

Business Logic Function	Description	Configurable	Precondition/Followup	Comments
Change Records are unique for each Internal Release value	You may create only a single Change Record for each Internal Release value. Planned For is not required on a Change Record.	No	com.ibm.stg.rtc.ext.stgdefect.advisors.PreventMultipleCRSameInternalReleaseAdvisor com.ibm.stg.rtc.ext.stgdefect.advisors.PreventCRReleaseEditAdvisor	
All child Defects must be resolved before the parent Defect can be fixed	All child Defects must be either Verify or Closed state before the parent can be moved to Fixed state.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChildrenStatesAdvisor	
All Change Records must be closed before the parent Defect may be closed	All child Change Record Work Items must be closed before their parent Defect can be closed.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChildrenStatesAdvisor	
All Change Records must be in NoChange, Canceled, Verify, or Closed state when fixing a Defect	All Change Records must be NoChange, Canceled, Verify, or Closed state when fixing a Defect.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChildrenStatesAdvisor	This is a duplicate of row 3
All Change Records must be in NoChange, Canceled, or Closed state when closing a Defect	All Change Records must be in NoChange, Canceled, or Closed state when closing a Defect.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChildrenStatesAdvisor	
Ensure all Change Records are Closed, NoChange or Canceled when these actions are run on the parent Defect: MoreInfo, Reject, Reopen	If the parent Defect is not Closed, and these actions are performed (MoreInfo, Reject, or Reopen), ensure that all child Change Records are either Closed, NoChange, or Canceled.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChildrenStatesAdvisor	
Automatically set Defect and Change Record owners, if possible	If a Defect or Change Record is submitted with the owner left unassigned, use these steps to try to assign the owners: 1) Use the category owner as defined in the project's metadata; 2) Set the Change Record owner to the parent Defect owner; 3) If the parent Defect owner is unassigned, set the Change Record owner to the category owner for the Change Record; 4) If the Change Record owner is still unassigned, set the Change Record owner to the category owner as specified in the metadata.	No	com.ibm.stg.rtc.ext.advisors.DefaultOwnerAdvisor	Ignore category owners (1, 3, and 4), they are not covered in this example. 2) is still valid and enabled by default
Validate built-in attachments are less than 5MB	Ensure all attachments are less than 5MB in size.	Yes		This is done by an Advanced Property on the server admin web page.
Prevent user from removing others' subscriptions	Any user can add other users to Work Item subscription lists, but can only remove themselves.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSubscriberRemovalAdvisor	
Once a Change Record is linked to a Defect, the link cannot be removed	Change records cannot be moved between Defects. Deleting the link from the Defect or the Change Record is prevented.	No	com.ibm.stg.rtc.ext.stgdefect.advisors.PreventCRRemovalAdvisor	
Defect must be in working state to link with Change Records	Change Records can be linked to Defects only if the Defect is in Working status.	No	com.ibm.stg.rtc.ext.stgdefect.advisors.RequireCRParentAdvisor	We don't recommend changing this configuration, but if you want to allow Change Records on additional work item types, this is where you'd add them
There may only be one Change Record for any release for the parent Defect, and the release cannot be changed	A Change Record's Internal Release value cannot be set to a value which is already used by another Change Record for that parent Defect. Once the Change Record is submitted, its Internal Release value may not be changed.	No	com.ibm.stg.rtc.ext.stgdefect.advisors.PreventMultipleCRSameInternalReleaseAdvisor com.ibm.stg.rtc.ext.stgdefect.advisors.PreventCRReleaseEditAdvisor	This is a duplicate of row 2
Defect RejectFix action is not allowed if Change Record is in Verify or Closed status	The RejectFix action on a Defect (Verify -> Working) is not allowed when associated Change Records are in either Verify or Closed states. (The precondition which requires the Change Record to be resolved before Defect must also be enabled.)	Yes	com.ibm.stg.rtc.ext.advisors.RequireChildrenStatesAdvisor	
Defects with active Change Records cannot be moved to other projects	Defects cannot be moved to other projects in the repository if the Defect has associated Change Records in either Open, Working, or Verify states.	No	com.ibm.stg.rtc.ext.stgdefect.advisors.PreventMoveIfCRAActiveAdvisor	
Make Discussion field required	Text must be added to the Defect's Discussion field when the following actions are done: Reject, MoreInfo, Reopen (from Rejected and MoreInfo), Closed.	Yes	com.ibm.stg.rtc.ext.advisors.RequireCommentAdvisor	
Setting Blocking checkbox requires comment	If the Blocking checkbox is set, a comment describing the blocking condition must be added. Use of this checkbox has no effect on the workflow of the Work Item.	Yes	com.ibm.stg.rtc.ext.advisors.RequireBlockingCommentAdvisor	
Move Change Record state to Working when a change set is associated with it.	When a change set is associated with a Change Record, the state of the Change Record automatically moves to Working.	Yes	com.ibm.stg.rtc.ext.participants.WIActionOnChangeSetAssociation	
Ensure all change sets associated with a Change Record are complete before the Change Record can move to CodeComplete, Verify, Closed, Canceled or NoChange state	All change sets associated with a given Change Record must be completed before the Change Record can move to CodeComplete, Verify, Closed, Canceled or NoChange state. Change sets complete automatically when delivered to a stream.	No	com.ibm.stg.rtc.ext.advisors.RequireChangeSetsCompleteAdvisor	
Change sets may be associated with Remote Change Requests	A change set may be associated with a Remote Change Request in order to deliver changes.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChangeSetLinkAdvisor	This is similar to the built-in precondition on deliver "Require Work Items and Comments" except it treats remote Change Requests as work items rather than comments.

Change sets must be associated with a work item	A change set must be associated with a work item before delivering that change set. In RTC 3 that work item could be any type except STG Defect. In RTC 4, the change set can be associated with any type of work item, if the STG Defect / automatic Change Record functionality is enabled.	Yes	com.ibm.stg.rtc.ext.advisors.RequireChangeSetLinkAdvisor	This is similar to the built-in precondition on deliver "Require Work Items and Comments" except it treats remote Change Requests as work items rather than comments.
Prevent parent defect category change with active children	If an STG Defect with child Change Records has the defect's category changed, both the STG Defect and Change Record's category are changed, but only if all Change Records are not active (Canceled, Closed, NoChange).	No	com.ibm.stg.rtc.ext.stgdefect.advisors.PreventFiledAgainstEditAdvisor	
TABLE 2 STARTS HERE				
A Defect may not be closed if it has Verification Approvals pending	Ensure all Approvals of type Verification for a Defect are either Approved or Rejected (not Pending) before the Defect can move to Closed state.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Remove verification approvals from Defect when the Defect is canceled	When a Defect is Rejected or Closed with a resolution code of Cancel, all auto-generated Approvals of type Verification will be removed.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Update subscription lists when owners change	If a Defect's owner changes, add the new owner into the subscription list of both the Defect and any children Change Records. Do not remove the old owner from any subscription lists.	Yes	com.ibm.stg.rtc.ext.stgdefect.participants.SubscribeOwnerToParentOrChildrenParticipant	
If a canceled Defect is re-opened, new verification approvals will be re-created as defined in project configuration metadata	When a Defect is canceled, any Verification Approvals are removed. If the Defect is re-opened, Verification Approvals will be re-created as defined in the project's configuration metadata (not necessarily on the re-open action).	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Auto-close the Defect if all child Change Records are in Closed, Canceled, or NoChange status	Defect will automatically be closed if: * Defect is in Verify status * All Verification Approvals are either Accepted or Rejected (not Pending) * All Change Records are in either Closed, Canceled, or NoChange status.	Yes	com.ibm.stg.rtc.ext.participants.ActionOnParentWhenChildWorkItemInStatesParticipant	
Move Defect to Verify status if all Change Records are in either Closed, Canceled, or NoChange status	Move Defect to Verify status if: 1) Defect has been accepted; 2) All Change Records are in either Closed, Canceled, or NoChange status.	Yes	com.ibm.stg.rtc.ext.participants.ActionOnParentWhenChildWorkItemInStatesParticipant	
Create a Verification Approval when the Defect is moved to Fixed status	Part of approvals configuration: create a verification approval when the Defect is moved to Fixed status.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Check for Approvals configuration change due to release change	If the current iteration changes, the Approvals configuration can be different for the new current iteration. If the new configuration is different, the Approvals will be re-generated according to the new iteration's configuration.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Ensure Approvals are approved before Fix action is allowed on Change Records	Ensure that all Change Record Approvals are Approved before allowing the Change Record to close.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Automate subscription lists	Maintain the subscription lists for Defects and Change Records: 1) Add both submitter and owner as Defect subscribers; 2) Add parent Defect owner as Change Record subscriber; 3) Add both submitter and owner as Change Record subscriber	Yes	com.ibm.stg.rtc.ext.stgdefect.participants.SubscribeOwnerToParentOrChildrenParticipant	Similar to row 30
Close the Change Record if the last verification approval is either Approved or Rejected	Once a Change Record is in Verify state, close the Change Record when its last verification approval is either Approved or Rejected.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Prevent editing of auto-generated Approvals	Prevent the changing of the name and type of auto-generated Approvals. Default configuration allows only Product Owners to change an Approval's due date or approver list.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Prevent editing of Planned For Language ID or Operating System values	Prevent the Planned For Language ID or Operating System values from being edited after the Change Record is submitted.	Yes	com.ibm.stg.rtc.ext.advisors.PreventFieldEditAdvisor	
Prevent a change set from being added to a Work Item	Prevent a change set from being added to a Work Item if in a specific state.	Yes	com.ibm.stg.rtc.ext.advisors.PreventChangeSetAdvisor	
Prevent change sets from being removed from a Work Item	Prevent change sets from being removed from a Work Item if in a specific state.	Yes	com.ibm.stg.rtc.ext.advisors.PreventChangeSetRemovalAdvisor	

Configuration of new iteration types	New iteration types, with a different set of behaviors, can be configured.	Yes		Iteration types are an advanced concept of RTC. If you wish to configure business logic based on iteration types, keep in mind you have to copy all the behavior to the new iteration type because they don't build on each other.
Make Severity Justification field required	The Severity Justification field can be required based on the severity level selected.	Yes	com.ibm.stg.rtc.ext.stgdefect.advisors.RequireAttributeBasedOnOtherEnumValueAdvisor	
Make Priority Justification field required	The Priority Justification field can be required based on the priority level selected.	Yes	com.ibm.stg.rtc.ext.stgdefect.advisors.RequireAttributeBasedOnOtherEnumValueAdvisor	
Auto-close Defect if all Verification Approvals have been verified	When the Defect is in Verify state and all Verification Approvals associated with the Defect have been approved, the Defect will automatically close.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Move Defect to Verify state when all ChangeRecords are closed	When all ChangeRecords associated with the Defect are in Closed state (not Canceled or NoChange), the Defect will move to Verify state.	Yes	com.ibm.stg.rtc.ext.participants.ActionOnParentWhenChildWorkItemInStatesParticipant	
Move Defect to Working state when Verification Approval is rejected	When a Verification Approval is rejected, the associated Defect moves from Verify to Working state.	Yes	com.ibm.stg.rtc.ext.advisors.PreventSTGApprovalChangeAdvisor com.ibm.stg.rtc.ext.advisors.RequireSTGApprovalsAdvisor com.ibm.stg.rtc.ext.participants.CreateSTGApprovalsParticipant com.ibm.stg.rtc.ext.participants.PerformActionFromApprovalsParticipant com.ibm.stg.rtc.ext.participants.RemoveSTGApprovalsParticipant	These five approval precondition/followup actions are very tightly integrated. If you change the configuration of one, you must change the configuration of the other four to match. In other words, the xml configuration of all five should be equal at all times.
Default Change Record summary from parent	If left blank, new Change Record summary will be "CR:" plus the summary from the parent work item.	Yes	com.ibm.stg.rtc.ext.advisors.DefaultSummaryAdvisor	
Approver list configuration	The parent work item submitter and owner are configured to be included in an child work item's automated approval approver list. For existing pending approvals, the approver list will only be updated when a new parent/child link is created or when the owner is modified on the parent.	Yes	com.ibm.stg.workitem.configuration.approverlists	This is a configuration-data.xml element not a precondition, but it can be configured in a similar fashion