



INTERSYSTEMS LEARNING SERVICES

InterSystems Change Control



InterSystems Change Control

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ICC 310: CCR Tier 0 – Usage Basics



Objectives

- Define terms in CCR workflow.
- Create and progress Tier 0 CCRs.
- Perform tasks at appropriate times during CCR workflow.
- Explain importance and usage of each CCR documentation field.



Workflow Diagram

- Shows all possible states, phases, transitions for BASE > TEST > UAT > LIVE workflow.
 - Slides assume BASE > TEST > LIVE workflow.
- Also known as:
 - State diagram.
 - Big scary diagram.
- Available from within CCR application.
 - Menu > Documentation > State Diagram.



Workflow Diagram (cont.)

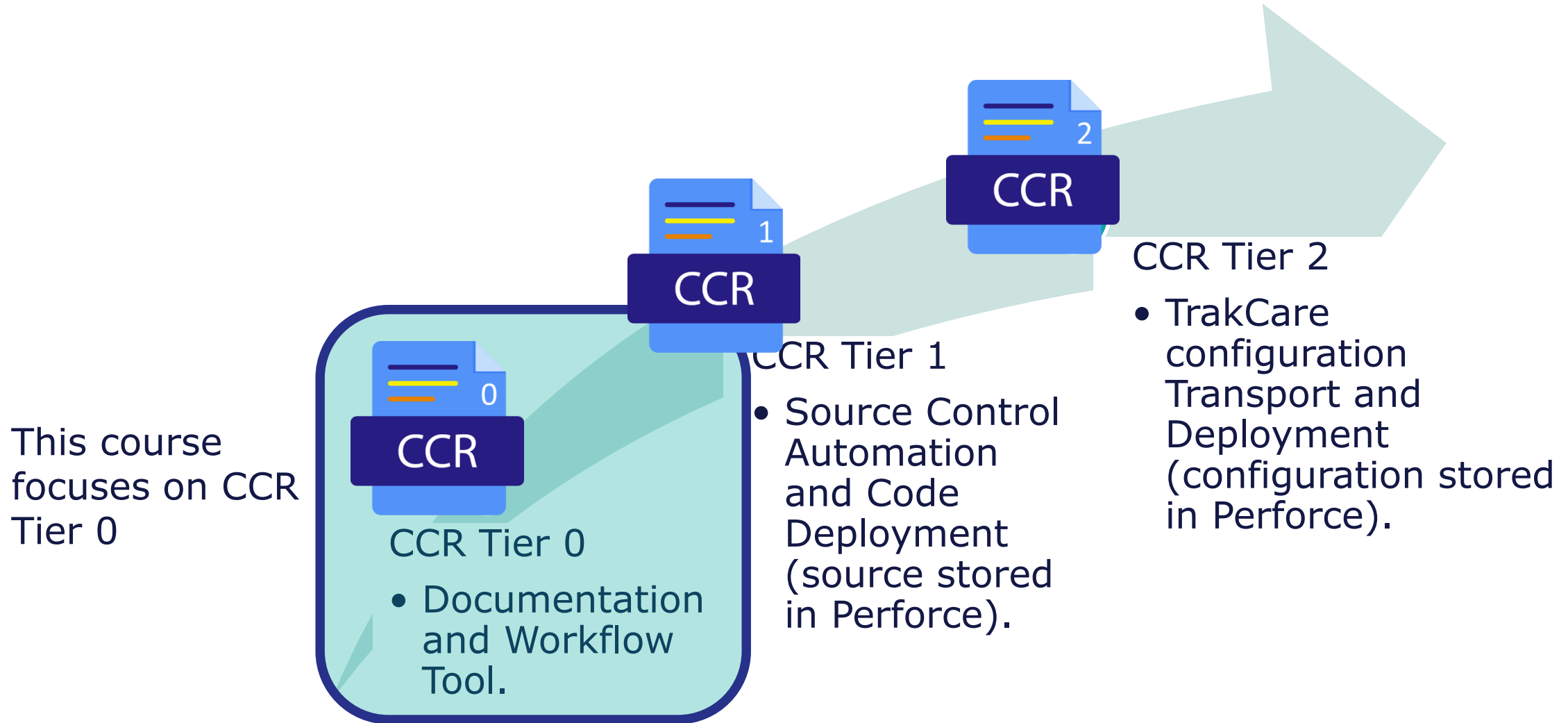
- States in workflow for your particular system available at the top of every CCR.



Part 1: The Fundamentals of a CCR



Review: CCR Usage Tiers



Key Terms

- Organization.

- Customer organization owns application and CCR System.
- All users belong to an organization based on their employer.
- InterSystems employees (ISCX) can create CCRs for any System.
- Members of Organization that owns System can create CCRs for that System.



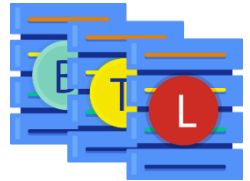
- Responsible Organization.

- Organization responsible for progressing and implementing a CCR.
- Every CCR has one Responsible Organization.
 - Organization of user that created the CCR.
- Only members of Responsible Organization can edit the CCR.



Key Terms (cont.)

- SiteCode.
 - 4 character code for an organization.
 - ISCX for InterSystems.
- System.
 - Collection of environments forming a CCR progression.
 - One organization can have many systems.
- SysCode.
 - Unique, unchanging short name for system.

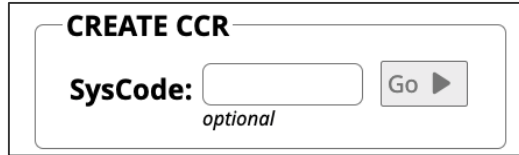


Part 2: CCR PREP Phase



Create a CCR

- CCR Homepage > Create CCR.



CREATE CCR

SysCode: **Go** ▶

optional

- System Details Page > Create New CCR.



AdobeConnect (AdobeConnect) **Create New CCR**

- VS Code - ObjectScript > Source Control menu > Show CCR Controls > [create new CCR].

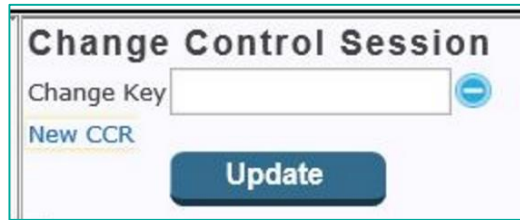


ration [\[create new CCR\]](#)



Create a CCR (cont.)

- TrakCare Tools > Change Session > New CCR.

A screenshot of a web application dialog box titled "Change Control Session". Inside the dialog, there is a label "Change Key" followed by a text input field. To the right of the input field is a small blue circular button with a minus sign. Below the input field, the text "New CCR" is displayed in blue. At the bottom center of the dialog is a dark blue button with the word "Update" in white.

- ISCLaunch > [Ctrl]+[Win]+H: type <SiteCode>/<SystemCode>.



Transition: create

- Ensure the proper System is selected.
- Include a useful Title and Description.
 - Think of this as a 'release note' which might be sent to users (use 'present tense' - change in LIVE).
- Type is typically Application Customization.
 - Has no effect on functionality or reporting.



Create a new CCR ?

Organization* Best Health (BEST) **System*** Interoperability 2020 (INTEROP2020) **CCR Tier*** 0 - Documentation Only

Owner* smith, john

Title* ? New License Key Activated

Description* ? Current license key expires at the end of the month. Activating new license key that expires April 4, 2025

Type-Subtype* Application Customization - InterSystems IRIS **Priority* ?** Normal

iService Ticket(s) ? **JIRA(s) ?** **TechHelp(s) ?**

Prerequisite CCR(s) ? **Related CCR(s) ?**

Group

Update CC: List ?

Notes ?

Cancel Save

Destination: In_PREP



Transition: create (cont.)

- Link related ticket(s).
 - TRC, JIRA, TechHelp and/or Prodlog.
 - Contact InterSystems to make JIRA field link to non-InterSystems server.
- Prerequisite CCR must precede this CCR.
- Related CCR is just a logical link.
- Click Save once finished.

Create a new CCR ?

Organization*
Best Health (BEST) ▼

System*
Interoperability 2020 (INTEROP2020) ▼

CCR Tier*
0 - Documentation Only ▼

Owner*
smith, john ▼

Title* ?
New License Key Activated

Description* ?
Current license key expires at the end of the month. Activating new license key that expires April 4, 2025

Type-Subtype*
Application Customization - InterSystems IRIS ▼

Priority* ?
Normal ▼

iService Ticket(s) ?

JIRA(s) ?

TechHelp(s) ?

Prerequisite CCR(s) ?

Related CCR(s) ?

Group

Update CC: List ?

Notes ?

Cancel Save

Destination: In_PREP



Specifying the CCR Tier Setting

- System level.
 - Maximum tier of any CCR.
 - Default tier of new CCRs.
 - Example: Tier 1 system can have Tier 0 and Tier 1 CCRs.
- CCR Record level.
 - Tier for that CCR.
 - Defaults to System Tier.
 - Change from default if appropriate.
 - Determines enforced rules and workflow.

Create a new CCR ?

Organization*	System*	CCR Tier*
Best Health (BEST) ▼	Interoperability 2020 (INTEROP2020) ▼	0 - Documentation Only ▼



Review: CCR Record

Workflow progress bar

Available Transitions

View in Classic UI [help](#) [merge](#) [clone](#) [reassign](#) [changeSpec](#) [cancel](#) Next Transition: [markPREPComplete](#)

InPREP InBASE BASEPendingPeerReview BASEComplete PendingManualMoveToTEST InTEST TESTPendingPeerReview ...

BEST0012 - New License Key Activated

Current State

In_PREP

Organization

Best Health (BEST)

Open Date

May 17, 2023 14:08

Responsible Org

Best Health (BEST)

Phase

PREP

System

[Interoperability 2020 \(INTEROP2020\)](#)

Opened By

[smith,.john](#)

Owner

[smith,.john](#)

Description

Current license key expires at the end of the month. Activating new license key that expires April 4, 2025

Priority

Normal

iService Ticket(s)

JIRA(s)

Prerequisite CCR(s)

Type - Subtype

Application Customization - InterSystems IRIS

Updates CC List

CCRTier

0 - Documentation Only

Tech Help(s)

Related CCR(s)

Click pencil to modify details in pane


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CCR Navigation

- Next Transition(s)
 - Move CCR to next state
 - Default workflow is right-most transition.

[View in Classic UI](#) [help](#) [merge](#) [clone](#) [reassign](#) [changeSpec](#) [cancel](#) **Next Transition: [markPREPComplete](#)**

InPREP ▷ InBASE ▷ BASEPendingPeerReview ▷ BASEComplete ▷ PendingManualMoveToTEST ▷ InTEST ▷ TESTPendingPeerReview ...

BEST0012 - New License Key Activated 

Current State	In_PREP	Phase	PREP
Organization	Best Health (BEST)	System	Interoperability 2020 (INTEROP2020)
Open Date	May 17, 2023 14:08	Opened By	smith, john
Responsible Org	Best Health (BEST)	Owner	smith, john

Description
Current license key expires at the end of the month. Activating new license key that expires April 4, 2025

Priority	Normal	CCRTier	0 - Documentation Only
iService Ticket(s)		Tech Help(s)	
JIRA(s)		Related CCR(s)	
Prerequisite CCR(s)			
Type - Subtype	Application Customization - InterSystems IRIS		
Updates CC List			



Quiz: Who Can Create a CCR

Question:

CCR users of which of the following organizations can create CCRs for a system owned by Today Robot?

- A. Only InterSystems.
- B. Only Today Robot.
- C. InterSystems and Today Robot.
- D. Any organization using CCR.



Quiz: Who Can Create a CCR (cont.)

Answer:

C. InterSystems and Today Robot.

Keep in mind the user that creates the CCR should also implement and progress the CCR. The Responsible Organization for the CCR will be the organization of the user that created the CCR.



Exercise ICC310-0 and ICC310-1

Create a CCR

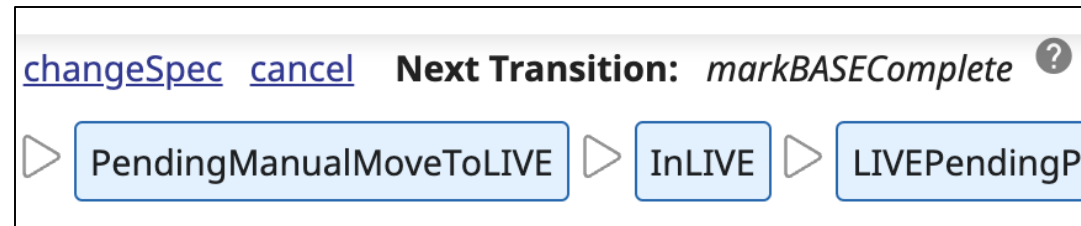
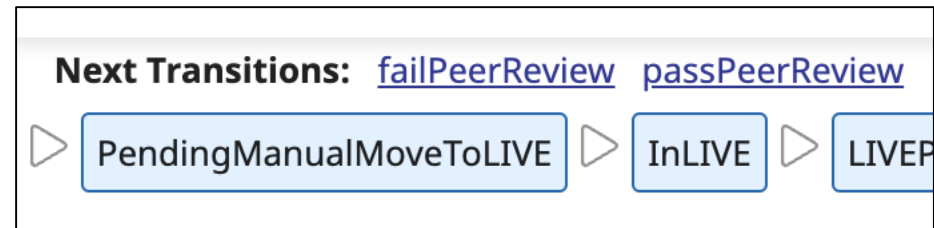


State: In_PREP

- Determine and document expected modifications.
- Do not make any changes to BASE yet.
- Fields to consider:
 - Modified Items: What are the specific things being changed, added or removed?
 - Class definitions.
 - Data.
 - Impacted Areas: What are the areas of the System which could be impacted by the things that were modified?
 - Ability for student50 to login.
 - Appearance of a button.
 - Will be starting point for writing testing plan later.

Performing Transitions

- Transitions found in upper-right corner when viewing CCR record.
- Right-most link moves CCR forward on default path towards closure.
- Cannot perform transition shown in italics with ?.
 - Hover over ? for reason.



Performing Transitions (cont.)

- Required fields listed.
 - Ensure complete and accurate.
- Attachments may be added.
 - Automatically versioned.
- Transition Notes usually optional.
 - Exception: transitions that move CCR backwards.
 - Example: failPeerReview or markAcceptanceFailed.
- Click the transition button to finish.

Perform Transition markPREPComplete

In_PREP

markPREPComplete

InBASE

Description
All required PREP analysis is complete. Confirmation has taken place that LIVE matches BASE for items touched by this CCR (excluding differences introduced by CCRs in progress). The CCR is ready to be worked on in BASE environment.

Modified Items* ⓘ ⓘ

Impacted Areas* ⓘ ⓘ

Transition Notes ⓘ

Cancel

Save Changes

markPREPComplete



Transition: markPREPComplete

- Default transition for moving CCR forward, out of In_PREP.
 - Transition CCR once basics of the change thought through.
- Able to complete or modify required fields after clicking markPREPComplete.
- Will throw error if Modified Items and Impacted Areas are identical.

Destination: In_BASE



Quiz: Initiating a Transition

Question:

Which of the following is NOT in the process for performing the markPREPComplete transition?

- A. Click the markPREPComplete transition link to initiate the transition.
 - B. Complete the Modified Items and Impacted Areas fields, if necessary.
 - C. Click the markPREPComplete button to finalize the transition.
 - D. Click Edit to make markPREPComplete transition link visible.
-



Quiz: Initiating a Transition (cont.)

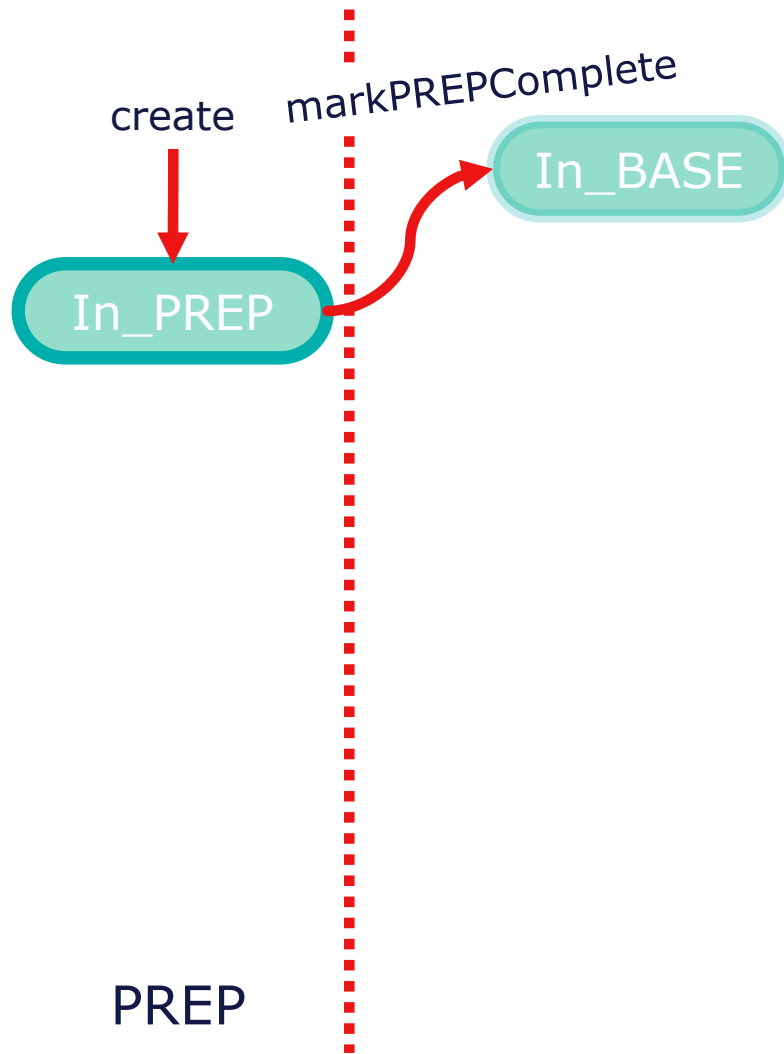
Answer:

D. Click Edit to make markPREPComplete transition link visible.

The edit icons in a CCR allow you to modify fields for that section of the CCR but have nothing to do with transitions. The transition links are always available in the navigation links at the top of the CCR.



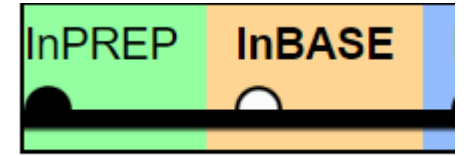
Reviewing the CCR Journey...



Part 3: CCR BASE Phase (Part 1)



State: In_BASE



- Required fields from PREP Phase available and editable.
- New BASE Phase pane appears.
- Tasks:
 - Documentation.
 - Make change in BASE.
 - Test change in BASE.

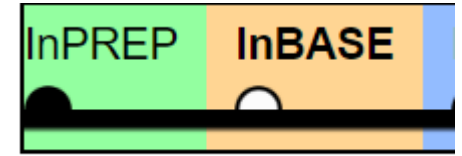


Documentation: 3 Planning Fields

- Make sure that Implementation Plan, Backout Plan and Testing Plan thorough and clear.
 - Other people should be able to follow them and perform all steps.
 - Organization should set best practices for level of detail necessary.
 - Example: can you assume knowledge of how to navigate management portal?
 - Could link to any appropriate procedure document instead of duplicating documentation.
- Plans should apply to all environments, indicating exceptions as necessary.



Documentation: 3 Planning Fields (cont.)



BASE Phase

Window Required For Move ?
No Impact

Implementation Plan ? 
1. Activate new license key in management portal

Backout Plan ? 
1. Activate old license key in management portal

Testing Plan ? 
1. Refresh licensing page in portal and new verify license key enabled with new expiration date.
2. Check Messages Log for an recent licensing alerts

Testing Steps Taken In BASE ? 
1. Licensing page shows new key active
2. No licensing related errors in Messages Log

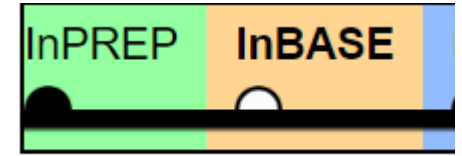


<env> token

- Use <env> token in URLs in 3 planning fields.
- <env> token in URLs expands to current phase.
 - <env>.myapp.mydomain.com directs to base.myapp.mydomain.com while in BASE phase.
 - Evaluated when click link; text in field always has <env>.



Testing Steps Taken In BASE



- Document results of testing in Testing Steps Taken In BASE.
- Include evidence of testing:
 - Link to pages used for testing in BASE.
 - Do not use <env> token because evidence specific to BASE.
 - Upload attachments.
 - Examples: Screenshots, log files.
 - Helps peer reviewer verify results of testing.



Transition: markBASEComplete

- Perform markBASEComplete transition when:
 - Implementation, testing, and documentation complete.
 - Ready for peer review.

Destination: BASE_Pending_Peer_Review



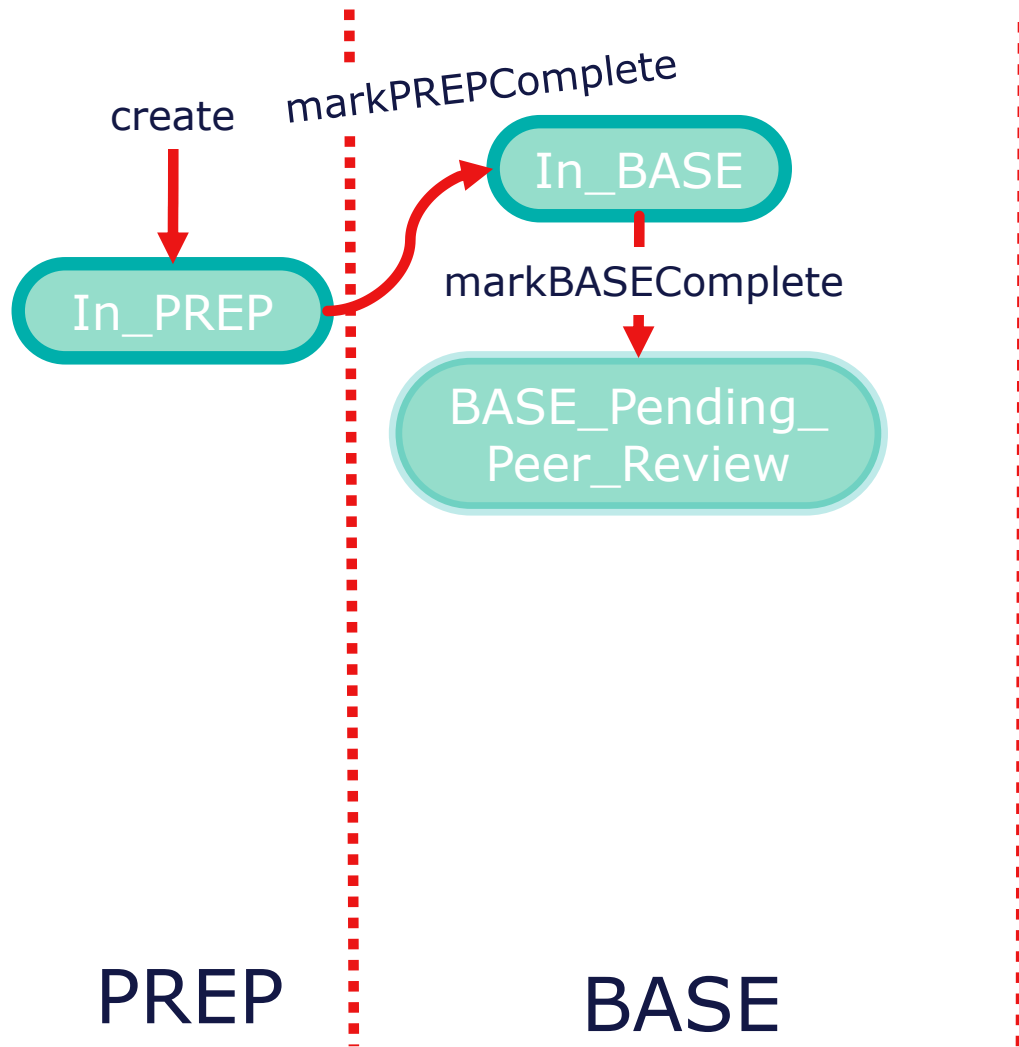
Transition: markBASEComplete (cont.)

- Window Required for Move set to indicate impact on LIVE users during implementation:
 - No Impact: Users will not notice change during implementation; deploy anytime.
 - Out of Hours: Users may have minor inconvenience; deploy when fewest users are active.
 - Downtime: No users can be on the system during implementation; plan for downtime window.

Destination: BASE_Pending_Peer_Review



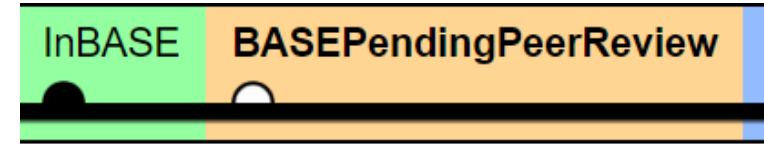
Reviewing the CCR Journey...



Part 4: Peer Reviews



State: BASE_Pending_Peer_Review



- CCR automatically reassigned to default peer reviewer for.
 - See ICC330 for details on default peer reviewers.
- passPeerReview transition not active for user who performed markBASEComplete.
 - Any other user from responsible organization can perform passPeerReview.



State: BASE_Pending_Peer_Review (cont.)



- Transition options:
 - failPeerReview – CCR should be amended for any number of reasons.
 - Sent back to owner.
 - Returns to In_BASE state.
 - passPeerReview – functionality, documentation and testing look complete and CCR can move forward.



Peer Reviews

- Vital part of workflow.
 - Increases quality of changes and documentation.
 - Reduces chance of errors.
 - Ensures at least 1 other person aware of change.
- May seem like overkill for trivial changes, but has saved sites from major crises.



Peer Review Best Practices

- Peer reviewer:
 - Should feel able to implement change based on documentation in CCR if original implementor unavailable.
 - Equally responsible for bad changes as person who made change.
- Ideally want as thorough of peer review as possible including verifying:
 - Clear and thorough documentation.
 - Ramifications of change.



Peer Reviewer Guidelines for BASE

- Title and Description clearly communicate nature and extent of change.
- Appropriate links to other systems and CCRs.
- Modified Items covers changes in Implementation Plan.
- All impacted areas identified.
- Implementation, Testing, and Backout plans complete and sufficient.
- Appropriate window required for move.
- Appropriate evidence in Testing Steps Taken in BASE.



Backwards Transition: failPeerReview





- Not a terminal action.
 - The CCR is moved backwards to In_BASE to get further work.
 - CCR is cumulative, so only the specific fix to the issue is required.
- Don't be afraid to fail a peer review.
 - Do not hold on to a CCR while owner makes quick corrections.
 - This only makes it confusing as to who is responsible for the change.
 - As a courtesy, it may be a good idea to let the owner know it is coming back and why prior to performing a failPeerReview.
- Transition Note required before confirming failPeerReview transition.

Destination: In_BASE



Transition: passPeerReview

- Review all fields carefully before performing passPeerReview.
- Optionally supply transition notes before confirming the passPeerReview transition.

BASE Phase
Window Required For Move ? No Impact
Implementation Plan ?  1. Activate new license key in management portal
Backout Plan ?  1. Activate old license key in management portal
Testing Plan ?  1. Refresh licensing page in portal and new verify license key enabled with new expiration date. 2. Check Messages Log for an recent licensing alerts
Testing Steps Taken In BASE ?  1. Licensing page shows new key active 2. No licensing related errors in Messages Log

Destination: BASE_Complete



Quiz: Peer Review

Question:

A peer reviewer can edit the documentation in a CCR. True or False?

Answer:

True.

However, it is a best practice for peer reviewers to only make minor changes, such as fixing a typo so that the implementer learns how to properly document changes and to make sure the implementor is aware of any major changes to the plans.



Exercise ICC310-2 and ICC310-3

Document, implement, test, and peer review.



Part 5: CCR BASE Phase (Part 2)



CCR Transition History

- List of transitions for this CCR, including transition details and any Transition Notes.
- Useful for debugging.

Transition History						
Transition History						Export as CSV
Date	User	Begin State	Transition	End State	Notes	
2023-05-30 16:17:35 -04:00	Jones, Lisa	BASE_Pending_Peer_Review	failPeerReview	In_BASE	Need more screenshots	
2023-05-30 16:14:36 -04:00	smith, john	In_BASE	markBASEComplete	BASE_Pending_Peer_Review		
2023-05-30 16:12:43 -04:00	smith, john	In_PREP	markPREPComplete	In_BASE		
2023-05-17 14:08:25 -04:00	smith, john		create	In_PREP		



Record History

- Collapsed by default.
- History of changes to fields.

Record History

Record History

Filter

Name	Time Stamp	Modified Field(s)									
smith,john	2023-05-30 16:17:35 -04:00	Owner >									
smith,john	2023-05-30 16:14:37 -04:00	Owner >									
smith,john	2023-05-30 16:14:36 -04:00	BackoutPlan, ImplementationPlan, TestingPlan, TestingStepsTakenInBAS... >									
smith,john	2023-05-30 16:12:43 -04:00	ImpactedAreas, ModifiedItems ▾									
<table><thead><tr><th>Property</th><th>Old Value</th><th>New Value</th></tr></thead><tbody><tr><td>ImpactedAreas</td><td></td><td>Functionality enabled by license key</td></tr><tr><td>ModifiedItems</td><td></td><td>License Key</td></tr></tbody></table>			Property	Old Value	New Value	ImpactedAreas		Functionality enabled by license key	ModifiedItems		License Key
Property	Old Value	New Value									
ImpactedAreas		Functionality enabled by license key									
ModifiedItems		License Key									
smith,john	2023-05-17 14:08:25 -04:00	ID [New Object], Active, BASEPeerReviewNotes, BASEPeerReviewer, Back... >									



Current State Documentation with CCR Record

- `<state_name>` Description and Activities.
 - In-place help documentation for what to do next.

In_BASE : Description and Activities

This state is where all of the work is completed to create the customization. Specifically, the iterative process of customization, testing, and documentation of the tests performed. When the CCR owner believes that the work is complete and is ready to be moved to TEST, they should markBASEComplete.

Target Activities for this State:

- Create the requested customization
- Unit test the customization (technical and/or applications specialists may be required for this)
- Functional test the customization (technical and/or applications specialists may be required for this)
- Create %UnitTest scripts wherever possible
- Create the Testing Plan which should be followed for the unit testing (manual and scripted) of the CCR in each environment
- Document the testing steps taken
- Document testing recommendations for the customer to take in the TEST environment (include in the Testing Plan)
- Document testing recommendations for the customer to take in the UAT environment (include in the Testing Plan)
- Create the Implementation Plan; this plan should be followed for the move into any environment (TEST UAT or LIVE); make sure to specify if a special step is required for an individual environment
- Create the Back-out Plan; this plan will be exercised should the CCR need to be reverted from any of the environments (BASE TEST UAT or LIVE)
- Check all code and application exports for this CCR into Perforce
- Assess the impact of implementing this CCR in LIVE; Out of Hours means the recommendation is to do the change when the fewest users are on the system; Downtime means that the users must be off of the system to implement the CCR



State: BASE_Complete



- The specifying, planning, thinking and initial doing is now complete!
- The remainder of the CCR workflow should follow easily based on what has already been documented.
- Must receive authorization before moving CCR and associated changes to TEST.



State: BASE_Complete (cont.)



- Customer has option to examine the change.
- Customer has 3 transition options.
 - markAcceptanceFailed.
 - Returns to In_BASE state.
 - Owner should follow same procedure as if it were a failPeerReview.
 - authorizeFutureMoveToTEST.
 - Rarely used.
 - Should progress changes quickly.
 - authorizeAndStartMoveToTEST.



Authorization

- Who authorizes the change to move into TEST, UAT, or LIVE?
 - A user...
 - From the organization for which the CCR was created.
 - List of authorizers is pulled from the user list in iService for that org.
- When can the change be moved?
 - Whenever the authorizer says it can be.



Authorization (cont.)

- Sometimes there is 'Express Authorization' to move all changes without asking.
 - This can be for a specific environment (e.g. TEST).
 - Or during a specific time during the project (e.g. before validation begins during implementation).
 - The user who provided the Express Authorization should be listed as authorizer on all CCRs.
- Authorization from the organization is also required to close a CCR.



Transition: authorizeAndStartMoveToTEST

- Only perform when Implementation Plan can be followed immediately!
 - Triggers workflow automations in Tier 1 and Tier 2 CCRs.
- Only required field is Test Move Authorized By.
 - Email sent to that user indicating their authorization recorded.
- Optionally specify Transition Notes.
 - Specify how received authorization.

Perform Transition authorizeAndStartMoveToTEST

BASE_Complete → authorizeAndStartMoveToTEST → PendingManualMoveToTEST

Description
Customer has given permission to move this CCR into the TEST environment immediately.

TEST Move Authorized By* ⓘ
smith, john

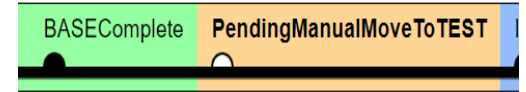
Transition Notes ⓘ

Cancel Save Changes authorizeAndStartMoveToTEST

Destination: Pending_Manual_Move_To_TEST



State: Pending_Manual_Move_To_TEST



- Complete all the steps according to the Implementation Plan.
- Update CCR fields with any surprises or deviation from plan.
- Perform the markMoveToTESTComplete transition once Implementation Plan is complete and before starting Testing Plan.



Transition: markMoveToTESTComplete

- Double-check Implementation Plan does not require additional clarification.

[\[View CCR in New Window\]](#)
These fields must be filled in for this transition.
Please ensure that all data is accurate

Implementation Plan

Apply blueberry-colored spray paint to Widget as per all instructions on can.
NOTE: Instructions on can omitted need to *open* can before use!

+U

The above fields must be filled in for this transition.
Please ensure that all data is accurate [Save Changes](#)

Transition Notes:

markMoveToTESTComplete

Destination: In_TEST



Quiz: Authorization

Question:

For a system owned by Today Robot, who will be listed in the dropdown for the list of authorizers during an authorizeAndStartMoveToXXXX or authorizeFutureMoveToXXXX transition?

- A. Only TodayRobot project managers.
- B. Only InterSystems project managers.
- C. Any InterSystems users.
- D. Any TodayRobot users.



Quiz: Authorization

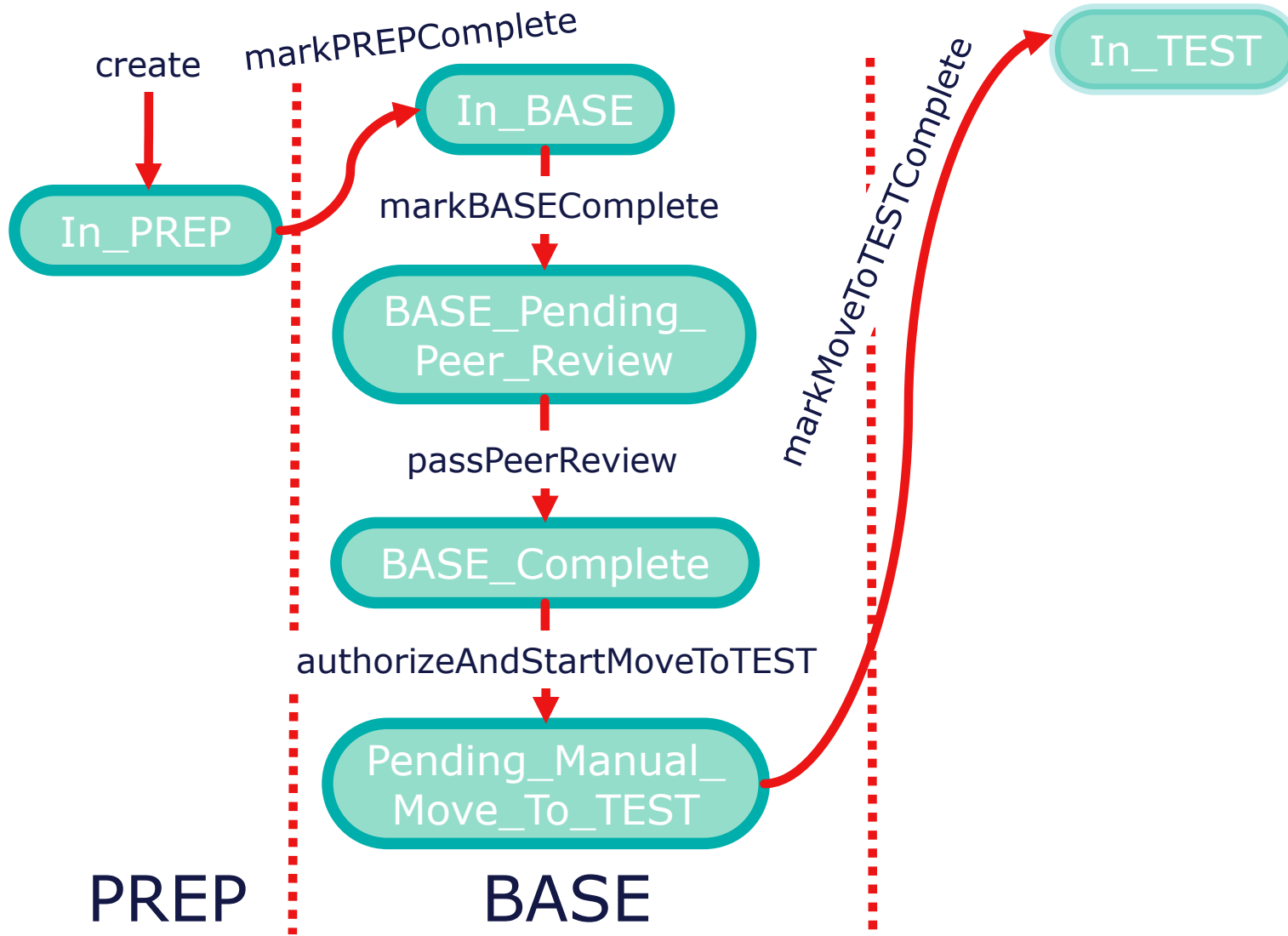
Answer:

D. Any Today Robot users.

Any user from the organization that owns the system (in this case Today Robot) will appear in the list of possible authorizers. Policy at an organization may restrict who should be specified but that is not enforced. The user specified will receive an email notification.



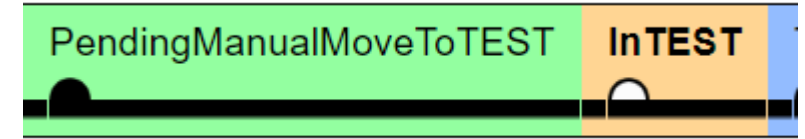
Reviewing the CCR Journey...



Part 6: CCR TEST Phase



State: In_TEST



- The CCR has been fully implemented in TEST.
- There are only actions for the Owner to perform:
 - Run the Testing Plan in the TEST Environment.
 - Document the results of the testing in Testing Steps Taken in TEST.
 - Remember to use attachments for logs, screenshots, output files, etc; clear evidence of success will make it easier for the Peer Reviewer!
- 2 transition options:
 - markValidationFailed.
 - markTESTComplete.



Backwards Transition: markValidationFailed

- Consider alternatives first.
 - Catch-up CCR instead of markValidationFailed may be better as discussed in ICC330.
- markValidationFailed moves CCR to Pending_Revert state.
- While in Pending_Revert state, follow Backout Plan.
- Perform markRevertComplete transition when Backout Plan complete to transition.

Destination: Pending_Revert



Transition: markTESTComplete

- Ensure Testing Steps Taken in TEST are complete.
- Ensure no updates required to other fields.
- Finalize transition to proceed.

The screenshot shows a web form titled "Transition: markTESTComplete". It contains several sections, each with a title, a help icon, and a save icon:

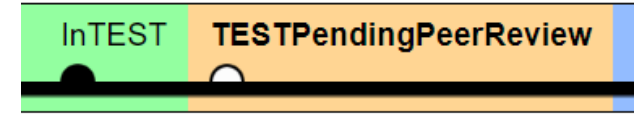
- Implementation Plan***: A text area containing "1. Activate new license key in management portal".
- Backout Plan***: A text area containing "1. Activate old license key in management portal".
- Testing Plan***: A text area containing two steps: "1. Refresh licensing page in portal and new verify license key enabled with new expiration date." and "2. Check Messages Log for an recent licensing alerts".
- Testing Steps Taken In TEST***: A text area containing two steps: "1. New license key activated." and "2. No licensing related errors in Messages Log."
- Transition Notes**: An empty text area.

At the bottom of the form are three buttons: "Cancel", "Save Changes", and "markTESTComplete".

Destination: TEST_Pending_Peer_Review



State: TEST_Pending_Peer_Review



- CCR automatically reassigned to default Peer Reviewer.
 - Remember, anyone from same organization other than user who performed the markTESTComplete transition can peer review.
- Peer Reviewer Guidelines for TEST:
 - Ensure Testing Steps Taken In TEST field contains sufficient evidence that the Testing Plan was thoroughly followed.
- Same options as BASE_Pending_Peer_Review.
 - failPeerReview.
 - Returns to In_TEST state.
 - passPeerReview.

Next Transition(s): [failPeerReview](#) *passPeerReview (?)*

Cust User Speed,Benjamin transitioned CCR into Peer Review, and may not perform a Peer Review on themselves. Another user must perform the Peer Review



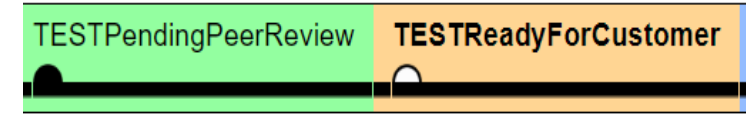
Transition: passPeerReview

- Review all fields carefully before performing passPeerReview.
- Optionally able to supply transition notes before confirming the passPeerReview transition.

Destination: TEST_Ready_For_Customer



State: TEST_Ready_For_Customer



- Customer has option to examine the change.
- Customer has 3 transition options:
 - markAcceptanceFailed.
 - Returns to In_TEST state.
 - Owner should follow same procedure as if it were a failPeerReview.
 - authorizeFutureMoveToLIVE.
 - authorizeAndStartMoveToLIVE.



Transition: authorizeFutureMoveToLIVE

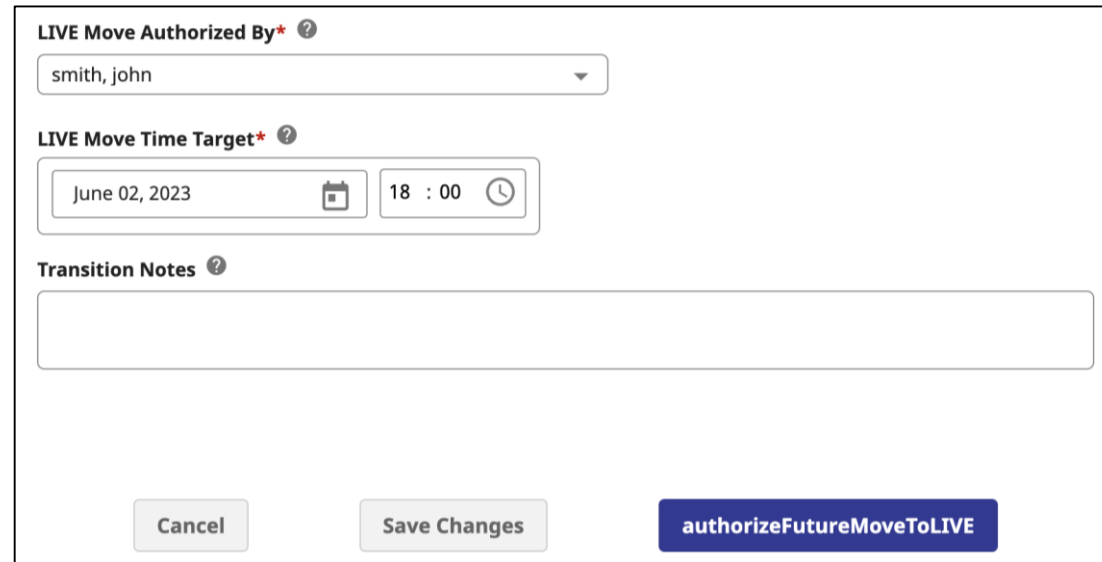
- Sometimes change cannot go into LIVE immediately.
- Use authorizeFutureMoveToLIVE to specify authorization received but for a specified date/time.
 - Still requires manual move at date/time!
- Future moves can also be specified for TEST or UAT.

Destination: Pending_Move_To_LIVE



Transition: authorizeFutureMoveToLIVE (cont.)

- Specify LIVE Move Time Target.
 - Can download calendar object.
 - Reminder email sent to owner and owner's manager (if owner is an InterSystems employee) 1 and 3 days before LIVE Move Time Target.



The screenshot shows a web form for authorizing a future move to a live environment. It contains three main sections: 1. 'LIVE Move Authorized By' with a dropdown menu showing 'smith, john'. 2. 'LIVE Move Time Target' with a date picker set to 'June 02, 2023' and a time picker set to '18 : 00'. 3. 'Transition Notes' with a large empty text area. At the bottom, there are three buttons: 'Cancel', 'Save Changes', and 'authorizeFutureMoveToLIVE'.

Destination: Pending_Move_To_LIVE



State: Pending_Move_To_LIVE

- Holding state for CCR that has been authorized to move to LIVE but can't be moved until a later time.
- Perform startMoveToLive transition when ready.
 - Moves CCR to Pending_Manual_Move_To_LIVE state.

Transition: authorizeAndStartMoveToLIVE

- If a Future move isn't needed, then use authorizeAndStartMoveToLIVE to move the CCR immediately.
- Bypasses Pending_Move_To_LIVE state.
- Make sure to note who provided authorization for the move to LIVE.
 - TIP: The Transition Notes can be used to indicate how and when authorization was communicated.
 - E.g. email, Teams, phone call, in person, etc.

Destination: Pending_Move_To_LIVE



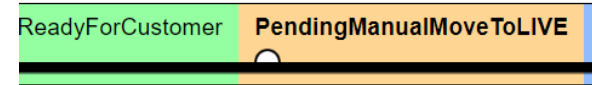
Transition: authorizeAndStartMoveToLIVE (cont.)

- Don't perform this transition until you are ready to perform the Implementation Plan immediately!

Destination: Pending_Move_To_LIVE



State: Pending_Manual_Move_To_LIVE





- Complete all steps according to Implementation Plan.
- Note Implementation Plan, Backout Plan, and Testing Plan move forward to the pane corresponding with current Phase.




Transition: markMoveToLIVEComplete

- Verify one last time that Implementation Plan is completely accurate.
- Perform markMoveToLIVEComplete transition once Implementation Plan complete but before Testing Plan started.
 - Moves CCR to LIVE phase.

Implementation Plan*  

1. Activate new license key in management portal

Transition Notes 

Cancel

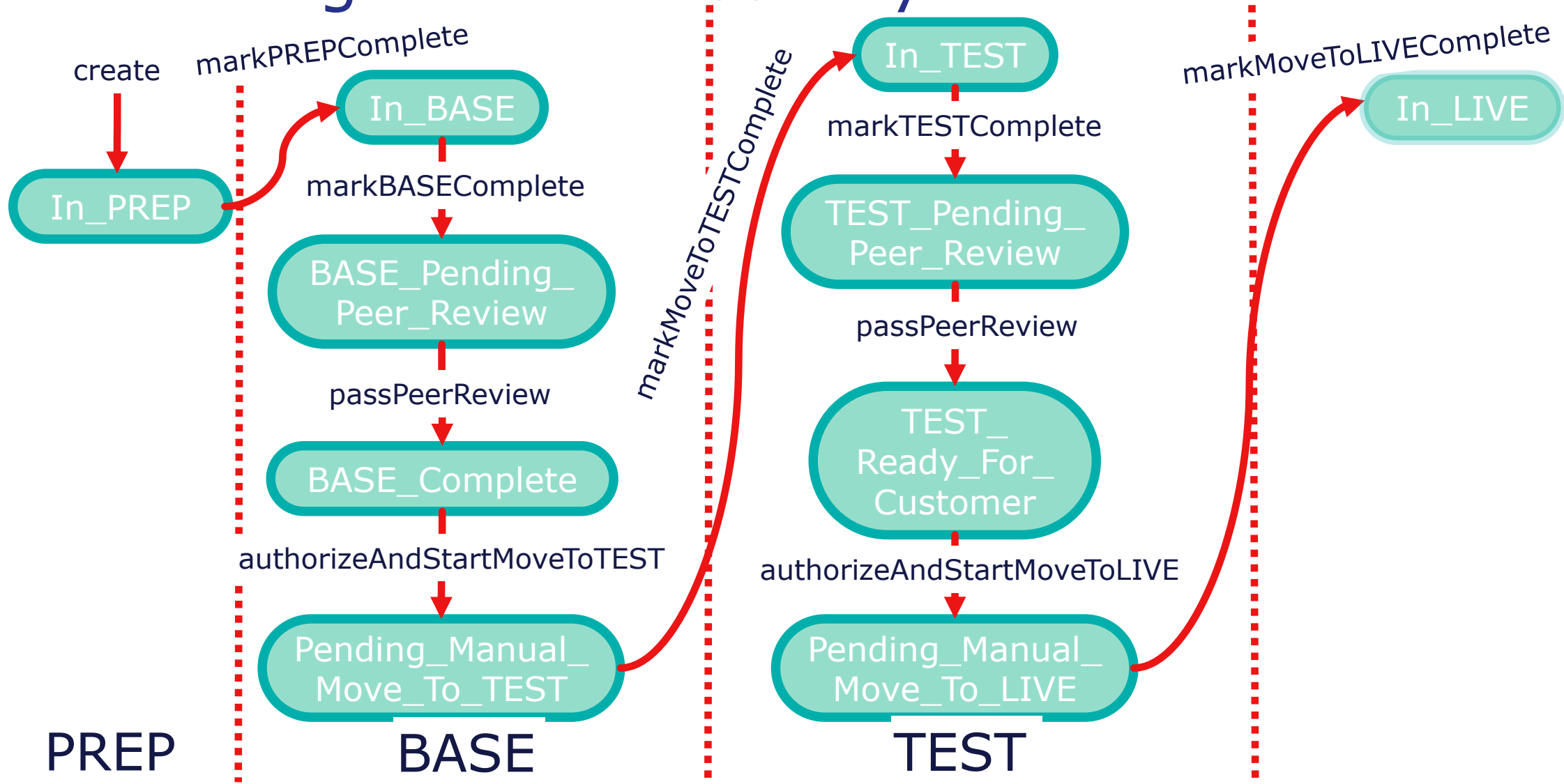
Save Changes

markMoveToLIVEComplete

Destination: In_LIVE



Reviewing the CCR Journey...



Quiz: TEST_Ready_For_Customer

Question:

Assuming a BASE > TEST > LIVE workflow, which of the following is the purpose of TEST_Ready_For_Customer?

- A. Holding state while the implementor awaits approval to move change to TEST.
 - B. Holding state while the implementor awaits approval to move change to LIVE.
 - C. Holding state while the implementor tests the change in TEST.
 - D. Holding state while the implementor makes the change in the customer's TEST environment.
-



Quiz: TEST_Ready_For_Customer (cont.)

Answer:

B. Holding state while the implementor awaits approval to move change to LIVE.

Approval to move to TEST is obtained during the BASE_Complete state. Implementation in TEST occurs during Pending_Manual_Move_To_TEST and testing for TEST environment takes places in the In_TEST state.



Quiz: markAcceptanceFailed

Question:

Using the workflow diagram, which of the following is true about markAcceptanceFailed when performed in the TEST_Ready_For_Customer state?

- A. The CCR moves to the In_TEST state.
- B. All changes must be backed out of all environments.
- C. The CCR must be cancelled.
- D. The CCR moves to the In_BASE state.



Quiz: markAcceptanceFailed (cont.)

Answer:

A. The CCR moves to the In_TEST state.

Nothing must be backed out. markAcceptanceFailed means the customer does not approve of the change and additional work is necessary. The implementer may decide whether to perform markValidationFailed and back out changes, or progress an additional catch-up CCR. It is usually preferable to progress a catch-up CCR (see ICC330 and ICC450).



Quiz: Scheduling a Move

Question:

If the customer wants a particular CCR to be moved into the LIVE environment at 6:00 PM on Friday and it is currently Tuesday, what is the right way to manage this timing in CCR?

- A. Leave the CCR in TEST_Ready_For_Customer until Friday at 6:00 PM.
 - B. Use the authorizeFutureMoveToLIVE transition and indicate a LIVE Move Time Target of Friday at 6:00 PM.
 - C. Use the authorizeAndStartMoveToLIVE transition to record authorization immediately, but don't run the Implementation Plan until 6:00 PM on Friday.
-



Quiz: Scheduling a Move (cont.)

Answer:

B. Use the `authorizeFutureMoveToLIVE` transition and indicate a LIVE Move Time Target of Friday at 6:00pm.

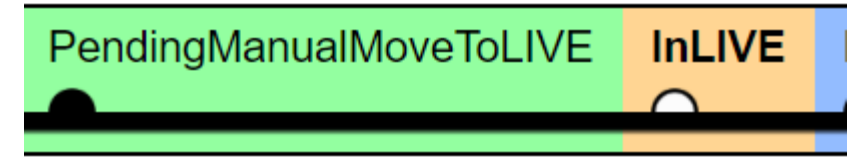
A risks missing the move window, and C wrongly indicates the move started early.



Part 7: CCR LIVE Phase



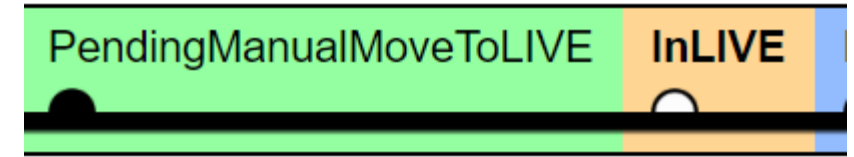
State: In_LIVE



- All that remains is executing the Testing Plan in LIVE.
 - Do quickly, if possible, to ensure the functionality is complete and as expected.
 - There may be some parts of the Testing Plan which should not be run in LIVE.
 - Make sure to look for any specific instructions for LIVE and follow them carefully.
 - E.g.: “LIVE: Do not create test patient data”.



State: In_LIVE (cont.)



- Collect documentation and evidence of the testing to attach to the CCR.
- 2 transition options:
 - markValidationFailed.
 - Moves to Pending_Revert state as previously discussed.
 - Hopefully not necessary at this point!
 - markLIVEComplete.



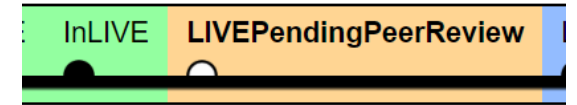
Transition: markLIVEComplete

- Record all testing steps and evidence in Testing Steps Taken in LIVE field.
- Take a last opportunity to review all three plan fields; ensure nothing is missing!
 - CCRs can be 'cloned' to repeat the same work again.
 - This can save a lot of time!
 - CCRs will be referenced again in the future.
 - Your future self will thank you for leaving a well documented CCR!!

Destination: LIVE_Pending_Peer_Review

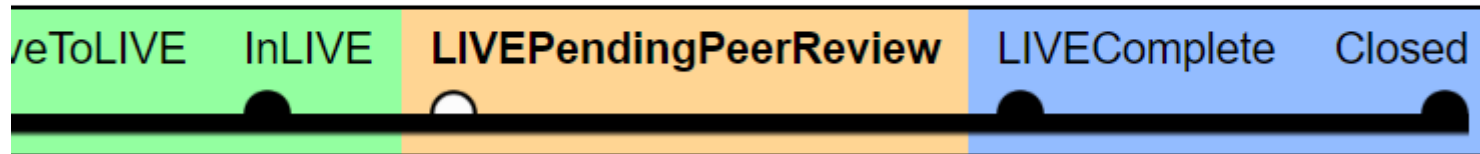


State: LIVE_Pending_Peer_Review



- Final peer review!
- Peer reviewer guidelines for LIVE:
 - Ensure Testing Steps Taken In LIVE field contains sufficient evidence of the Testing Plan being thoroughly followed.

Next Transition(s): failPeerReview passPeerReview



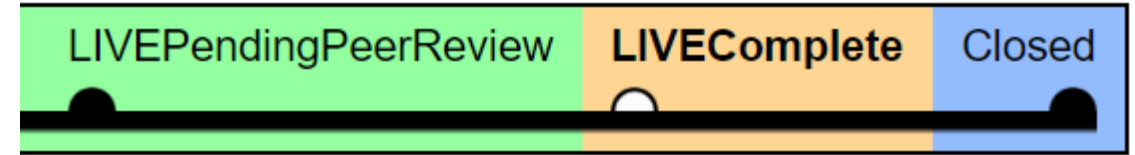
Transition: passPeerReview

- Review all fields carefully before performing passPeerReview.
- Optionally able to supply transition notes before confirming the passPeerReview transition.

Destination: LIVE_Complete



State: LIVE_Complete



- The last step: Get authorization from the System's owner (typically the customer) to close the CCR.
 - Everything else is complete.



Transition: authorizeClosure

- Customer confirms functionality in LIVE and gives permission to close the CCR.
- Remember Transition Notes can be used to indicate how authorization was given.

Close Authorized By* ?

smith, john ▼

Transition Notes ?

Authorization granted by telegraph:
-.-.-.-.- / -.-.-.-.-

Cancel Save Changes authorizeClosure

Destination: Closed



State: Closed

- CCR is Closed and no longer active.
- Details remain for future reference.
- Edit icons still active in case corrections need to be made.
- Clone transition can be used to easily replicate the documentation if the change is required again.
 - This could be for the same System or for a different System.



Quiz: Implementing Changes

Question:

For a BASE > TEST > LIVE workflow, in which THREE of the following states should you implement your change? Use the workflow diagram for help.

- A. In_PREP.
- B. In_BASE.
- C. In_TEST.
- D. In_LIVE.
- E. Pending_Manual_Move_To_TEST.
- F. Pending_Manual_Move_To_LIVE.



Quiz: Implementing Changes (cont.)

Answer:

B. In_BASE.

E. Pending_Manual_Move_To_TEST.

F. Pending_Manual_Move_To_LIVE.

Make and test changes in BASE while in the In_BASE state.

Since making a change in BASE is often an iterative process of making a change and testing, the workflow does not require 2 states. The rest of the workflow has different states for implementing and testing the change. Beyond BASE, only make changes to an environment in its corresponding Pending_Manual_Move_To_XXXX state.



Quiz: Testing Changes

Question:

For a BASE > TEST > LIVE workflow, in which THREE of the following states should you test the change and document the results of testing? Use the workflow diagram for help.

- A. In_BASE.
- B. In_TEST.
- C. In_LIVE.
- D. BASE_Complete.
- E. Pending_Manual_Move_To_LIVE.
- F. LIVE_Complete.



Quiz: Testing Changes (cont.)

Answer:

- A. In_BASE.
- B. In_TEST.
- C. In_LIVE.

Test the change in every environment and before peer review so that the peer reviewer can verify the documentation.



Quiz: Transition Notes

Question:

Transition notes are always optional. True or False?

Answer:

False. Transition Notes are only required if the transition sends the CCR 'backwards.'

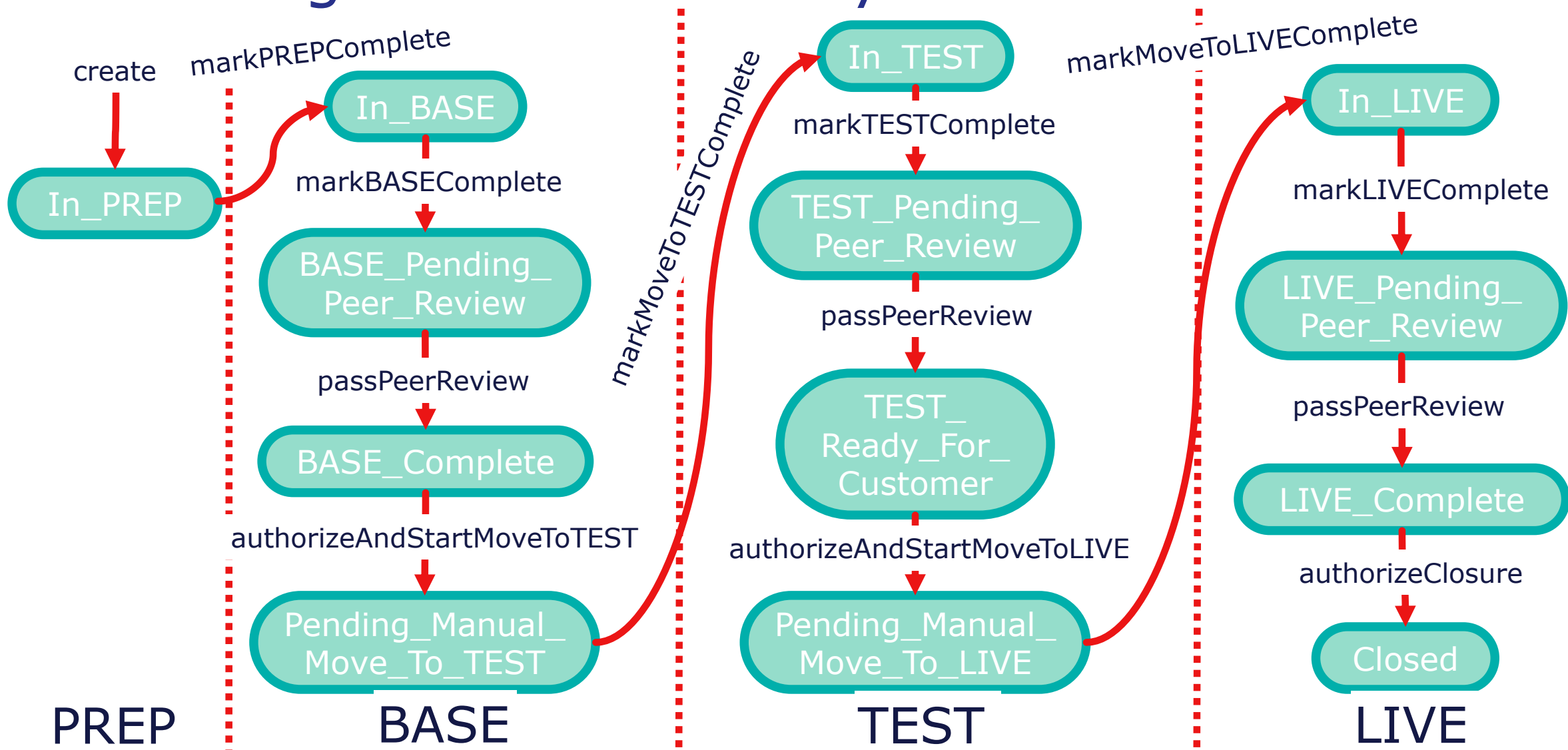


Exercise ICC310-4

Progressing CCR to Closed



Reviewing the CCR Journey...



Summary

- What are the key points for this module?

