defined in an integration agreement.

The authoritative source for integration agreements between two Packages are ICRs stored in the INTEGRATION REFERENCES file (#50055.1) in FORUM. The external references between two or more packages are documented in over 7300 ICRs in FORUM.

The VA enterprise goal is for **all external interfaces with M code packages to have approved ICRs documenting the integration agreements between the packages.**

For Products without M code patches (e.g., web, GUI, Middleware applications), there must still be an ICR approval for the access to VistA data using remote procedure calls.

Additionally, if any Product's access method to VistA does not respect VistA Authorized Boundaries, then the Product's access method must be reviewed and approved by the following two groups:

- The VistA Office Review Board (VORB) at OIT_DSO_SPM_HEALTH_VISTA_OFFICE_VORB@va.gov.
- VA OIT Infrastructure Dev. & Doc. at InfrastructureDevDoc@va.gov

2. Package Class and ICRs

OIT Software Product Management (SPM) uses the word Product to define those Products managed by SPM. Each Product is associated with a Product Line. Most Products managed by SPM are primarily Class 1 Packages.

Packages are categorized as Class 1, Class 2, or Class 3 in the PACKAGE File (#9.4) in FORUM, which is the authoritative source for defining package boundaries and Package Class. For more information about Package classes, please refer to the VistA Package/Namespace Setup Guide link provided in the [References and Related Links](#) section of this document.

If the Package CLASS Field is Class 1, then the package's patches can be distributed out of FORUM after meeting:

1. All software standards and conventions required by the Standards and Conventions Workgroup (SAC WG), and
2. SPM Software Development Lifecyle requirements.

Refer to the *M Programming Standards and Conventions SAC* document link found in the [References and Related Links](#) section of this document.

For all Package classes, before a patch can be tested in a pre-production or production environment, the patch routines must document all external references according to M code programming standards by referencing the ICR number matching the external reference. For Class 1 patches, this is before entering Initial Operating Capabilities (IOC) testing. For non-Class 1 patches, this is before submitting an [Innovation and Development Request Portal](#) (IDRP) request for Code Review.

2.1. Class 1 Package ICRs

Historically, ICRs document agreements between two or more Class 1 packages. An ICR agreement between Class 1 packages is a *contract*. The contract, once established, means:

- The Custodial Package **will not** make a change to the ICR software component which is not backward-compatible with the existing use of the software component by the subscribing package.

- If the Custodial Package must change the ICR, thus impacting the current Subscribing Package, then the Custodial Package must coordinate the change so both Packages can apply coding changes and coordinate delivery of changes for distribution. Upon successful coordination between the Custodial Package and subscribing Package developers, the ICR will be changed accordingly.

- If the Subscribing Package needs to change the ICR, an ICR Request is used to share a mockup of the ICR changes needed. The Developer SMEs for the Custodial Package and Subscribing Package evaluate the request. If the Package SMEs approve, the ICR is changed accordingly.

- There are cases when a custodian developer SME is no longer available to review and approve an ICR request. In this case, the Product Line Manager responsible for the Custodial Package will be asked to provide a custodian developer SME to review the ICR. If a SME is still not available, then the ICR Team will consider approving subscription with a *Document Only* designation in the Subscribing Details of the ICR with an explanation of why the Package needed access to this ICR. Document Only approvals are appropriate if the request is reasonable and/or based on existing Package subscriptions to the ICR.

For Class 1 Packages, ICRs must be approved before the product goes to Initial Operating Capability (IOC), which means ICRs must be approved before the patch is installed in a production environment for User Acceptance Testing (UAT). There are two ICR review points before the Class 1 patch goes to IOC:

- The VistA Primary Developer Review Checklist must be completed which includes ICR steps related to the request and approval for all new or updated Integration Control Registrations (ICRs) before the patch is sent to SQA. The following steps have been added to the Primary Developer Review Checklist:

    - Utilize the ICR Look Up Tool at ICR Lookup (va.gov) to find ICRs that match each routine's external reference. Use the ICR list returned and look for the best match from 'Supported' ICRs first, 'Controlled Subscription' ICRs second, and 'Private' ICRs third.
    - Request new ICR or updates to an existing ICR by submitting an ICR Request Intake Form.
    - Check for activation, ICR updates added and/or subscriber added in the FORUM ICR, for each ICR request, before the patch is sent to SQA.
    - Refer to the OIT DSO SPM Health VistA Office Integration Control Registrations (icrs@va.gov) mail group for any questions related to ICRs.

- The patch must also pass the OIT SPM SQA review process which validates the accuracy and status of ICRs documenting interface access between Products.

The ICR review step includes an M code review to validate:

- The appropriate ICR is referenced to match the external reference in the M code, to comply with *M Programming Standards and Conventions (SAC)*.
- The ICR in FORUM is updated with the Subscribing Package related to the patch.
- The ICR has an active status in FORUM.

A Patch passes the ICR portion of the SQA review when the ICRs are correctly documented in the patch routines and the ICR definition in FORUM.

The SQA review **does not** pass the patch if ICR issues are unresolved. During the SQA review, the SQA reviewer documents all ICR issues found so the developer can address all known ICR issues in the next patch iteration sent for SQA review.

2.2. Class 2 and Class 3 Package ICRs

Class 2 and Class 3 Packages do not go through the OIT SPM SQA review process that Class 1 Packages must pass before going to IOC. However, M code in patches is required to pass SQA review by the Field Enhancement and Sustainment (FES) Team before the patch can be installed in the field.

FES SQA review requires M code routines to include references to the ICRs matching the external references in the patch routines.

The main difference between ICR SQA for Class 1 Packages and FES SQA for Class 2 and Class 3 Packages is the FES SQA does not require (1) the Subscribing Package to be a Subscriber of the ICR, and (2) the ICR to be active in FORUM.

Historically, this is because ICRs defined in FORUM represent a contract between Class 1 Packages. Class 2 and Class 3 Packages are not usually added as subscribers because of potential misrepresentation of a contract between the Class 1 Package and the Class 2 or Class 3 Package.

As a result, there are many ICRs referenced in M code routines installed at sites throughout the VA enterprise which have not been approved for use by Custodian Developer SMEs, even though the routine passed SQA review by conforming to the *M Programming Standards and Conventions SAC,* which is linked in the [References and Related Links](#) section of this document.

In the instance of Class 2 and Class 3 Packages, there are some situations where the ICRs have been documented in FORUM as Subscribing Packages on a Document Only basis with a clear designation of the Package being "Document Only - Class 3", negating the Class 1 contract.

3. Team Roles

3.1. The ICR Team

The VistA Office Change Management (VOCM) Pillar ICR Team is responsible for overseeing the management of ICR agreements and assist the user community with the associated ICR processes. The ICR Team can be reached for questions related to ICRs by sending an email message to the OIT DSO SPM Health VistA Office Integration Control Registrations Mailgroup at icrs@va.gov.

The ICR Team's role is to:

- Assist product teams with questions related to ICRs needing to be added to FORUM.
- Assist product team members to determine which ICR best matches the external reference access in the package's routine.
- Facilitate agreements between custodial package and subscribing package resulting in documented and approved ICRs in FORUM.
- Provide and maintain the new ICR Request Intake Form and ICR Request List SharePoint tools. For more information regarding these SharePoint tools, refer to the ICR Request Intake Form section of this document.
- Receive ICR Requests from a Package Requestor, after the Requestor submits an ICR Request Intake Form, which is sent to icrs@va.gov in an autogenerated email message.
- Review original ICR Request content and request more information if needed on the ICR Request's email message thread.
- Add developer SMEs, for the custodial package and subscribing package identified in the ICR request, to the message thread with a request to review for concurrence/approval. The ICR Team will provide a mockup of the "SUBSCRIBING DETAILS" if applicable, which could be added to the ICR for historical documentation.
- Track discussion activity related to the ICR request message thread until the request is approved, denied (with alternative approach), or withdrawn.
- Update the ICR Request item in the ICR Request List to reflect the incremental status of the ICR request (e.g., Assigned, Sent to Custodian, Completed).
- Update the ICR status in FORUM, including Deactivation (to edit the ICR to make the status "Under Revision") and Activation upon approval.
- Update the ICR Request item in the ICR Request List with final status.
- Update the ICR Request List to attach a copy of the ICR Request message thread related to the ICR request for historical access by any Product Team.
- Provide a redacted ICR environment, updated monthly, to support FOIA and the ICR Lookup (va.gov) tool.
- Provide monthly list of redacted ICRs to FOIA for use by WorldVistA to provide ICR definitions outside the VA firewall. Upon request, provide monthly redacted ICR report to developers without access to FORUM.
- Support Custodian Developers coordinating changes to existing ICRs

- Provide an example of an ICR Spreadsheet for Product Teams to use to track ICR Requests through the completion of the ICR in FORUM. This is helpful if The Product Team is managing over 10 ICR Requests related to a patch (with multiple iterations).

3.2. The Product Team

3.2.1. The Product Team and ICRs

Product Team developers must consider answers to the following questions when designing their product:

1. What kind of Product is being developed (web-based, GUI, M code-based)?

2. What interface mechanism will be used based on the Interface Requirement section defined in the *VistA Reference Guide's* Interface Requirements section?

3. Are VistA's Authorized Boundaries defined in the *VistA Reference Guide* being respected in the new Product design?

4. What deviations from the *VistA Reference Guide* interface requirements are being planned?

5. Before proceeding with a design that deviates from interface requirements, the Product Team Developer must submit a request for approval from The VistA Office Review Board (VORB) at OIT_DSO_SPM_HEALTH_VISTA_OFFICE_VORB@va.gov.

6. What information will the new Product access from another package to support new Product functionality?

7. What information will the new Product update in VistA files owned by other Packages?

8. Will an application proxy be used?

9. What RPCs will this Product need to access from other Packages?

10. What ICRs in FORUM already exist to which the new Product's Package could subscribe?

11. What new ICRs need to be created and requested for approval if an ICR doesn't exist?

12. Has an ICR Request been submitted in an ICR Intake Request Form to review and approve each new ICR or modify and subscribe to an existing ICR? The submission will automatically send an email message to the OIT DSO SPM Health VistA Office Integration Control Registrations team at icrs@va.gov and other recipients added to the ICR Request. Add additional contacts, as needed, to the email message thread after the ICR Request is submitted.

13. Have all ICR references been documented in the routines to comply with *M Programming Standards and Conventions*?

3.2.2. The Product Team and Other VistA Resources

The ICRs defined in the INTEGRATION REFERENCES file (#50055.1) in FORUM are one resource for accessing information related to ICRs. The VA Software Document Library (VDL) provides technical manuals that serve as an excellent resource to identify common routines and remote procedures documentation. The new *VistA Reference Guide* is also a good resource for reviewing interface requirements to ensure the VistA Authorization Boundary is respected.

Nationally released OIT SPM VistA software reference information is available by following the links in the References and Related Links section of this document, to include the following:

- VistA Reference Guide and supporting documents
- VA Software Document Library (VDL)
- VA EA VistA Dashboard
- VistA Monograph
- VA System Inventory (VASI)

4. ICR Definitions in FORUM

Each ICR in FORUM:

- Represents an integration agreement that defines a software component, denotes ownership by a Custodial Package, and is subscribed to by one or more Subscribing Packages.
- Documents specifics about the Custodial Packages software component.
- Documents specifics about what and how the Subscribing Package accesses the software component.
- Documents what is the Subscribing Package functionality that made this agreement necessary.

Each ICR has a *Type* field which dictates the fields that must be entered to document the ICR for use by the Subscribing package, including:

- File (names the file, global reference and fields accessed)
- Routine (names the tags and input and output variables)
- Remote procedure (work with the ICR Team to add the Remote Procedure into FORUM)
- Other (The description should specify what other Package component the ICR needs to access.) Common *Other* components are:
  - Option,
  - Protocol,
  - Parameter (adding Parameter in the Package namespace), or
  - Application Proxy,
  - software components not covered elsewhere

The ICR is owned by the Custodial Package specified in the ICR, even though a Subscribing Package may have added the ICR.

Each Product defined in a Product Line has Developer SMEs who are experts for that specific Product and who are familiar with the Package software components. The Custodian is the developer SME for a Custodial Package that owns the ICR. The Custodian has the authority to determine if it is appropriate for a Package to subscribe to the Custodian's ICR.

5. Entering an ICR

The following are typical steps to follow if the Product Team has identified an external reference in their routine that accesses a software component owned by another Package and may need a new ICR entered in FORUM.

1. Acquire access to FORUM. The following is a link with instructions to request access to VistA FORUM: [Self-Service - FORUM/IFCAP/EIE/CIO: Access Requests for FORUM and VistA IFCAP - Hines Stations, CIO Station 776 and EIE Station 116 (va.gov)](#). Request access to the Software Services Primary Menu (A2A SOFTWARE SERVICES MENU). No security keys are needed.

2. Search current ICRs to see if there is an existing ICR matching access needed, or one closely matching the access needed by the Subscribing package.

ICR Lookup Tool

The [ICR Process and Standards SharePoint Page](#) provides a link to a new ICR Lookup tool, [ICR Lookup (va.gov)](#) This tool was created by FES to help developers validate if an existing ICR matches the subscribing package needs. This tool is easy to use by specifying search criteria to get a list of ICRs matching the search criteria. Then the tool allows quick access to view the content of each listed ICR. The ICR output is a field-by-field output for each ICR, similar to a FileMan CAPTIONED output. This tool is significantly easier to use than using FORUM to search for ICR matches. However, developers need to be aware the ICR data comes from a database copied from FORUM the first week of every month and redacted for use by FOIA, so the data returned could be missing up to a month of ICR activity. It is recommended to use the ICR Lookup tool to search for ICR matches generally but—for more current ICR content—to use the FORUM ICR Lookup.

Important hint to choose the best ICR match from the ICR Lookup Tool:

The ICR Lookup tool designates the *Usage* of Supported, Controlled Subscription, and Private. To find the best ICR match, start with ICRs with Supported in the list returned, then Controlled Subscriptions, and finally Private. Secondly, the *Status* of the existing ICR should be *Active*. Ignore *Withdrawn* ICRs.

FORUM ICR Lookup

Follow the steps below to do a lookup on ICRs in FORUM:

1. Select the DBA MENU from the Software Services Primary Menu option prompt.

2. Select the INTEGRATION CONTROL REGISTRATIONS . . . option from the DBA MENU option prompt.

3. Select the Inquire to an Integration Control Registration option from the INTEGRATION CONTROL REGISTRATIONS Option prompt.

4. At the INTEGRATION REFERENCES: prompt, enter text to search for (e.g., an existing ICR number, routine name, file name, or global reference). The FORUM ICR Lookup is using all the FileMan cross-references defined for the INTEGRATION REFERENCES files to search for matches.

The list of ICRs returned provides the ICRs matching the search. Each ICR must be selected to get the full ICR inquiry output. The FORUM inquiry output is the ICR format that Custodian Developer SMEs expect to see for discussion purposes.

3. The Subscribing Package Developer should work out the details of a new ICR before entering the ICR in FORUM. Some Subscribing Package Developers create a mockup of the ICR content and share it in an email message with the Custodian SME for the custodial package. This allows the Subscribing Package Developer to gain feedback before adding the ICR in FORUM. The Custodian SME may respond with a redirect to use another ICR (e.g., an existing routine type ICR instead of a new direct file access ICR) or make other recommendations that will be useful when entering the ICR in FORUM. The ICR Team will provide a Custodian SME to provide a cursory review of the mock-up ICR.

4. A Product Team member (often a developer) adds the ICR in FORUM.

To add an ICR, follow the steps below:

1. Select the DBA MENU from the Software Services Primary Menu option prompt.

2. Select the INTEGRATION CONTROL REGISTRATIONS option from the DBA MENU option prompt.

3. Select the ADD/EDIT Pending Integration Control Registration option from the INTEGRATION CONTROL REGISTRATIONS Option prompt.

4. Accept the ICR number shown at the Select INTEGRATION REFERENCES: nnnn// prompt. This ICR number is the next ICR number available to use to create a new ICR. Select return to continue creating the new ICR and the FORUM user logged in will automatically be added as the Editor for the ICR.

5. Answer each prompt to complete the ICR definition. Hint: Use the *Inquire Integration Control Registrations option* to review other completed ICRs to get examples for content and level of detail expected for the type of ICR.

6. The ICR will stay as *Pending* and can be edited by the user in the future until the ICR is *Activated*.

7. After the ICR definition updates are entered in FORUM, the new ICR is ready for review by the ICR Team and the Custodial and Subscribing developer package SMEs. The individual requesting the ICR is the Requestor of the ICR Request. The requestor should select the *ICR Request Intake Form* link from the ICR Process and Standards SharePoint page, to submit an ICR Request. When completing the form, the Description box should include:

    a. Details of why this ICR is needed to satisfy product functionality.

    b. What patch(es) are related to this ICR need.

    c. A capture of the ICR's FORUM Inquiry output using the *paste as plain text* to paste the capture into the Description box, then select the captured ICR inquiry text and change the font to Courier to retain the ICR FORUM inquiry format for consistency and readability, and finally add highlights to the ICR text to show what needs to be added or edited in the ICR.

8. Submission of the ICR Request generates an email message which will provide the email message thread to capture the approval by the Custodian Developer SME. Once the approval is granted in the message thread, the ICR Team will activate the new ICR and mark the ICR Request as completed.

6. The ICR Process and Standards SharePoint Page

VistA Office has an ICR Process and Standards SharePoint page to provide guidance regarding ICR-related topics. This SharePoint page will continue to evolve as the ICR team obtains new references, links, and tools to assist developers with the ICR process.

The ICR Process and Standards SharePoint page currently provides links to the following:

- ICR Request Intake Form
- ICR Request List (Status)
- ICR Guidance and Useful Information
  - Link to this ICR guide
  - ICR Process Overview
  - ICR Request Intake Form Quick Help
  - ICR Request List Quick Help
- Useful Links which includes
  - ICR Lookup Tool
  - M Programming Standards and Conventions (SAC)
  - VA Software Document Library (VDL)
  - VistA Dashboard
  - VA Systems Inventory (VASI)
  - Process Asset Library (PAL)
- Quick Links to PAL Development Documentation
  - VistA National Patch Module Guide
  - VistA Primary Developer Review Checklist
  - VistA Secondary Developer Review Checklist
  - SQA Checklist
  - VistA Verifier Checklist

Refer to Figure 6-1, which depicts a screen capture of the ICR Process and Standards SharePoint page:

Figure 6-1: The ICR Process and Standards SharePoint Page

7. The ICR Request Intake Form

The VistA Office Change Management Pillar's ICR Team created the ICR Request Intake Form to better track ICR Requests and generate metrics for reporting to VistA Office leadership. The ICR Request Intake Form is the starting point for requesting an action to be taken on an ICR. Each ICR Request submitted from the ICR Request Intake Form is available to view from the ICR Request List, an aspect of the process discussed in this section.
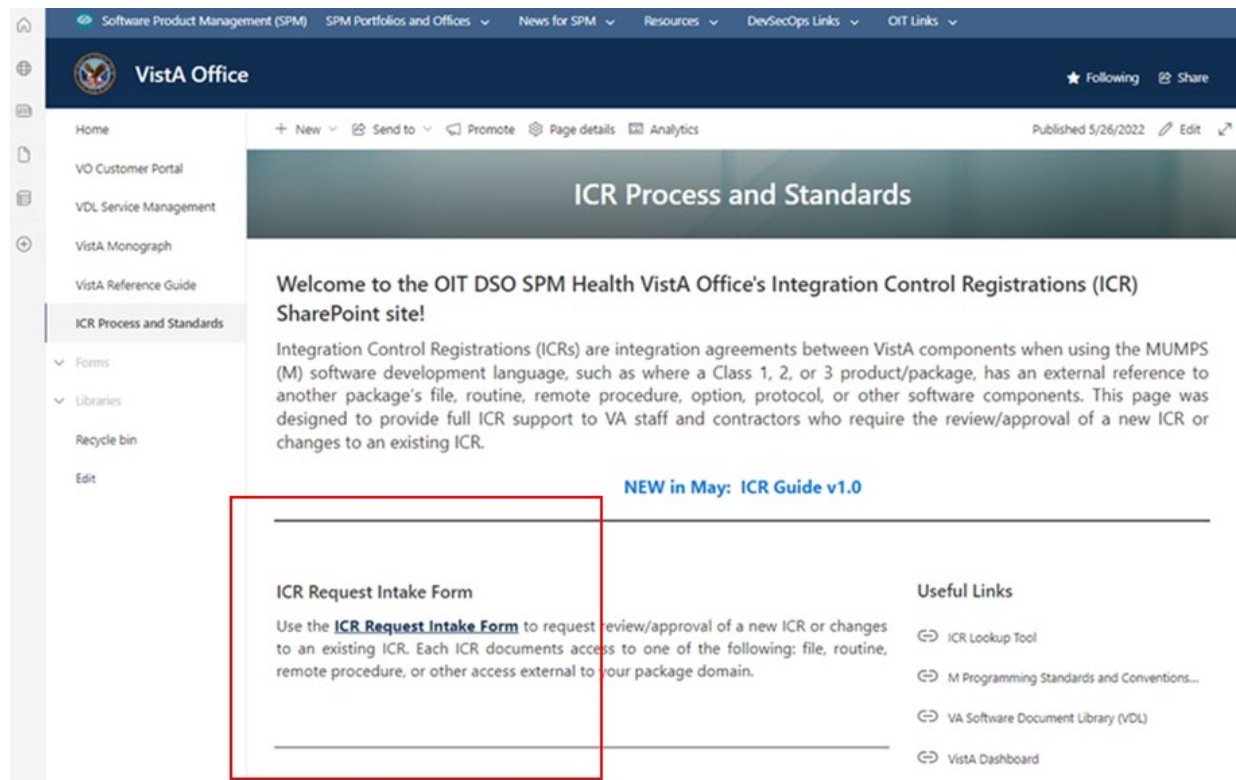
7.1. Accessing the ICR Request Intake Form

An Edge or Chrome internet browser is recommended to access the ICR Request Intake Form. **Internet Explorer will not work with this Intake Form.**

Users can access the ICR Request Intake Form link from the following SharePoint pages and direct link:

- VistA Office Customer Portal SharePoint Page
- ICR Process and Standards SharePoint Page
  (Note: The ICR Team recommends saving this link to the user's Favorites folder.)
- ICR Request Intake Form direct link.

Refer to Figure 7-1, which depicts the link to the ICR Request Intake form from the ICR Process and Standards SharePoint page.

Figure 7-1: Accessing The ICR Request Intake Form

7.2. Completing the ICR Request Intake Form

An ICR Request is submitted to the ICR Team using the ICR Request Intake Form. Typically, one ICR Request should be entered for each ICR. The ICR Intake Request should include information about what activity needs to occur related to the ICR. Examples of activity requests follow:

- Questions about an ICR
- Review, approval, and activation of a new ICR
- Add new Subscribing Package to an existing ICR
- Add new Subscribing Package and request modifications to an existing ICR
- Existing Subscribing Package needs to modify an existing ICR definition
- Custodial Package needs to modify an existing ICR definition (**Note:** ICRs between Class 1 packages are contracts, so any change needs to consider the impact on existing Subscriber Packages.)

Refer to Figure 7-2, which depicts a blank example of the ICR Request Intake Form.

Figure 7-2: ICR Request Intake Form - Blank Form

Title of Request		
Date of Request	9/7/2022	
Requestor		
Project Manager		
Additional Recipients (GAL Entries)		
Additional Recipient Email(s)		
Detailed Description of Request		
IOC Date		
Project		
Patch(es)		
ICR Number		
Custodial Package		
Subscribing Package		
Software Class		
Type		
'Other' Type		
	Submit	

7.3. Submitting the ICR Request Intake Form

Listed below are detailed directions to fill out the ICR Request Intake Form. Some fields may appear to be duplicates of information entered within the text of the Detailed Description of Request fields, but the separate fields are used to build the columns in the ICR Request List, which can then be used to sort and search ICRs using column filters.

TITLE OF REQUEST: (Required) Enter the title of the request. *Title of Request* should contain the ICR Number (if known), and brief text of the action requested. Examples of a Title of Request include:

- "Request Activation of New ICR 7348"
- "Request Modification of ICR 3731"
- "WebVRAM Request to Subscribe to ICR 1629 XWB GET VARIABLE VALUE"

DATE OF REQUEST: This field is autogenerated to be the current date.

REQUESTOR: (Required) Enter the Requestor's name. Entering the Requestor's name can be performed by entering the full VA-associated email address or entering the name with the format 'Last Name, First Name', or using the browse function of the People Picker located to the right of the field.

The Requestor can optionally add other Product Team members who will receive the ICR Request's email message, which is autogenerated upon submittal. The requestor could also include the Custodian or Subscriber developer SMEs with whom the Product Team may have coordinated and explain the coordinated roles between the Custodial Package and the Subscribing Package in the Description field. (**Note:** As an alternative to using the additional recipient fields in this form, the requestor can add additional recipients to the message thread created by the ICR Request submission.)

Other recipients the Requestor may include:

- **PROJECT MANAGER:** Enter the Project Manager's name. Entering the Project Manager's name can be performed by entering the full VA-associated email address or by entering the name with the format 'Last Name, First Name', or by using the browse functionality of the People Picker located to the right of the field.

- **ADDITIONAL RECIPIENTS (Global Address Lookup (GAL) ENTRIES):** Enter up to three Additional Recipients who can be found in the GAL and need to be informed on the email message thread related to this ICR request. Additional Recipients from the GAL can be added by entering the full VA-associated email or enter name with the format 'Last Name, First Name', or by using the browse functionality of the People Picker located to the right of the field.

- If more than three GAL recipients need to be added, then add them to the email message *To* or *Cc* list AFTER the ICR Request is submitted.

- **ADDITIONAL RECIPIENT'S EMAIL(S):** Enter the Additional Recipient's Email(s) for individuals not found in the GAL (such as Class 2 or Class 3 developers). Email entries in this field should contain the full email address. An example of an Additional Recipient's Email is Two.ProjectManager@Example.com.

DETAILED DESCRIPTION OF REQUEST: (Required) Enter a Detailed Description of Request. The ICR Requests can be general questions made to the ICR Team or requests for actions to be taken for a new or existing ICR in FORUM. If the ICR Request is regarding ICR actions needed by the ICR Team, then the following information should be included:

- The project requiring this ICR
- The patch requiring this ICR
- Pertinent background information about the functionality provided by the Package causing the need for the ICR
- The name of Custodian Package SME(s) and Subscriber Package SME(s) that coordinated the agreement to use the ICR, if applicable
- If a new ICR needs review and approval, include the ICR inquiry capture from FORUM.
  - Use *Paste as plain text* to paste the capture,
  - select the captured text and change the font to Courier which restores the output format from the ICR inquiry capture from FORUM.
- If a modification is needed to an existing ICR, include the mockup of the modification from a copy of the original ICR inquiry capture.
  - Use a word document or email message (that you won't send) to paste in the ICR inquiry capture from FORUM.
  - Mockup the changes and highlight all the changes to create the 'to-be' version of the ICR.
  - When ready to submit the ICR Request, copy the mockup from MS Word or from the email message and use *Paste as plain text* to add the modified ICR capture to the description. After this is accomplished, change the captured font to Courier and add back the highlighting that identifies what modifications are being requested. (This text manipulation is due to limitations in the fonts that are recognized by SharePoint tools.)
- Separate captures for 'as-is' and 'to-be' can be added to the description, **but the highlight of what needs to be modified must be included in the 'to-be' capture**.

IOC DATE: Enter the IOC (Initial Operating Capabilities) Date, if known. This will help the ICR Team identify the urgency if there is an influx of ICRs that need to be prioritized.

PATCH(ES): Enter any PATCH(ES) associated with this ICR Request. (e.g., DG*5.3*1071)

ICR NUMBER: Enter the ICR Number (if existing).

CUSTODIAL PACKAGE: Enter the name and/or namespace for the Custodial Package.

SUBSCRIBING PACKAGE: Enter the name and/or namespace for the Subscribing Package.

TYPE: Select the Type of request from the pull-down options. Options include File, Remote Procedure Call, Routine, SQL Table, or Other.

'OTHER' TYPE: If Other is selected as the *Type* from the previous step, provide a brief entry explaining what is being accessed.

SUBMIT: After completing the form, click *Submit* which will automatically generate and send an email message to the ICR Team, the requestor, and other recipients entered by the requestor. (**Note:** Once the ICR Request is submitted, it cannot be edited from the form. If edits need to be made to the request, then explain changes to the request in the email message thread created for this ICR Request. The message response could include a new ICR capture with altered modifications. The message thread becomes the history of the discussion and evolution of the final ICR. Refer to Figures 7-3 and 7-4, which depict a completed example of the ICR Request Intake Form.

Figure 7-3: ICR Request Intake Form - Completed Example

Figure 7-4: ICR Request Intake Form - Completed Example (continued)

When the *Submit* button is selected, a submission confirmation pop-up will appear. Refer to Figure 7-5.

Figure 7-5: ICR Request Intake Form Submission Confirmation

When the *Submit* button is selected, an email message is autogenerated with the information depicted below. This email message will be the message thread for further discussions related to this ICR Request. Additional recipients can be added as needed to the message thread discussion by using a *Reply to All* action and adding the individuals in the TO: list.

> Subject: [EXTERNAL] ICR Request: "Title of Request"
>
> From: SharePoint Online <no-reply@sharepointonline.com
>
> TO: OIT DSO SPM Health VistA Office Integration Control Registrations Mailgroup icrs@va.gov and Requestor. Additional recipients include Project Manager, Additional Recipients (GAL Entries), and Additional Recipient Email(s), if they were identified in the ICR request.

Refer to Figure 7-6, which depicts an example of the autogenerated email.

Figure 7-6: ICR Request Generated Email

Sent: Friday, August 5, 2022 11:52 AM
To: Developer.One@va.gov; Developer.Two@va.gov; Developer.Three@va.gov; Two.ProjectManager@Example.com; ; Two.ProjectManager@Example.com; >; OIT DSO SPM Health VistA Office Integration Control Registrations <ICRS@va.gov>
Subject: [EXTERNAL] ICR Request: Request Activation of New ICR 7348

[Submitted by Developer.One@va.gov]
This email was generated automatically upon the submission of the VistA Integration Control Registration (ICR) Intake Form and will serve as the email thread for all further communications for this ICR Request through to its completion. If attachments were needed for this request, please attach them to this email string. This ICR Request will be assigned to a VistA Office ICR team member to review and follow-through the ICR process with you. To check the status of ICR Requests, please go to the VistA Office ICR Request site at https://dvagov.sharepoint.com/sites/OITEPMOVistAOffice/Lists/Integration%20Control%20ICR%20Request/AllItems.aspx

Title of Request	Request Activation of New ICR 7348
Date of Request	8/5/2022
Requestor	One, Developer
Project Manager	One, Project Manager
Additional Recipients (GAL Entries)	Two, Developer; Three, Developer
Additional Recipient Email(s)	Two.ProjectManager@Example.com

Detailed Description of Request
The Scheduling Package requests approval and activation of new ICR 7348, effective with SD*5.3*821.
A capture of the new ICR 7348 follows:

```
    7348      NAME: SDTMPUTL
 CUSTODIAL PACKAGE: EVENT CAPTURE
SUBSCRIBING PACKAGE: SCHEDULING

          USAGE: Controlled Subscri   ENTERED: AUG 4,2022
         STATUS: Pending              EXPIRES:
       DURATION:                      VERSION:
           FILE: 728.441                 ROOT: ECX(728.441
    DESCRIPTION:                         TYPE: File
  The Scheduling package requests permission to look at the NATIONAL CLINIC
  FILE (#728.441) file to get the SHORT DESCRIPTION (#1) field.

  The $$CHAR4DSC function was deployed in Telehealth Management Platform
  (TMP) Scheduling routine, SDTMPUTL, with patch SD*5.3*821 and will utilize
  FileMan calls to retrieve the external value of the SHORT DESCRIPTION (#1)
  field.
  GLOBAL REFERENCE:
   ^ECX(728.441,D0,0)
     1       SHORT DESCRIPTION    0:2     Read w/Fileman
     The short description for the type of clinic represented by this
     national code.

         KEYWORDS: CHAR4
                   DESCRIPTION

         ****************************
```

IOC Date	9/1/2022
Project	TeleHealth Management Platform (TMP)
Patch(es)	SD*5.3*821
ICR Number	7348
Custodial Package	EVENT CAPTURE
Subscribing Package	SCHEDULING
Software Class	Class 1
Type	File
'Other' Type	

This email thread will serve as the communication channel for all further communications pertaining to this ICR Request through to its completion. Upon receipt of the email, the ICR Request will be assigned to a VistA Office ICR team member, who will then act upon the request.

8. The ICR Request List

The VistA Office, Change Management Pillar, and ICR Team use the ICR Request List to manage ICR Requests submitted from the ICR Request Intake Form. The ICR Request List is available to any Product Teams who may want to look up activity related to a specific ICR.
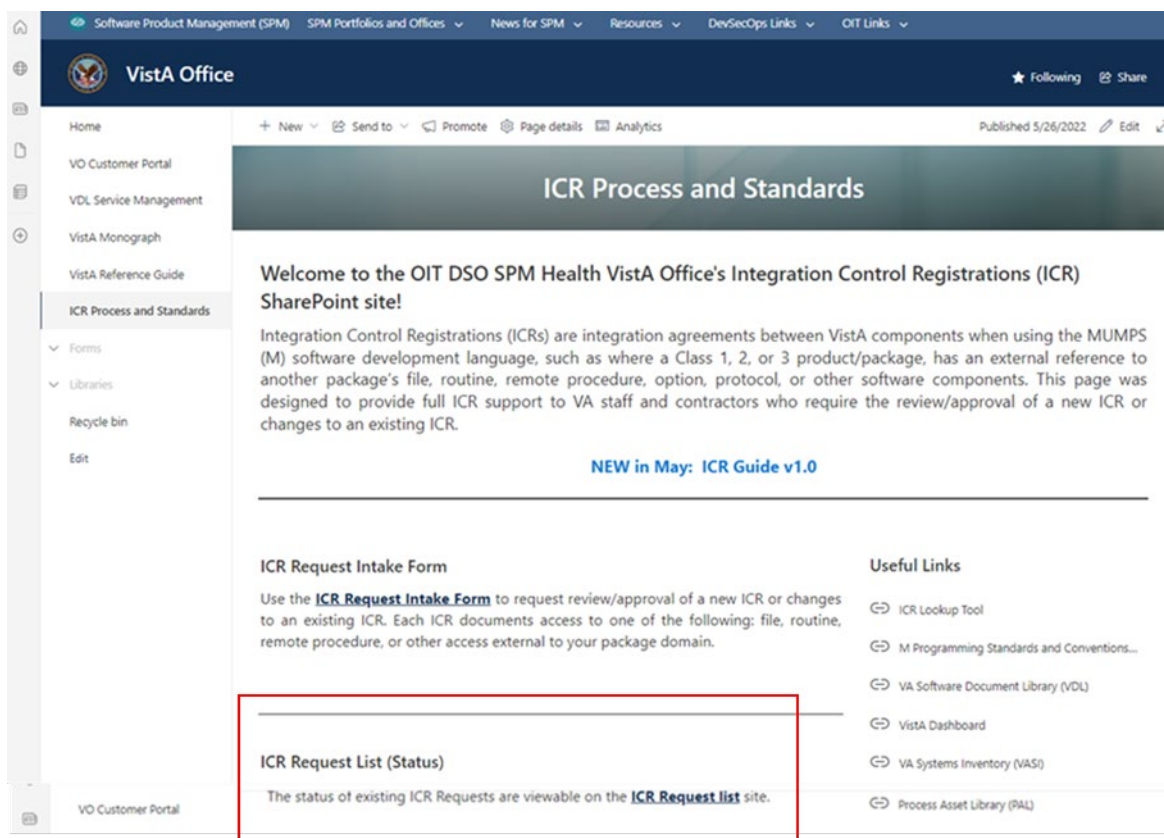
8.1. Accessing the ICR Request List

Edge or Chrome internet browsers are recommended to access the ICR Request List. **Internet Explorer will not work properly with SharePoint tools.**

The ICR Request List link can be accessed from the following SharePoint pages and direct link:

- [VistA Office Customer Portal SharePoint Page](#)
- [ICR Process and Standards SharePoint Page](#)
  (Note: The ICR Team recommends saving this link to the user's Favorites folder.)
- [ICR Request List](#) direct link.

Refer to Figure 8-1, which depicts the link to the ICR Request Intake List from the ICR Process and Standards SharePoint page.

Figure 8-1: Accessing the ICR Request Intake List

For an example of the ICR Request List display, refer to Figure 8-2.

Figure 8-2: ICR Request List Example

The columns displayed in the list includes fields from the submitted ICR Request and additional fields created for the VistA Office ICR Team to manage the ICR Request.

Left to right, the first four columns are the key fields identifying the ICR Request. After these identifying columns, the ICR Team's key tracking columns are added based on fields the ICR Team uses to manage activity related to the ICR request.

Refer to Table 8-1, which summarizes the key columns identifying the ICR Request and view the current activity related to that request.

Table 8-1: Key ICR Request Columns and Descriptions

Column	Description
Req ID	Unique number assigned to the ICR Request for tracking purposes
ICR #	ICR identified in the ICR Request
Title	Title of Request in the ICR request
Date of Request	Date ICR request submitted
Request Status	ICR Request Status
Requestor	Requestor in the ICR Request
VO Comments	ICR Team comments to summarize activity
VO POC	VO ICR Team Point of Contact assigned to the ICR Request

These columns are followed by the remaining fields from the ICR Request, which are viewable by scrolling to the right on the page. Columns can be used to filter ICR requests, as needed.

> **Special Instruction -** The following is a restriction on what **NOT** to do from the opened ICR Request Status View:
>
> **DO NOT use the NEW button on the ICR Request List to submit a new ICR Request.** Entering a new ICR should **only** be done by using the ICR Request Intake Form.

8.2. Opening an ICR Request from the ICR Request List

The user can open a specific ICR Request to view the submitted ICR request. The user can find the ICR Request of interest in the list using column filters such as ICR #. Right click on *Title* for the list entry and select *Open*.

Selecting *Open* opens a view of the ICR Request, which includes request information. This is for View-only purposes by individuals who are not members of the ICR Team.

> **Special Instruction -** The follow is a restriction on what **NOT** to do from the opened ICR Request View:
>
> **DO NOT use the Edit Item and Delete Item actions on the top menu of the page.** Editing is for use by the ICR Team only.

If modifications are needed, please communicate those changes in a *Reply to All* response to the email message thread for the ICR Request. During the review process of the original ICR requests, it is common to have recommendations that are changes from the original request. The email responses are effective to track the evolution of these changes. **Edits to an ICR Request entry after the initial ICR Request submission should only be entered by the ICR Team.**

Refer to Figures 8-3 and 8-4, which depict the ICR Request View.

Figure 8-3: ICR Request View

Title of Request	Request Activation of New ICR 7348
Date of Request	8/5/2022
Requestor	One, Developer
Project Manager	One, Project Manager
Additional Recipients (GAL Entries)	Two, Developer Three, Developer
Additional Recipient Email(s)	Two.ProjectManager@Example.com

Detailed Description of Request
The Scheduling Package requests approval and activation of new ICR 7348, effective with SD*5.3*821.
A capture of the new ICR 7348 follows:

```
    7348       NAME: SDTMPUTL
  CUSTODIAL PACKAGE: EVENT CAPTURE
SUBSCRIBING PACKAGE: SCHEDULING

            USAGE: Controlled Subscri   ENTERED: AUG 4,2022
           STATUS: Pending              EXPIRES:
         DURATION:                      VERSION:
             FILE: 728.441                 ROOT: ECX(728.441
      DESCRIPTION:                         TYPE: File
  The Scheduling package requests permission to look at the NATIONAL CLINIC
  FILE (#728.441) file to get the SHORT DESCRIPTION (#1) field.

  The $$CHAR4DSC function was deployed in Telehealth Management Platform
  (TMP) Scheduling routine, SDTMPUTL, with patch SD*5.3*821 and will utilize
  FileMan calls to retrieve the external value of the SHORT DESCRIPTION (#1)
  field.
  GLOBAL REFERENCE:
    ^ECX(728.441,D0,0)
      1         SHORT DESCRIPTION    0;2      Read w/Fileman
       The short description for the type of clinic represented by this
       national code.

         KEYWORDS: CHAR4
                   DESCRIPTION
```

Figure 8-4: ICR Request View (continued)

****

IOC Date	9/1/2022
Project	TeleHealth Management Platform (TMP)
Patch(es)	SD*5.3*821
ICR Number	7348
Custodial Package	EVENT CAPTURE
Subscribing Package	SCHEDULING
Software Class	Class 1

9. References and Related Links

The following documents are available from links related to the VistA Reference Guide SharePoint page.

- VistA Reference Guide
- VistA Package/Namespace Setup Guide

The following are *authoritative source* links for items referenced throughout this document, including M code programming standards and conventions, VistA document library for more package technical documentation, Primary Developer Review Checklist, SQA Checklist, and other links related to VistA products.

- M Standards and Conventions Work Group SharePoint Site
- M Programming Standards and Conventions SAC (Available in the Documents section of the SAC SharePoint site)
- M Programming Standards and Conventions SAC (Available in the VA Technical Reference Model (TRM))
- VistA Primary Developer Review Checklist
- VistA Secondary Developer Review Checklist
- VistA SQA Checklist
- VistA Verifier Checklist
- VistA Monograph
- VA EA Systems and Applications Domain | VASI – VA | Enterprise Architecture
- VA EA VistA Dashboard

10.   Contact Information

For more information on VistA ICR Guide, please contact the OIT DSO SPM Health VistA Office Integration Control Registrations at icrs@va.gov.