Hot Checkout (HCO) Software Requirements

Contents

[Roles 3](#_Toc349569432)

[Operability Manager 3](#_Toc349569433)

[Group Leader 3](#_Toc349569434)

[Technician 3](#_Toc349569435)

[User Interfaces 4](#_Toc349569436)

[Category Detail 4](#_Toc349569437)

[Component Detail 4](#_Toc349569438)

[Component Status Grid 4](#_Toc349569439)

[Readiness Status 5](#_Toc349569440)

[Beam Destinations 5](#_Toc349569441)

[Group Responsibilities 5](#_Toc349569442)

[Programmatic Interfaces 5](#_Toc349569443)

[Use Cases 6](#_Toc349569444)

[Static Data 7](#_Toc349569445)

# Roles

## Operability Manager

Responsibilities:

1. Monitor HCO progress.
2. Assign group responsibilities to categories
3. Assign individuals as Responsible Group Leaders
4. Verify components in correct beam destinations
5. Add components that are not automatically maintained (via CED or other)
6. Remove components that are not automatically maintained (via CED or other)

## Group Leader

Responsibilities:

1. Provide final certification of "Ready" state of each component within a group's responsibility.
2. Provide a brief description of what the group does in order to determine the readiness state of components in each category and optionally provide a PDF checklist of the process.
3. Notify operability managers of components requiring HCO.

## Technician

Responsibilities:

1. Check-out components and set the readiness state of each component within a group's responsibility to either "Checked" or "Not Ready"

# User Interfaces

## Category Detail

Provides all information about a category.

* Name
* Name of Parent Category w/link to
* Names of Child Categories w/links to
* List of groups required to perform HCO showing category components:
  + Description of what the group does for HCO for this type of component
  + Link to PDF of group HCO checklist for category (if applicable)
* Names of Components in Category with links to component detail pages

## Component Detail

Provides all information about a component. This includes:

* Name
* Region
* The listing of beam destinations that require it
* List of groups required to perform HCO showing for each:
  + Current status including timestamp and user who set
  + Comment of current status if available
  + Link to prior statuses (including timestamps, comments, etc.)
  + Description of what the group does for HCO
  + Link to PDF of group HCO checklist for component category (if applicable)

## Component Status Grid

Table of components filtered by category, region, beam destination, and group which allows users to quickly view and update component status in bulk. The user chooses the state and enters an optional comment. The application automatically records a timestamp and the identity (username or staff\_id) of the individual performing the action. Provides access to the prior history of status changes and corresponding comments when requested.

## Readiness Status

Hierarchical Tree-like view consisting of categories and components filtered by beam destination, region, and group which allows users to quickly determine overall HCO status and drill down to discover the specific categories and components that are not ready. The overall status is determined by examining the status of each component and category and setting the parent status to the least ready state of its children. This formula is applied recursively starting from the bottom of the tree. The components in the tree provide links to status change history and to a form for updating the component's status.

## Beam Destinations

To the extent possible, the beam destinations for which a component is required will be populated based on the components region, or if applicable, the CED zone(s) where it is located. For components where this automatic population is not possible or not complete, there will need to be an interface for manual setting. The manual interface will be implemented as a grid of components and beam destinations filterable by category and region that allows users to configure the set of beam destinations that each component is associated with.

## Group Responsibilities

Grid of groups and categories which allows users to configure which groups are associated with a particular category of components. The user provides a description of what actions are undertaken by the group to ascertain the readiness of components in the category. The user may optionally upload a PDF document containing the checklist the technicians are to follow in order to declare a component checked.

The order in which groups must evaluate components in a category is important, so for each category, a numeric "weight" value is assigned to each group that must perform hot checkout. Lower-weighted groups must complete their checkout tasks and validate a component as "Ready" before higher weighted groups will be permitted to do so.

# Programmatic Interfaces

The Accelerator Readiness Review application used by EHS&Q will need to draw information from the HCO system using a web-based API.

# Use Cases

1. Technician - Check Component
   1. Marks components as either "Checked" or "Not Ready"
2. Group Leader - Certify Component
   1. Marks components as either "Ready", "Checked", or "Not Ready"
3. Operability Manager - Monitor HCO Progress
   1. Presents HCO status at 8:00 meeting
   2. Uses information from roll-up to plan work, identify hold-ups
4. Operability Manager - Assign Group Responsibilities
   1. For each category of component, specify which groups must sign-off
5. Operability Manager - Assign Beam Destinations
   1. Manually maintain the components/beam destination mapping for those components and beam destinations where automatic maintenance via the CED and other data sources is not possible.
6. Operability Manager - Add Component
   1. Manually maintain the components which cannot be automatically maintained via the CED and other data sources.
7. Operability Manager - Remove Component
   1. Remove components no longer requiring HCO
8. Accelerator Readiness Review
   1. Programmatically retrieves….

# Static Data

The following are not modifiable from the web application:

1. Regions
2. Beam Destinations
3. Groups
4. Statuses
   * Ready, Checked, Not Ready
5. Bypass Status
   * "Ready, but…"
   * Official source is ABIL database
   * ABIL will have to use same component names or ids for this to work.