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Announcement

[Shane Nowack](#) · Oct 27, 2021

## Beta Testers needed for our upcoming CCR Technical Implementation Specialist Certification Exam

Hello CCR Community,

InterSystems Certification is developing a certification exam for CCR and, if you match the exam candidate description given below, we would like you to beta test the exam. We anticipate the exam being available for beta testing on February 7, 2022, but interested beta testers should sign up now by emailing [certification@intersystems.com](mailto:certification@intersystems.com). The beta testing must be completed by March 31, 2022.

What are my responsibilities as a beta tester?

You will be assigned the exam and will need to take it within a month of the beta release. The exam will be administered in an online proctored environment, free of charge (the standard fee of \$150 per exam is waived for all beta testers), and then the InterSystems Certification Team will perform a careful statistical analysis of all beta test data to set a passing score for the exam. The analysis of the beta test results will take 6-8 weeks, and after the passing score is established, you will receive an email notification from InterSystems Certification informing you of the results. If your score on the exam is at or above the passing score, you will have earned the certification!

Extra perk for US-based, non-InterSystems employees: To show our appreciation for beta testing this exam, we will offer the first 20 beta testers that complete the testing a \$50 gift card. The gift card is a [Tango Card](#) that can be redeemed at any number of online retailers.

Note: Beta test scores are completely confidential.

### Exam Details

Exam title: InterSystems CCR Technical Implementation Specialist

Candidate description: A development professional who:

- Uses Tier 1 CCRs to document and process change workflow
- Makes code changes in their Integrated Development Environment of choice
- Makes changes to interoperability components in the Management Portal
- Transports/Deploys code changes to environments

Number of Questions: 86

Time allotted to take exam: 2 hours

Recommended preparation for the exam:

- Take InterSystems Change Control: Tier 1 Basics training
  - See [Community Post](#) for virtual training offered November 30 - December 2, 2021
- Read PDFs of selected slide decks
  - ICC courses applicable:
    - [ICC100](#) (available [online](#))

- [ICC110](#) (available [online](#))
- [ICC200](#) (available [online](#))
- [ICC310](#) (available [online](#))
- [ICC330](#) (available [online](#))
- [ICC400](#) (available [online](#))
- [ICC420](#) (available [online](#))
- [ICC450](#)
- [ICC510](#)
- [ICC530](#)
- [ICC540](#)

- Independently progress at least 20 CCRs and/or approximately 6 months full-time usage
- Review the set of practice questions found in the PDF file at the bottom of this announcement

## Exam Topics and Content

The exam contains question items that cover the areas for the stated role as shown in the KSA (Knowledge, Skills, Abilities) chart immediately below. The question items are presented in two formats: multiple choice and multiple response.

| KSA Group | KSA Group Description | KSA   | KSA Description                            | Target Items   |
|-----------|-----------------------|-------|--|--|
| T37       | General Concepts      | T37.1 | Describes basic change control concepts    | Defines change control as a concept;<br>Discusses the benefits of change control and the risks of not having it;<br>Defines source control alone and in the context of change control; Names tips for successful use of change control |
|           |                       | T37.2 | Describes change control with InterSystems | Describes change control tools used within InterSystems including CCR and Perforce   |
|           |                       | T37.3 | Describes CCR and its main concepts        | Defines CCR First Principles; Identifies the workflow order between the 4 possible CCR   |

| KSA Group | KSA Group Description | KSA   | KSA Description             | Target Items  |
|-----------|-----------------------|-------|-----------------------------|---|
|           |                       |       |                             | Primary environments; Defines the term CCR Transport and describes the movement of changes between environments, CCR, and Perforce; Defines the terms Perforce branch, Item and ItemSet; Describes CCR Usage Tiers and gives examples             |
|           |                       | T37.4 | Performs basic tasks in CCR | Navigates the CCR homepage, main menu, and main pages; Accesses documentation and FAQs; Defines the terms State, Phase, and Transition  |
| T38       | CCR Tier 0            | T38.1 | Progresses a Tier 0 CCR     | Defines the terms Organization, Responsible Organization, Site Code, System, and System Code; Creates a Tier 0 CCR Record; Describes use of fields available when creating a CCR; Documents every state from InPREP to Closed in a BASE-TEST-LIVE |

| KSA Group | KSA Group Description | KSA   | KSA Description                      | Target Items   |
|-----------|-----------------------|-------|--------------------------------------|--|
|           |                       |       |                                      | workflow including peer reviews; Performs the markPREPComplete transition; Identifies the workflow for failPeerReview; Performs the markAcceptanceFailed; Describes markValidationFailed transition, including best practices; Describes the importance of Peer Reviews; Describes the importance of closing CCRs; Implements and tests changes in correct states of the workflow; Locates and uses CCR Transition History; Uses the <env> token in URLs |
|           |                       | T38.2 | Uses Auxiliary Tools and Transitions | Reassigns CCRs; Describes the effect of Peer Review routing configuration options including System Architects and Default Peer Reviewers; Performs merge transitions and interprets results; Performs cancel transitions and interprets results  |

| KSA Group | KSA Group Description | KSA   | KSA Description   | Target Items  |
|-----------|-----------------------|-------|---|---|
| T39       | CCR Transport         | T39.1 | Describes CCR Transport Basics                                  | Describes CCR Client Tools and updates them; Describes CCR Transport workflows for disconnected environments, including uploading ItemSets from BASE to CCR and deploying ItemSets from CCR to TEST/LIVE; Deploys ItemSets using best practices; Describes the automatic preview integration on passPeerReview transition; Identifies states and transitions with possible Performce and/or ItemSet activity; Uses CCR Transport best practices including the importance of canceling CCRs properly |
|           |                       | T39.2 | Describes CCR Transport Tools and terminology in the CCR Record | Defines the term changelist; Locates and identifies available meta data for submitted changes; Logs into Performce in   |

| KSA Group | KSA Group Description | KSA   | KSA Description                                       | Target Items   |
|-----------|-----------------------|-------|---|--|
|           |                       |       |   | CCR; Describes diff chunks and merge conflicts; Finds and interprets list of ItemSets associated with a CCR; Describes the source workplace; Defines and identifies the importance of baselining   |
|           |                       | T39.3 | Describes CCR best practices and debugging techniques | Uses Catch-up CCRs; Uses the revision history; Locates and interprets error messages; Uses transport log to find more information about an error; Identifies cause and solution for merge conflicts; Identifies cause and solution for misalignment; Back out of changes; Identifies and describes how to resolve errors in bundle and upload validation; Describes options if uploaded to wrong CCR |
| T40       | CCR Tier 1            | T40.1 | Uses Tier 1 CCRs to safely progress changes           | Identifies when to checkout items; Uses Source   |

| KSA Group | KSA Group Description | KSA   | KSA Description   | Target Items  |
|-----------|-----------------------|-------|---|---|
|           |                       |       | made in an IDE  | Control Menu in an IDE to checkout, add, diff, and revert changes;<br>Describes the workflow for bundle and upload ItemSet;<br>Identifies how and when to deploy ItemSets in workflow;<br>Identifies key differences between Tier 0 and Tier 1 CCRs in documentation and workflow |
|           |                       | T40.2 | Uses ImplementCCR routines, CCR event handlers for automating deployment          | Identifies use cases for an ImplementCCR routines and CCR event handlers;<br>Creates an implement CCR routine using the correct naming convention   |
|           |                       | T40.3 | Uses %buildccr functions in code  | Identifies and uses %buildccr functions in code   |
|           |                       | T40.4 | Describes key considerations for working with interoperability components and CCR | Describes best practices for code shared across namespaces;<br>Solves necessary differences between environments  |
|           |                       | T40.5 | Demonstrates how to use   | Uses system default settings;   |

| KSA Group | KSA Group Description | KSA   | KSA Description  | Target Items  |
|-----------|-----------------------|-------|--|---|
|           |                       |       | Management Portal Source Control hooks for interoperability components | Identifies interoperability components with Management Portal hooks; Identifies and describes Management Portal hook menus; Describes procedure for working with Productions v2019.4+ and pre-v2019.4; Describes additional considerations for productions v2019.4+ (temporarily start/stop/restart components, undo, color coding for source of values); Works with items that are exportable but do not have Management Portal hooks; Works with items that are available in Studio but do not have Management Portal hooks |
|           |                       | T40.6 | Identifies key considerations for CCR workflows in HealthShare         | Describes use cases for secondary environments; Identifies components of HealthShare that   |



| KSA Group | KSA Group Description | KSA   | KSA Description                                    | Target Items  |
|-----------|-----------------------|-------|--|---|
|           |                       |       |  | can be maintained in source control;<br>Identifies difficulties of working with HealthShare configuration and settings;<br>Describes how to work with HealthShare Patient Index linkage definitions |
|           |                       | T40.7 | Effectively and safely uses secondary environments | Describes behavior of secondary environments;<br>Deploys ItemSets to secondary environments;<br>Identifies configuration options for secondary BASE environments                                    |

Interested in participating? Email [certification@intersystems.com](mailto:certification@intersystems.com) now!

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Source

URL:<https://community.intersystems.com/post/beta-testers-needed-our-upcoming-ccr-technical-implementation-specialist-certification-exam>