



INTERSYSTEMS LEARNING SERVICES

# InterSystems Change Control



# **InterSystems Change Control**

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# ICC 530: CCR Tier 1 – Interoperability Components



# Overview

- Best practices.
- Handling differences between environments.
- Management Portal source control hooks.



# Best Practices

- Use Tier 0 CCRs when not feasible to maintain item in source control.
  - Makes change discoverable.
  - Enforces workflow such as peer reviews.
- Use source control when possible.
  - Tier 1 CCR.



# Developing Interfaces

- Use iterative process to configure new interfaces.
- Disable interfaces in development.
- Configure by progressing small, discrete CCRs to Closed.
- When interface ready for Go-LIVE, progress CCR enabling finished components.



# Product Versions

- Versions in slides refer to releases for InterSystems IRIS®.
- HealthShare versions do not correlate to InterSystems IRIS versions.



# Differences Between Environments

- Some configuration fields for Production components differ between environments.
  - File paths.
  - IP addresses.
- Production must be identical to integrate between environments.
  - Cannot make changes to Production directly in TEST, UAT, or LIVE.
- Solution is System Default Settings.



# System Default Setting

- Use to configure default values for settings of business components.
  - Alternative to specifying values of settings in Production definition.
  - Configure unique sets of default values in each Environment.
- Allows Production definition to be identical in all Environments.

BASE  
To\_Lab  
File Path = c:\**BASE**\In  
Failure Timeout = 15

TEST  
To\_Lab  
File Path = c:\**TEST**\In  
Failure Timeout = 15



# Creating System Default Settings

- Configure > System Default Settings.

**System Default Setting** [Save] [Cancel] [Reset] [Expand Tree] [Contract Tree]

Use the form below to create a new System Default  
Setting in namespace TRAINING

Production  
\*  
Required. Use \* to match all.

Item Name  
BadMessageHandler  
Required. Use \* to match all.

Host Class Name  
\*  
Required. Use \* to match all.

Setting Name  
FilePath  
Required.

Setting Value  
C:\test\output

Description

Deployable

Can use \* to match all.

Drag and drop setting from tree or select from Setting Name dropdown.

- Production Settings
  - ABC\_HL7FileService
    - Class
    - Settings
  - Production Settings
    - Demo.ComplexMap.SemesterProduction
    - Demo.DICOM.Production.AsyncRouter
    - Demo.DICOM.Production.Modality
    - Demo.DICOM.Production.Router
    - Demo.DICOM.Production.Storage
    - Demo.DICOM.Production.StorageFile
    - Demo.DICOM.Production.StorageLocal
    - Demo.DICOM.Production.WorkList
    - Demo.Dashboard.Production
    - Demo.HL7.MsgRouter.Production
- Foreground
- LogTraceEvents
- PoolSize
- RegistryID
- FilePath
- FileSpec
- ArchivePath



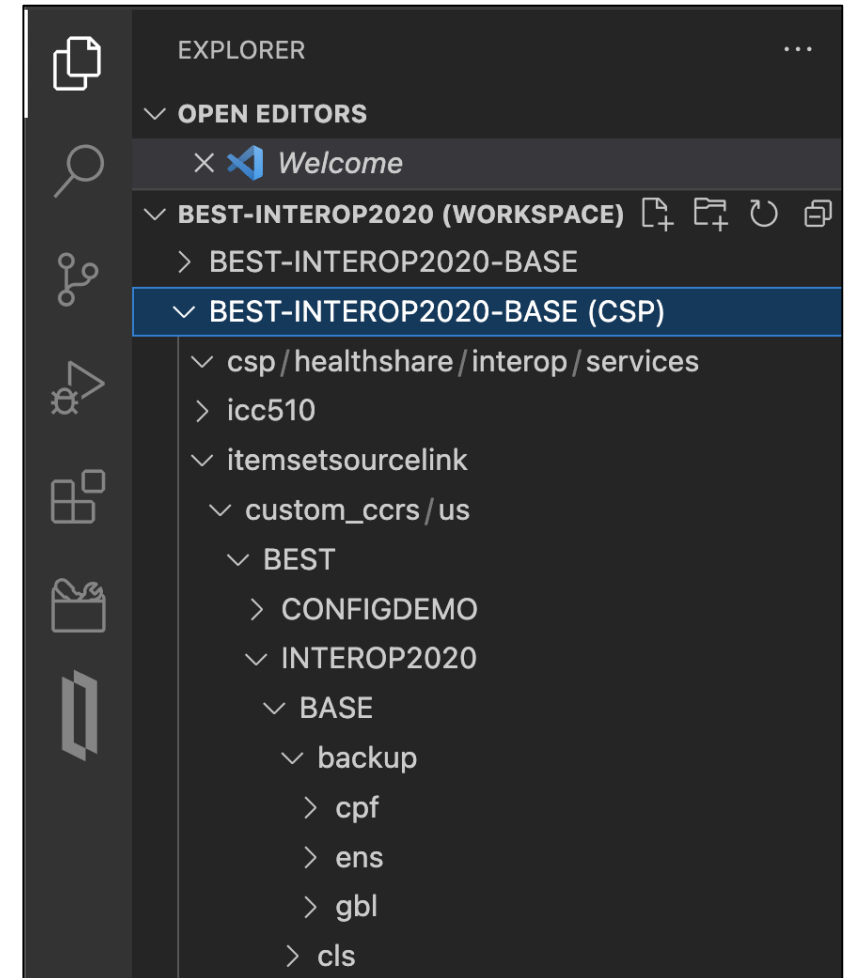
# Export System Default Settings

- Source control menu > CCR Controls > Export Default Settings > Choose Production > Export.
- Exports to /backup subdirectory.
- Can bundle and upload in BASE only.
  - Add to source control using itemsetsourcelink web application in IDE.



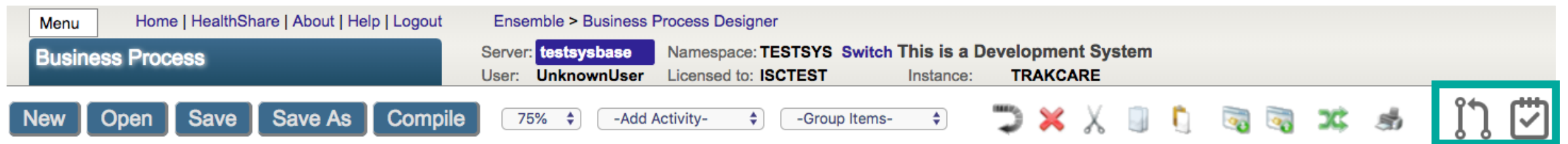
# Add Exported File to Source Control

- Export file to source workspace.
- To find file in:
  - VS Code – ObjectScript:
    - From Explorer > *itemsetsourcelink\_system* > *custom\_ccrs* > ...
  - In Studio:
    - From namespace view > CSP Files > *itemsetsourcelink\_system* > *custom\_ccrs* > ...
- Right-click file > Source Control > Add To Source Control > Yes.
- Bundle and upload to a CCR.



# Management Portal Source Control Hooks

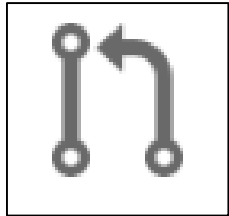
- Many pages in Management Portal have embedded hooks.
- Only visible in source control configured namespaces.
- Behavior same as source control menu in IDE.
- All items modified using Management Portal hooks automatically imported on ItemSet Deployment.



# Management Portal Source Control Hooks (cont.)

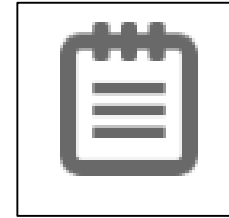
- Commands.

- Add to source control.
- Checkout.
- Undo checkout.
- CCR controls.
- Diff.



- Outputs.

- View unread output of control.



- All source control output has been viewed.



# Pages with Hooks

- Production.
- Data Lookup Tables.
- Business Processes.
- Data Transformations.
- Business Rules.
- Record Maps.
- Complex Record Maps.
- HL7 v2 Custom Schemas.
  - Only visible if privileged to edit.

<b>Configure »</b>	Production
Build »	Business Partners
View »	Credentials
List »	Schedule Specs
Monitor »	Data Lookup Tables
Manage »	System Default Settings
Interoperate »	Enterprise Systems
Test »	Public-Service Registry
	External-Service Registry
	Message Bank Link

Configure »	Business Processes
<b>Build »</b>	Data Transformations
View »	Business Rules
List »	Record Maps
Monitor »	CSV Record Wizard
Manage »	Complex Record Maps
Interoperate »	
Test »	



# Production Decomposition

- Allows users to checkout individual components of Production.
  - Without decomposition, only able to checkout entire Production.
- Cannot include custom code in Production class definition.
  - Instead, make Production inherit from super class that contains custom code.
- Can check out Production in IDE to edit XML.
  - Requires no components checked out.
- Recommend client tools updated since December 10, 2024.



# How To: Enable Production Decomposition with Existing Productions

1. Progress any active CCRs changing Production to LIVE.
2. Create a Tier 1 CCR to document enabling Production Decomposition.
3. Implementation Plan:
  - BASE only:
    - Do `Configure^%buildccr`
    - Accept defaults until reach prompt: Decompose Productions in Source Control to handle Business Host and Production settings individually?
    - Enter Yes to Decompose Productions.
    - Enter Yes to the following 2 prompts to decompose existing Productions.
  - Non-BASE environments: Deploy ItemSet.



# How To: Enable Production Decomposition with Existing Productions (cont.)

4. Bundle and upload changes to your CCR.

5. Progress CCR through to Closed.

- Must be pushed to LIVE before changes to Production can begin.



# How To: Enable Production Decomposition **without** Existing Productions

## 1. Create a Tier 0 CCR to document enabling Production Decomposition.

- Implementation Plan for all Environments:
  - `Do Configure^%buildccr`
  - Accept defaults until reach prompt: Decompose Productions in Source Control to handle Business Host and Production settings individually?
  - Enter Yes to Decompose Productions.
  - Enter No to the following prompt to decompose existing Productions.

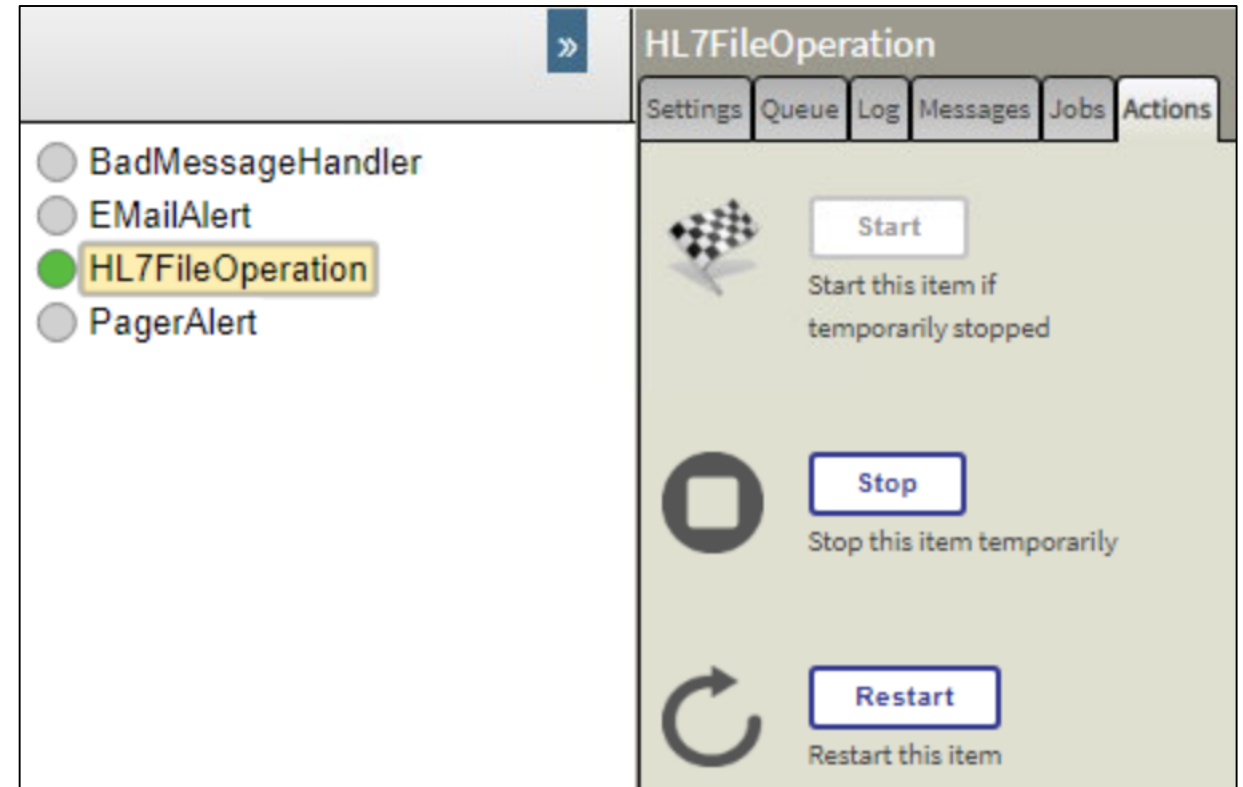
## 2. Progress CCR through to Closed.

- Must be pushed to LIVE before changes to Production can begin.



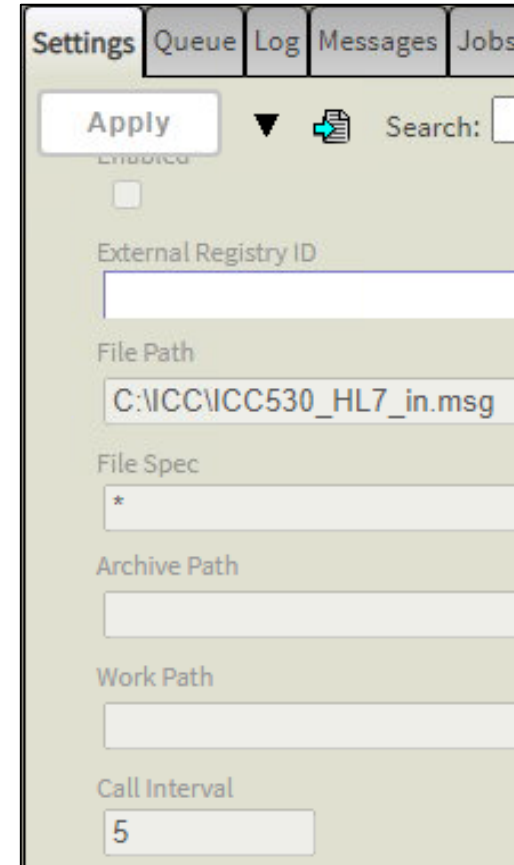
# Productions: Temporarily Start, Stop, Restart

- Normally, double-click component to enable, disable, or restart.
  - Changes Production class definition, therefore:
    - Cannot do in TEST/UAT/LIVE.
    - Requires checkout in BASE.
- Able to temporarily stop, start, or restart components.
  - Select component > Actions.
  - Does not require unlocking environment or check out.
  - Cannot temporarily start if disabled.



# Business Component Setting Labels (v2019.4 – v2021.1)

- Fields greyed out when Production read only.
- Must checkout Production in BASE to see color coding.
  - Color coding indicates source of value.
- Cannot see color coding in TEST/UAT/LIVE because cannot checkout Production.



The screenshot displays a software interface with a tabbed menu at the top containing 'Settings', 'Queue', 'Log', 'Messages', and 'Jobs'. The 'Settings' tab is active. Below the tabs, there is an 'Apply' button, a dropdown arrow, a document icon, and a search field. The main area contains several input fields, some of which are greyed out:

- Enabled:** A checkbox that is currently unchecked.
- External Registry ID:** An empty text input field.
- File Path:** A text input field containing the value 'C:\ICC\ICC530\_HL7\_in.msg'.
- File Spec:** A text input field containing the value '\*'.
- Archive Path:** A greyed-out text input field.
- Work Path:** A greyed-out text input field.
- Call Interval:** A text input field containing the value '5'.



# Summary

- What are the key points for this module?



# Do Exercise 530-1 and 530-2

