



Intergraph Smart Completions User Guide

Supervisor

Version 2
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Preface

The user guide is intended for a “Supervisor” who WILL be able to complete certificates, approve/close punch list items and close out completed tasks. They WILL NOT be able to develop work packages, assign tasks, import data or develop task models or test profiles.

A Supervisor should have the following know-how:

- Understand Engineering principals about the various disciplines (e.g. MECH, ELEC, INST, PIPING, CABLE, STRUCTURAL, CIVIL, DCS/PLC)
- Understand Control loops, tagging, device assignment and test profiles
- Understand Field Technician responsibilities and perform oversight
- Understand the review and approval process of Punch list items
- Understand Certificate Completion process and handling exceptions

The user guide will cover the following topics and will enable the end user to import all project information, perform specific project database configurations, and create and administer work packages to the project workforce.

The training material INCLUDES:

- How to review and close out CCMS planned tasks
- How to edit, approve or reject, and close punch list items
- How to complete a certificate with or without exceptions
- How to generate completions reports
-

The training material **DOES NOT INCLUDE:**

- How to setup a project
- How to import data
- How to configure systemization, locations and WBS
- How to configure Certificates or Punch list
- How to configure TOPs
- How to create task models
- How to format test forms
- How to create CCMS planned tasks
- How to create Certificates
- How to create Job Cards

For more advanced trainings, request **“Work Package Developer”** User Guide. The next level will focus on task models, test profiles, task assignment, developing job cards, scheduling and administering tasks/forms to specific companies or personnel. It also includes importing of punch lists (if mobile is not used).

SECTION 1

Abbreviations, Terms and Definitions

1.1 - Abbreviations

Abbreviation	Description
BOM	Bill of Materials
CCMS	Completions and Commissioning Management System
CBP	Current Best Practice
CE	Continuum Edge
CO	Change Order
DCS	Distributive Control System (e.g. soft points I/O)
FIC	Field Installation Checklist
HOP	Handover Package
ITR	Inspection and Test Record
JC	Job Card
LBS	Location Breakdown Structure
MOC	Management of Change
NC	Non-Compliance
NOE	Notice of Energization
OBS	Organization Breakdown Structure
OEM	Original Equipment Manufacturer
PBS	Process Breakdown Structure (PBS) - Systemization
PCA	Process Criticality Analysis (e.g. performed on equipment)
PCI	Project Cost Item (e.g. budgetary items)
PCT	Project Control Task (e.g. P6 Activity)
PDF	Portable Document Format - Acrobat
PIN	Personal Identification Number (e.g. used for smart forms)
PL	Punchlist
PO	Purchase Order
PR	Preservation Tasks
SF	Smart Forms (e.g. offline HTML complex test sheets)
T	Planned Tasks (e.g. FICs, ITRs, Loop Tests, Pack Tests)
TF	Test Form
TM	Task Model
RFI	Request for Information
RU	Resource Utilization
WBS	Work Breakdown Structure
WP	Work Package

1.2 – Terms and Definitions

Term	Definition
Carry-Over-Work (COW)	Carry-Over-Work (COW) item is work that has not been completed at the fabricator/manufacturer and is the responsibility of that party to complete. Carry-Over-Work items will be recorded and tracked in the CCMS Database, as part of the Punchlist Manager module.
Commissioning	The phase of the project that transfers a facility from a construction site to an operational facility.
Completions and Commissioning Management System (CCMS)	The Smart Completions (SC) database system that tracks Mechanical Completion, Pre-Commissioning and Commissioning activities and data, including Punchlisting.
Field Installation Checklist (FIC)	Also known as Mechanical Completion Check Records (MCCRs). FICs are detailed documents that allow essential data to be recorded in a standardized format, providing documentary evidence of mechanical completion activities.
Inspection Test Record (ITR)	ITR is a detailed document that allows essential data to be recorded in a standardized format, providing documentary evidence of pre-commissioning activities.
Job Card	A collection of tasks and / or forms that are combined into a Job Card where they have common attributes, such as system / subsystem boundaries, project phase / stage and associated workgroup requirements.
Job Cards Manager	Designed to manage the assignment and administration of a collection of Job Cards.
Sub-System	The facility systems, as defined below, are further divided into sub-systems, where appropriate, in order to facilitate the Mechanical Completion, Function Testing, Commissioning and Handover of the entire Facility.
System	Process System – a test area or section defined by specific process application, pressure and/or temperature, or by specific hazards.
	Non-Process System – an infrastructure, such as buildings, structures, concreting and electrical and communications equipment.
Task / Planned Task	Individual FICs or ITRs that have been created for each asset that is required to be completed during different phases i.e. Fabrication, Construction, Pre-Commissioning and Commissioning.
Mechanical Completion (MC)	The state of the system when all civil, structural, concrete, piping, electrical, instrumentation and mechanical items have been installed as per the design documents and codes
Project	CAPEX or OPEX Project that is supported with the CCMS
Punchlist 'A'	Punchlist 'A' item prevents the sub-system or system from being Pre-commissioned, Commissioned or energised due to constraints on operability or safety of either PERSONNEL, EQUIPMENT or ENVIRONMENT.
Punchlist 'B'	Punchlist 'B' item can, by agreement, be rolled over to the next phase. 'B' items shall not prevent the safe operation of the equipment &/or system but represents incomplete work.
Punchlist 'C'	Punchlist 'C' item can be repaired and/or completed after handover, but must be done before issuance of the Close-out Certificate (C6).
Pre-commissioning	The phase of the project that involves a set of checks to prove the system functionality and prepares the system for commissioning.

Term	Definition
Work Package	A work package comprised of one or more tasks. Each task can identify specific person(s), tools, materials, safety requirements and supportive documentation. A work package is summarized in a simple go or no-go Job Card.
Work Package Manager	A Work Package manager is designed to manage the development, scheduling and execution of Work or Jobs.

SECTION 2

Project Execution

This section will provide a field supervisor the instructions on how to search for completed tasks by systemization, discipline, person etc., as well as close out or reject completed tasks. It will also instruct on how to accept/reject, and close punch list items and generate completions reports.

It is broken into tasks, punch lists and reporting.

2.1 - TASK CLOSURE OR REJECTION

There are two (2) different methods to find completed tasks that require closing:

- Method 1: Closing Tasks from Planned Tasks Module (search & close)
- Method 2: Use the Notification Dashboard

2.1.1 - Closing Tasks from Planned Tasks Module (cloud)

The most common approach to finding completed tasks (for assets, loops, packs, systems/subsystems etc.) that require closing is by the CCMS planned tasks module. It is accessed from the SC switchboard, COMPLETIONS tab, then PLANNED TASKS button. It can also be accessed from the menu, under completions > Execution.

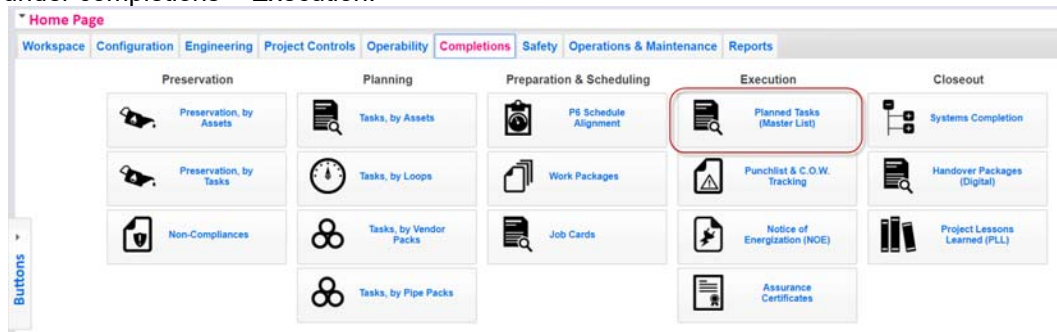


Figure: CCMS Planned Tasks (Master List)

Step 1: Filter Tasks

Expand GENERAL section in the search panel

Select COMPLETED = YES

Select CLOSED = NO

Apply additional filtering, such as:

- Responsible Company
- Discipline
- System(s)/Subsystem(s)

Note: ADVANCED search has systemization filtering (e.g. location/process section)

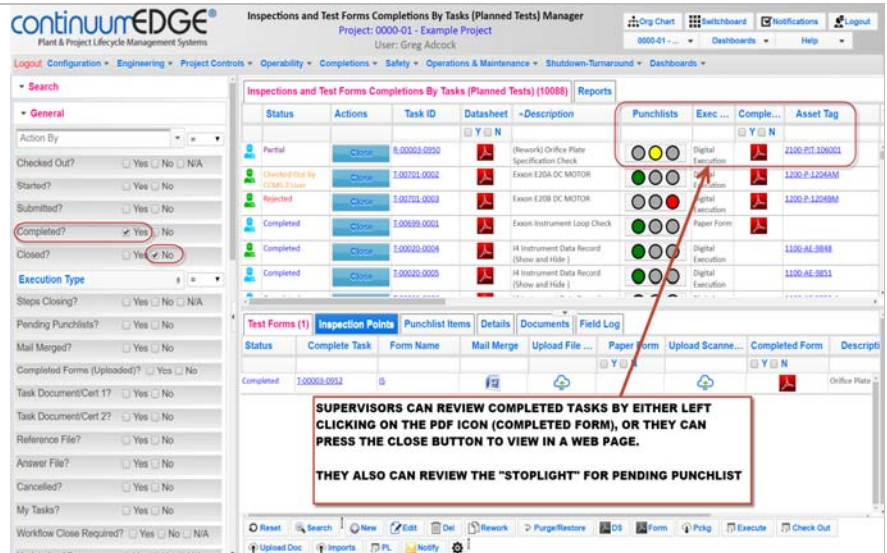


Figure: Task Manager – Filtering for Completed, Not Closed

Tool Tip:

Users can access Task associated punch lists by clicking on stop light. **GREEN** = no pending PLs, **YELLOW** = non-Critical PLs, **RED** = Critical PLs

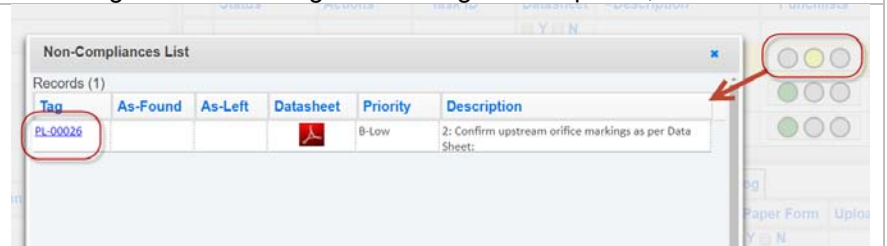


Figure: Planned Tasks – Stoplight (access PLs)

Step 2: Select CLOSE

Select CLOSE button to load the completed form (it will show a completed QR loaded form, or a digital executed form).

Tool Tip: Use the column headers to quickly find the desired tasks (e.g. asset tag, loop, system).

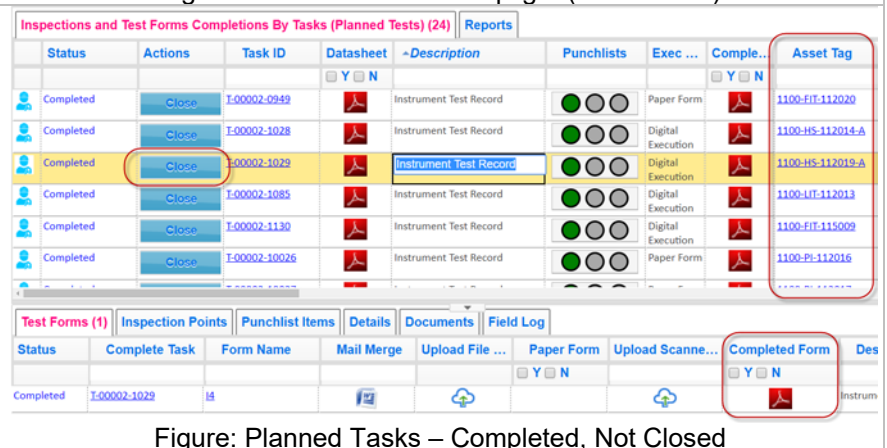


Figure: Planned Tasks – Completed, Not Closed

Step 3: Close/Reject Task

Review DIGITAL FORM

Press CLOSE button

Tool Tip: What shows up in the HTML Window is dependent on how the task was executed (via QR coded paper form, or digital on mobile). This task was performed digitally.

Figure: Planned Tasks – Edit Form (Close Task)

Closed Task

Once a task is closed the button in the list view will be removed and status will be updated to Closed.

Figure: Planned Tasks - Closed

Tool Tip:

If a task is closed, it can be moved back to prior states (left of REVOKE button) or it can be RESET (bottom button) which would take it back to the Origination state (pre-start).

Figure: Planned Tasks – Reset

2.1.2 - Closing a Task through the Notification Dashboard (cloud)

The notification dashboard is a great interface to see all “actionable items” that the user has to perform based on the roles and rights assigned, and if applied the “rights boundaries” applied to a user (e.g. user is only bound to 2 systems rather than all systems).

To access the notification dashboard press the NOTIFICATION button top right of the UI.



Step 1: Select Action Items

Action items will list all associated SC content based on user roles and rights.

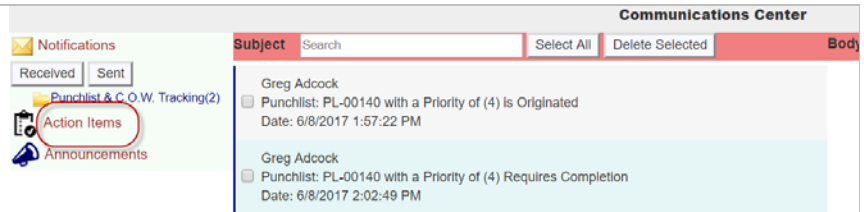


Figure: Notification/Communication Center

Step 2: Query for Task

Select REQUIRES CLOSING text under the CCMS Planned Tasks section.

This will list all planned tasks requiring closing. Utilize top search boxes to further refine tasks to close.

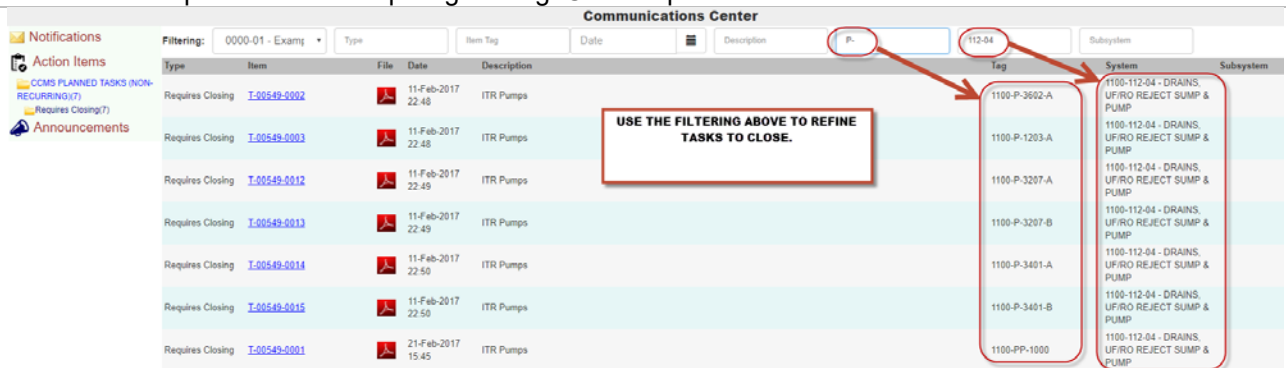


Figure: Notification/Communication Center

Step 3: Select Task, Review and Close

Select the task hyperlink (link in BLUE) to load the task Edit Form. This will show the completed QR scanned form, or the digital task. Review task in HTML window and CLOSE. Same images in 6.1.1.

If there are issues that stop the closure process, there are two (2) options:

1. Reject completion (same task must be re-performed), which is most common.
2. Close task with comments and create a “Rework” task.

Note: Rework Task is another instance of a particular task. Take for example, a piece of equipment that was installed and tested. Then a vendor changes something on the equipment requiring retesting. Instead of creating a “retesting” task model, a user would just use the rework button to create a new instance of the “test” task. A rework task will get an “R” prefix, vs. the standard “T” so that it is explicit which tasks has been done more than once.

2.2 - PUNCH LIST APPROVAL AND CLOSURE

A Supervisor is typically the person who would review new punch list items and determine if they have enough information to explicitly define what the issue is. In addition, they would also accept or reject the PL item as a valid PL item. PLs can be accepted in either the Punch List module OR the Notification center. The PL module provides greater functionality where supervisors can report on a collection of PLs, or they can also “BATCH” accept or reject multiple items. It is also where they can “batch checkout” PL items to mobile for walk-downs.

Note: PL items can be Accepted or Closed on Mobile and is dependent on role profile. The process is identical without automatic email generation.

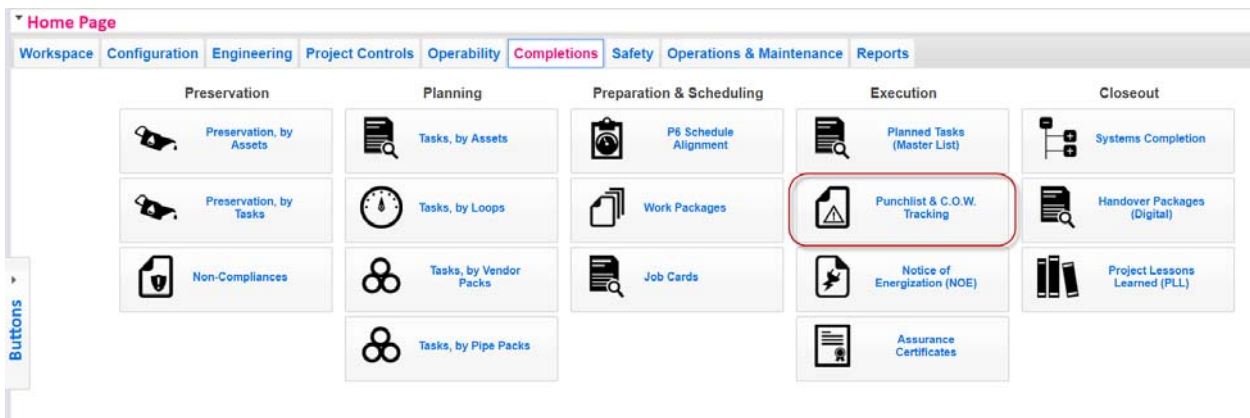
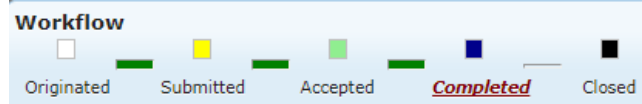


Figure: CCMS Punchlist (Master List)

2.2.1 - Accept a Punch List items via Punch list Module (cloud)

The general OOB workflow (based on proven use) is 5-state workflow.



Step 1: Search PL item

Use the search panel in the PL module to find all “originated” or “submitted” PL items (in current state dropdown).

Tool Tip:

Use **SAVED SEARCH** to expedite future reviews.

Figure: Searching in the Punch List Module

Step 2: Accept Punch list

Select the PDF file to review the content and images, OR select PL ID hyperlink.

Answer ALL RED required fields to move to Accept State.

Press **ACCEPT** button.

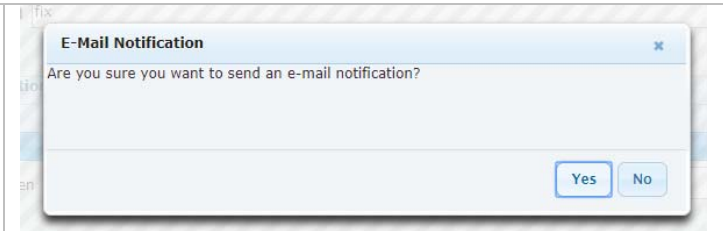
Tool Tip:

Required fields are configured in vUserApplications by the System Admin. It is a database wide configuration.

Figure: Accept Punchlist

Optional: Send Email Notification

CE can be configured to prompt (or auto generate) an email notification. If YES, then it will display a set of users based on roles and rights boundaries.



2.2.2 - Close a Punch List items via Punch list Module (cloud)

Closing a Punch list item can be done individually or through a batch process. Only advanced users with a “batch role” will be able to batch close items.

Step 1: Search PL item

Use the search panel in the PL module to find all “completed” (in current state dropdown).

Tool Tip:

Use SAVED SEARCH to expedite future reviews.

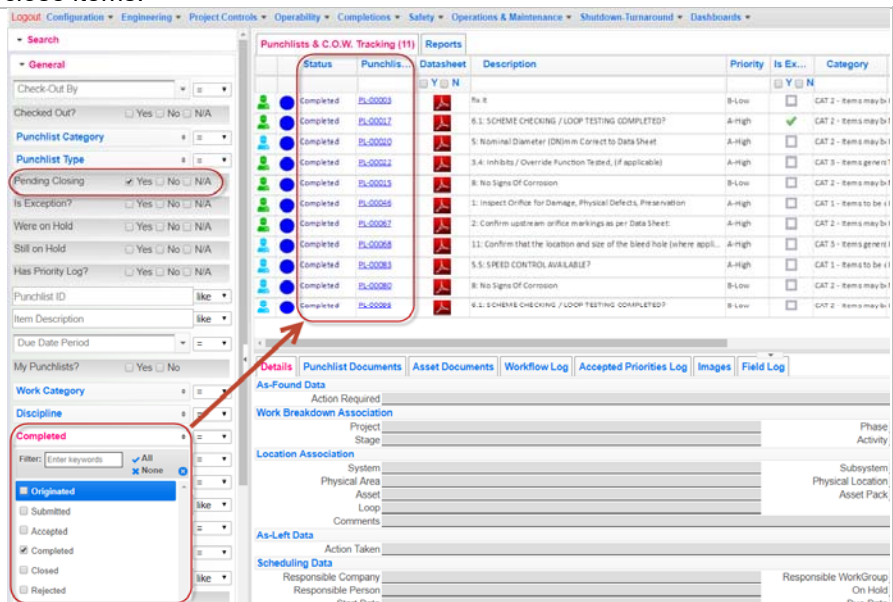


Figure: Searching in the Punch List Module

Step 2: Close Punch list

Select the PDF file to review the content and images, OR select PL ID hyperlink.

Answer ALL RED required fields to move to Close State.

Press CLOSE button.

Tool Tip:

Required fields are configured in vUserApplications by the System Admin. It is a database wide configuration.

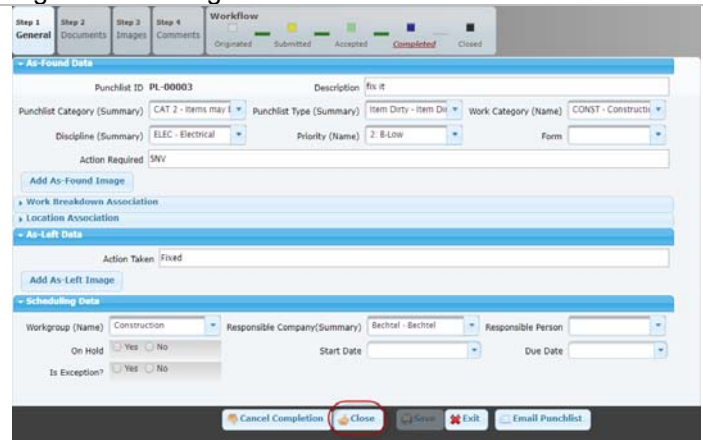
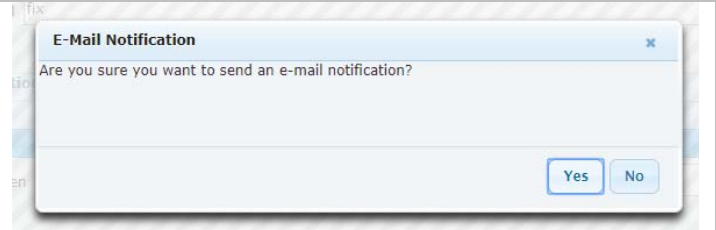


Figure: Close Punchlist

Optional: Send Email Notification

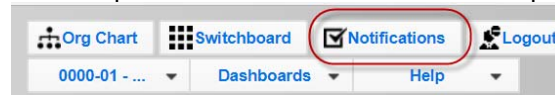
CE can be configured to prompt (or auto generate) an email notification. If YES, then it will display a set of users based on roles and rights boundaries.



2.2.3 - Approving or Closing a Punch List through Notification Dashboard (cloud)

The notification dashboard is a great interface to see all “actionable items” that the user has to perform based on the roles and rights assigned, and if applied the “rights boundaries” applied to a user (e.g. user is only bound to 2 systems rather than all systems).

To access the notification dashboard press the NOTIFICATION button top right of the UI.

**Step 1: Select Action Items**

Action items will list all associated SC content based on user roles and rights.

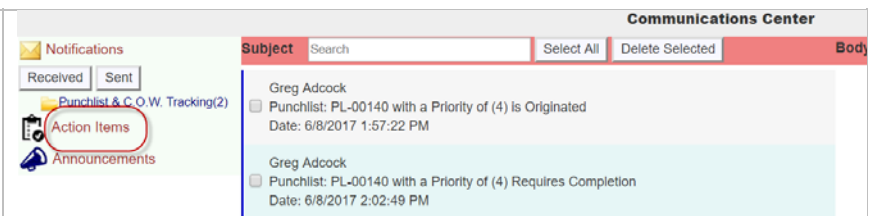


Figure: Notification/Communication Center

Step 2: Query for Punch List

Select **REQUIRES ACCEPTANCE** hyperlink to view PLs. Use the top filter boxes to refine list.

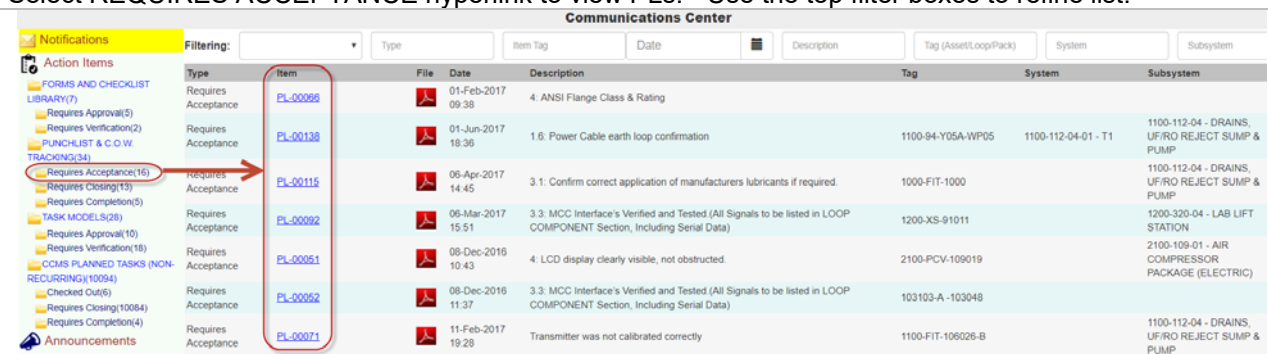


Figure: Notification/Communication Center

Step 3: Select PL to Accept or Close

Select the PL hyperlink (link in BLUE) to load the PL Edit Form. User can also select the PDF icon to view the PL item with images for review. If the PL is acceptable, load the edit form and press ACCEPT. This will then allow the targeted contractor to perform (complete) the PL item.

The close process is the same as Accept. The only difference is that the close state may require specific “required” fields to be filled out.

2.2.4 - Printing a QR coded Punch List Form for Field Completion

When a project is not utilizing the SC mobile application, SC does offer another option to help pseudo automate the completion of PL items and loading back into the SC CCMS. A supervisor or system clerk would print out the QR PL forms for the contractors. A contractor would then write in what they did to resolve the PL item, sign and hand back to the system clerk, or work package developer for scanning and automatic processing back into the SC database. SC will read the QR coded PL form, and will automatically move the PL to the “Completed” state. Closure must be performed in the cloud.

Step 1: Search PL items & Merge Forms

Use the search panel in the PL module to find all “Accepted” (in current state dropdown).

Tool Tip:

Batch select PL records by holding CNTL button down and left clicking the distinct PL records, OR hold SHIFT button down and select by left clicking top row, then left clicking bottom row.

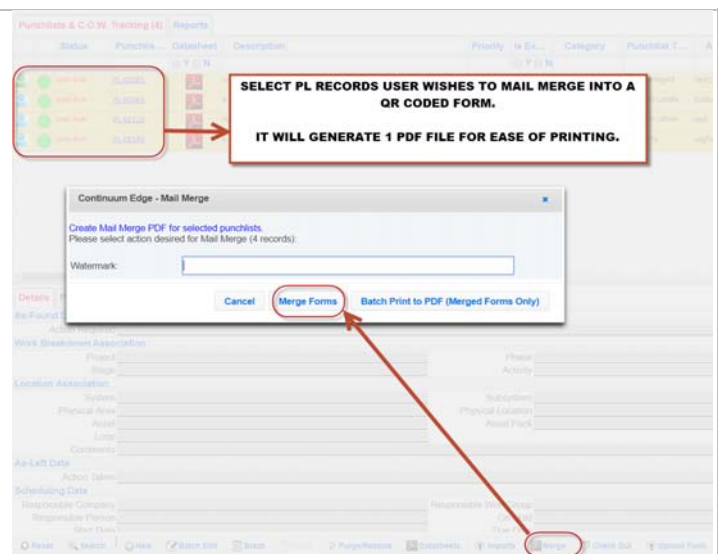


Figure: Batch Merge PL QR Coded Forms

Step 2: Batch Print PL PDF Sheets

CE will merge the selected PLs into 1 PDF file where each PL item will have its own page and distinct QR code form.

VIEW and PRINT to PDF or Printer.

Example: Several PLs in 1 PDF file

Figure: PDF Generated PL Forms - Punchlist

Note: If a user presses the MAIL MERGE button and nothing happens, it is because of 2 possible reasons:

1. The project does not have a template PL form created (contact system admin)
2. The PL item is not mapped to the PL mail merge template (see image below)

Figure: A PL record MUST reference PL FORM to merge into PDF file (w/ QR code)

2.2.5 - Checkout Punch Items for Field Completion (via Mobile)

Note: See FIELD TECHNICIAN USER GUIDE for the checkout and in of PL items.

SECTION 3

Asset/Pack/Loop Status Reporting

The supervisor will get the majority of status reporting from the CCMS Planned Tasks module. This module will track EVERY task in the Completions database for:

- Assets/Tags (all disciplines, including I/O)
- Loops
- Pipe Packs
- Cable Packs
- Vendor Packs

3.1 - TASK COMPLETION REPORTS

3.1.1 - Task Completion by Systemization

Report Location:

Planned Tasks (Master List) Module

Exclusions:

None. Includes asset, loop and pack

tasks.

Index by Systemization

Public

Detail Level
 Highlight

Task Completion Status By Systemization
☒ Use Filter
☐ Cover Page

CE Project Solution
Task Completion Summary
 by Systemization

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Systemization		Assigned Equipment	Tasks Assigned	Tasks Complete	Tasks Outstanding	% Complete	Tasks Closed	% Closed	Outstanding PL Items
Plant: 1000 - TRAIN 1		53	62	29	33	46.8%	5	8.1%	7
Process Area: 1100-112 - UTILITIES		53	62	29	33	46.8%	5	8.1%	7
System: 1100-112-04 - DRAINS, UFWO REJECT SUMP & PUMP		53	62	29	33	46.8%	5	8.1%	7
Asset / Loop / Pack Details									
Job ID	Task ID	Test Form	Responsible	Completion Details				Is Closed	
Asset: 1000-FIT-1000 - PUMP DISCHARGE FLOW									
JC-000042	T-00001-1887 - Pressure Relieving Device Inspection	INST Atlas Copco	Baldor	1	0	1	0.0%	0	0.0%
Asset: 1100-CT-112816 - PK-1100-ET-01 CURRENT TRANSFORMER									
	T-00125-0008 - Routine Preservation - Transformer	ELEC Siemens	IBS	3	1	2	33.3%	1	33.3%
	T-01000-0001 - MCC Feeder-Contactor Bucket	ED1B	Exxon				17-Mar-2017	Glenn Boyko	
	T-01154-0010 - EA024D ELECTRICAL	ORG-ARW-AOP-TEM-00053	IBS						

3.1.2 - Task Completion Status by Systemization, Disc, and Asset Type

Report Location:

Planned Tasks (Master List)

Exclusion:

Only Asset Tasks. Excludes loop and pack tasks.

Index by Systemization	Public	Detail Level Highlight		 	Task Completion Status (Systemization, Discipline, & Asset Type) <input checked="" type="checkbox"/> Use Filter <input type="checkbox"/> Cover Page
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Demonstration site
Task Completion Summary
 By Systemization, Discipline, & Asset Type

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Systemization	Assigned Equipment	Tasks Assigned	Tasks Complete	Tasks Outstanding	% Complete	Tasks Closed	% Closed	Outstanding PL Items
Plant: 2500 - Central Facility	47	48	17	31	35.4%	0	0.0%	16
Process: 2501 - Line 1 - Gas Compression	47	48	17	31	35.4%	0	0.0%	16
System: 2501-01 - Gas Compression	47	48	17	31	35.4%	0	0.0%	16
Subsystem: 2501-01-01 - Air Compressors & Air Receivers	47	48	17	31	35.4%	0	0.0%	16
Cable/Conduit		6	0	6	0.0%	0	0.0%	1
FO-C - FIBRE OPTIC, SINGLE MODE		6	0	6	0.0%	0	0.0%	1
Electrical		8	4	4	50.0%	0	0.0%	1
CP-E - Control Panel		1	1	0	100.0%	0	0.0%	1
JB-E - Electrical Junction Box		2	1	1	50.0%	0	0.0%	1
TR-E - Transformer		2	1	1	50.0%	0	0.0%	1
VSD-E - VSD		3	1	2	33.3%	0	0.0%	1
Instrument		34	13	21	38.2%	0	0.0%	16
AIT-I - Moisture Transmitter		3	3	0	100.0%	0	0.0%	5
JB-I - Instrument Junction Box		3	0	3	0.0%	0	0.0%	1
PDIT-I - Differential Pressure Indicating Transmitter		19	6	13	31.6%	0	0.0%	7
PIT-I - Pressure Indicating Transmitter		5	3	2	60.0%	0	0.0%	5
TIT-I - Temperature Indicating Transmitter		4	1	3	25.0%	0	0.0%	2
Totals:	47	48	17	31	35.4%	0	0.0%	16

3.1.3 - MH Task Completion by Systemization, Work Week and Discipline

Note:

Task Models must have Resources and MHs assigned

Report Location:

Planned Tasks (Master List)

Exclusion:

Only Asset Tasks. Excludes loop and pack tasks

Index by Systemization Public **Detail Level** Highlight

MH Task Completion Status By Systemization, WorkDates, Task D and Title

☒ Use Filter ☐ Cover Page

Man Hours Task Completion Status
By Systemization, WorkDates, Task Discipline, and Title

Systemization	Assigned Equipment	Tasks Assigned	Tasks Complete	Tasks Outstanding	% Complete	Planned MHrs	Remaining MHrs	% Remaining
Plant: 2500 - Central Facility	47	48	17	31	35.4%	581.0	-51.0	-8.8%
Process: 2501 - Line 1 - Gas Compression	47	48	17	31	35.4%	581.0	-51.0	-8.8%
System: 2501-01 - Gas Compression	47	48	17	31	35.4%	581.0	-51.0	-8.8%
Subsystem: 2501-01-01 - Air Compressors & Air Receivers	47	48	17	31	35.4%	581.0	-51.0	-8.8%
Work Week: 22-Nov-2015	1	1	0	1	0.0%	525.0	-85.0	-16.2%
Cable/Conduit		1	0	1	0.0%	525.0	-85.0	-16.2%
Title: CCMS Coordinator		1	0	1	0.0%	25.0	15.0	60.0%
Title: Construction - E&I Technician		1	0	1	0.0%	500.0	-100.0	-20.0%
Work Week: 15-Nov-2015	5	5	3	2	60.0%	10.0	4.0	40.0%
Electrical		5	3	2	60.0%	10.0	4.0	40.0%
Title: Construction - Elect/Inst Supervisor		2	1	1	50.0%	4.0	2.0	50.0%
Title: Construction - Electrical Technician		3	2	1	66.7%	6.0	2.0	33.3%
Unscheduled Work Week	41	42	14	28	33.3%	46.0	30.0	65.2%
Cable/Conduit		5	0	5	0.0%			
Unassigned Title		5	0	5	0.0%			
Electrical		3	1	2	33.3%	9.0	6.0	66.7%
Title: Construction - Electrical Technician		3	1	2	33.3%	9.0	6.0	66.7%
Instrument		34	13	21	38.2%	37.0	24.0	64.9%
Title: Commissioning - Instrument Technician		31	13	18	41.9%	15.5	9.0	58.1%
Title: Commissioning - Instrumentation		3	0	3	0.0%	6.0	6.0	100.0%
Title: Engineering - Controls Systems Engineer		31	13	18	41.9%	15.5	9.0	58.1%
Totals:	47	48	17	31	35.4%	581.0	-51.0	-8.8%

3.1.4 - Commissioning Readiness Report

Note: This report will require configuration. Contact your SC representative

Report Location:

Planned Tasks (Master List)

Exclusion: None. Includes all Tasks, Certificates and NOEs however may not meet your configuration.

Summary (5 items)

Summary Public **Detail Level** Highlight

Commissioning Readiness (Task Centric)

☒ Use Filter ☐ Cover Page

Commissioning Readiness

Overall complete: 34.3%	No Load Commissioning Readiness						Load Commissioning Readiness			Operations Readiness			
	Construction Tasks Complete / Plan	WOR Status	Cat 1 Punchlist Complete / Plan	CVC Status	NOE Status	CSCC Status	No Load Task Complete / Plan	Cat 2 Punchlist Complete / Plan	RFLC Status	Cat 3 Punchlist Complete / Plan	Cat 4 Punchlist Complete / Plan	Load Tasks	ATO Status
Plant: 002 - ER - Onbody 28	0/18 0%	0/22 0%		0/22 0%	0/22 0%	0/22 0%	26/250 49%		0/22 0%			0/18 0%	0/22 0%
Process Area: 002 - OES - DHP	0/18 0%	0/22 0%		0/22 0%	0/22 0%	0/22 0%	26/250 49%		0/22 0%			0/18 0%	0/22 0%
System: 002-01 - PRIMARY CRUSHER SUB 100	0/18 0%	0/22 0%		0/22 0%	0/22 0%	0/22 0%	26/250 49%		0/22 0%			0/18 0%	0/22 0%
Subsystem: 002-01-01 - Switchroom, MCC & switchroom services SUB 100	0/27 0%	Not Created		Not Created	Not Created	Not Created	207/265 54%		Not Created				Not Created

3.2 - PUNCHLIST COMPLETION REPORTS

3.2.1 - Punchlist Summary Scorecard by Systemization and Category

Report Location:

Punchlist

Exclusion:

Closed PLs

Index by Systemiz... Public

Detail Level

Highlight

[Punchlist Summary \(by Systemization and Category: Scorecard\)](#)

☒ Use Filter

☐ Cover Page



CE Project Solution
Punchlist Summary
 by Systemization and Category

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Overall closed is:	11.0%	Total Reported	Rejected	Not Started	In Progress	Completed	Closed	% Closed	On Hold	Overdue
Plant: 1000 - TRAIN 1		56	1	35	1	11	8	14.5%	0	35
Process Area: 1100-103 - DETECTION SYSTEMS		14	0	5	1	4	4	28.6%	0	6
System: 1100-103-02 - FIRE WATER DIESEL PUMPS		2	0	1	1	0	0	0.0%	0	2
(no category assigned)		1	0	0	1	0	0	0.0%	0	1
CAT 2		1	0	1	0	0	0	0.0%	0	1

3.2.2 - Punchlist Status by Responsible Company and Open

Report Location:

Punchlist

Exclusion:

Closed PLs

Index/Status Public

[Master Punchlist Index \(by Responsible Company and Opened Items\)](#)

☒ Use Filter

☐ Cover Page



CE Project Solution
Punchlist Summary By Company
 by Responsible Company and Opened Items

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Responsible: ABB - Electrical Equipment Manufacturer

Past Due: 2

Completed: 1

Item	Asset Tag - Description	Originator	Status	Completed By	Completed Date
Discipline	Deficiency Description	Priority	Due Date	Closed By	Closed Date
PL-00072	1100-XY-112014 - UF FILTER/RO REJECT PUMP P-3602A	Boyko, Glenn	Completed	Boyko, Glenn	2/16/2017
INST	5.5: SPEED CONTROL AVAILABLE?	A-High	Items to be completed before handover of the Package to the next phase		2/13/2017
PL-00070	1100-AE-112056 - POTABLE WATER TK-3604 TO DISTRIBUTION HEADER	Boyko, Glenn	Past Due		
INST	12: Confirm plate thickness is within 0.01 x DN (in mm) (FE only)	B-Low	Items generated by the client/operations		2/22/2017

3.3 - CERTIFICATE AND NOE COMPLETION REPORTS

3.3.1 - Certificate Completion Details by Systemization and Type

Note: this report will require that an admin configure certificate types with sequence (1-4) and “show on report”.

Report Location:

Assurance Certificates

Exclusion:

None

Index by Systemiz... Public

Detail Level

Highlight



Certificate Completion Details by Type and Systemization

☒ Use Filter

☐ Cover Page



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Certificate Completion by Type, Systemization and Completion Details
with Task and Punchlist Discipline Completion Details

Systemization																
Plant: 1000 - TRAIN 1																
Process Area: 1100-103 - DETECTION SYSTEMS																
System: 1100-103-07 - FIRE / GAS DETECTION - OSBL EAST, REFRIG. SYG.; UTIL. AREA; CCR																
Unassigned Subsystem																
Task Discipline	RFLC															
	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed
INST	378.00	377.00	8.00	2.1												
Category / Priority	RFLC								Punchlist							
	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed
A-High	1.00	1.00	0.00	0.0												
B-Low	2.00	1.00	1.00	50.0												
COMM	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed
A-High	1.00	1.00	0.00	0.0												
CONST	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed	Total	Complete	Closed	%Closed
A-High	1.00	1.00	0.00	0.0												
B-Low	2.00	2.00	1.00	50.0												

3.3.2 - Certificate Completions Summary by System

Note: This report will dynamically list the different certificate types from left to right (as columns) but admin must sequence the certificate types and show on report = yes.

Report Location:

Assurance Certificates

Exclusion:

None

Summary	Public				Certificate Completions Summary by System <input checked="" type="checkbox"/> Use Filter <input type="checkbox"/> Cover Page
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Certificate Completions Summary Report by System

Systemization	RFLC			Total		
	20	5	25.0%	20	5	25.0%
1000 - TRAIN 1	20	5	25.0%	20	5	25.0%
1100-103 - DETECTION SYSTEMS	20	5	25.0%	20	5	25.0%
1100-103-01 - FIRE WATER DRUMS	1	1	100.0%	1	1	100.0%
1100-103-02 - FIRE WATER DIESEL P	1	0	0.0%	1	0	0.0%
1100-103-03 - FIRE WATER DISTRIBU	1	0	0.0%	1	0	0.0%
1100-103-04 - FIRE WATER DISTRIBU	1	0	0.0%	1	0	0.0%
1100-103-05 - FIRE WATER DISTRIBU	1	1	100.0%	1	1	100.0%

3.3.3 - NOE Status by Systemization

Note: This report references the full approval status of the NOEs, and reference to the prerequisite Certificate.

Report Location:

NOE

Exclusion:

Only system based does not list the equipment to be energized.

Index/Status	Public				NOE Status by Systemization <input checked="" type="checkbox"/> Use Filter <input type="checkbox"/> Cover Page
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NOE Status by Systemization

Plant: 1000 - TRAIN 1										
Process Area: 1100-109 - AIR COMPRESSION										
Systemization		NOE Tag	Certificate		NOE Current Work Flow Status					
			ID	Complete	Rejected / Revoked	Originated	Submitted	Partially Approved	Approved	Closed
Systems	Subsystems	1	1	1	0	1	0	0 0.0%	0 0.0%	0 0.0%
1100-109-01,1100-109-02,1100-109-03,1100-109-04,1100-109-05,1100-109-06,1100-109-07,1100-109-08,1100-109-09,1100-109-10		NOE-00006	CERT-000035	YES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.4 - NOE Forecast

Report Location:

NOE

Exclusion:

None

Index/Status	Public	Detail Level			NOE Forecast
		Highlight	<input checked="" type="checkbox"/> Use Filter		<input type="checkbox"/> Cover Page



CE Project Solution
NOE Forecast

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Past Due							
Certificate Type: RFLC							
NOE Tag	Description	Certificate	Assets	Systems	Subsystems	Approvals	Sched. Date
NOE-00005	Testing	CERT-000031 Open	3	1	0	1/4 25.0%	17-Feb-2017
Asset			Discipline	Switchgear	Electrical	MCC	Cubical
1100-CT-112816 - PK-1100-ET-01 CURRENT TRANSFORMER			ELEC				
1100-CT-112817 - PK-1100-ET-02 CURRENT TRANSFORMER			ELEC				
1100-CT-46900 - MCC CURRENT TRANSFORMER			ELEC				
Systems				Subsystems			
1100-112-04 - DRAINS, UF/RO REJECT SUMP & PUMP							

SECTION 4

Systems Completion Status Reporting

The supervisor would access the “Systems or Subsystems Completion” modules to review where specific system(s) or subsystem(s) completions status.

Note: This module is only for status review, it is not an “administrative” module. The following reports are available:

4.1 - SYSTEM BASED READINESS REPORTS

4.1.1 – Commissioning Readiness Report (System Centric Completion)

This report uses the systemization to start queries and then it finds tasks and punch list linked to its systemization.

Systems Completion Status Reporting



Commissioning Readiness

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Overall complete: 34.3%	No Load Commissioning Readiness						Load Commissioning Readiness			Operations Readiness			
	Construction Tasks	WDR Status	Cat 1 Punchlist	CVC Status	NOE Status	CSCC Status	No Load Task	Cat 2 Punchlist	RFLC Status	Cat 3 Punchlist	Cat 4 Punchlist	Load Tasks	ATO Status
	Complete / Plan		Complete / Plan				Complete / Plan	Complete / Plan		Complete / Plan	Complete / Plan		
Plant: 002 - ER - Orebody 25	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%
Process Area: 002 - OB25 - OHP	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%
System: 002-01 - PRIMARY CRUSHER SUB 100	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%
Subsystem: 002-01-01 - Switchroom, MCC & switchroom services SUB 100	0227 0%	Not Created		Not Created	Not Created	Not Created	207385 54%		Not Created				Not Created
Subsystem: 002-01-02 - TX100 Supply and MCC Incomer IC100	0116 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-03 - Marshalling Panel M100-MP001	08 0%	Not Created		Not Created	Not Created	Not Created	01 0%		Not Created				Not Created
Subsystem: 002-01-04 - DB1 - 415V L&SP Field DB	01 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-05 - DB2 - Crusher Control Room 415V L&SP DB (P50)	02 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-06 - DH - Dump Hopper & Dust Suppression	012 0%	Not Created		Not Created	Not Created	Not Created	03 0%		Not Created				Not Created
Subsystem: 002-01-07 - CON - Control Room	016 0%	Not Created		Not Created	Not Created	Not Created	04 0%		Not Created				Not Created
Subsystem: 002-01-08 - Conveyor CV4	012 0%	Not Created		Not Created	Not Created	Not Created	010 60%		Not Created			01 0%	Not Created
Subsystem: 002-01-09 - Screen SC1A and SC1B	03 0%	Not Created		Not Created	Not Created	Not Created	08 0%		Not Created			02 0%	Not Created
Subsystem: 002-01-10 - Primary Crusher CR1	010 0%	Not Created		Not Created	Not Created	Not Created	38 38%		Not Created			01 0%	Not Created
Subsystem: 002-01-11 - Rock Breaker RB1	05 0%	Not Created		Not Created	Not Created	Not Created	010 60%		Not Created			02 0%	Not Created
Subsystem: 002-01-12 - Grizzly GS1	03 0%	Not Created		Not Created	Not Created	Not Created	46 67%		Not Created			01 0%	Not Created
Subsystem: 002-01-13 - Apron Feeder AF1	019 0%	Not Created		Not Created	Not Created	Not Created	12022 55%		Not Created			03 0%	Not Created
Subsystem: 002-01-14 - Scraper Conveyor CV1A	011 0%	Not Created		Not Created	Not Created	Not Created	011 30%		Not Created			03 0%	Not Created
Subsystem: 002-01-15 - Conveyor CV12	018 0%	Not Created		Not Created	Not Created	Not Created	011 82%		Not Created			01 0%	Not Created
Subsystem: 002-01-16 - Conveyor CV11	017 0%	Not Created		Not Created	Not Created	Not Created	713 54%		Not Created			01 0%	Not Created
Subsystem: 002-01-17 - Screen SC2	03 0%	Not Created		Not Created	Not Created	Not Created	05 0%		Not Created			01 0%	Not Created
Subsystem: 002-01-18 - Conveyor CV8	015 0%	Not Created		Not Created	Not Created	Not Created	010 0%		Not Created			01 0%	Not Created
Subsystem: 002-01-19 - Stacker Traverse Drive ST12	010 0%	Not Created		Not Created	Not Created	Not Created	010 0%		Not Created			01 0%	Not Created
Subsystem: 002-01-20 - Magnet MG1	06 0%	Not Created		Not Created	Not Created	Not Created	47 57%		Not Created				Not Created
Subsystem: 002-01-21 - Sample Lab & Workshop SMLP	01 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-22 - Fibre Optic	01 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Unassigned Subsystem		Not Created		Not Created	Not Created	Not Created	06 0%		Not Created				Not Created
Totals:	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%

Figure: Commissioning Readiness Report

4.1.2 - Commissioning Readiness Report (Task Centric Completion)

This report starts with tasks and then finds any punch list or systemization linked to them. So you cannot see PL orphans as there are no "task linkage". **Note:** This report may time out for the larger projects due to the quantity of lookups/triangulation of tasks.



Commissioning Readiness

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Overall complete: 34.3%	No Load Commissioning Readiness						Load Commissioning Readiness			Operations Readiness			
	Construction Tasks	WDR Status	Cat 1 Punchlist	CVC Status	NOE Status	CSCC Status	No Load Task	Cat 2 Punchlist	RFLC Status	Cat 3 Punchlist	Cat 4 Punchlist	Load Tasks	ATO Status
	Complete / Plan		Complete / Plan				Complete / Plan	Complete / Plan		Complete / Plan	Complete / Plan		
Plant: 002 - ER - Orebody 25	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%
Process Area: 002 - OB25 - OHP	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%
System: 002-01 - PRIMARY CRUSHER SUB 100	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%
Subsystem: 002-01-01 - Switchroom, MCC & switchroom services SUB 100	0227 0%	Not Created		Not Created	Not Created	Not Created	207385 54%		Not Created				Not Created
Subsystem: 002-01-02 - TX100 Supply and MCC Incomer IC100	0116 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-03 - Marshalling Panel M100-MP001	08 0%	Not Created		Not Created	Not Created	Not Created	01 0%		Not Created				Not Created
Subsystem: 002-01-04 - DB1 - 415V L&SP Field DB	01 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-05 - DB2 - Crusher Control Room 415V L&SP DB (P50)	02 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-06 - DH - Dump Hopper & Dust Suppression	012 0%	Not Created		Not Created	Not Created	Not Created	03 0%		Not Created				Not Created
Subsystem: 002-01-07 - CON - Control Room	016 0%	Not Created		Not Created	Not Created	Not Created	04 0%		Not Created				Not Created
Subsystem: 002-01-08 - Conveyor CV4	012 0%	Not Created		Not Created	Not Created	Not Created	010 60%		Not Created			01 0%	Not Created
Subsystem: 002-01-09 - Screen SC1A and SC1B	03 0%	Not Created		Not Created	Not Created	Not Created	08 0%		Not Created			02 0%	Not Created
Subsystem: 002-01-10 - Primary Crusher CR1	010 0%	Not Created		Not Created	Not Created	Not Created	38 38%		Not Created			01 0%	Not Created
Subsystem: 002-01-11 - Rock Breaker RB1	05 0%	Not Created		Not Created	Not Created	Not Created	010 60%		Not Created			02 0%	Not Created
Subsystem: 002-01-12 - Grizzly GS1	03 0%	Not Created		Not Created	Not Created	Not Created	46 67%		Not Created			01 0%	Not Created
Subsystem: 002-01-13 - Apron Feeder AF1	019 0%	Not Created		Not Created	Not Created	Not Created	12022 55%		Not Created			03 0%	Not Created
Subsystem: 002-01-14 - Scraper Conveyor CV1A	011 0%	Not Created		Not Created	Not Created	Not Created	011 30%		Not Created			03 0%	Not Created
Subsystem: 002-01-15 - Conveyor CV12	018 0%	Not Created		Not Created	Not Created	Not Created	011 82%		Not Created			01 0%	Not Created
Subsystem: 002-01-16 - Conveyor CV11	017 0%	Not Created		Not Created	Not Created	Not Created	713 54%		Not Created			01 0%	Not Created
Subsystem: 002-01-17 - Screen SC2	03 0%	Not Created		Not Created	Not Created	Not Created	05 0%		Not Created			01 0%	Not Created
Subsystem: 002-01-18 - Conveyor CV8	015 0%	Not Created		Not Created	Not Created	Not Created	010 0%		Not Created			01 0%	Not Created
Subsystem: 002-01-19 - Stacker Traverse Drive ST12	010 0%	Not Created		Not Created	Not Created	Not Created	010 0%		Not Created			01 0%	Not Created
Subsystem: 002-01-20 - Magnet MG1	06 0%	Not Created		Not Created	Not Created	Not Created	47 57%		Not Created				Not Created
Subsystem: 002-01-21 - Sample Lab & Workshop SMLP	01 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Subsystem: 002-01-22 - Fibre Optic	01 0%	Not Created		Not Created	Not Created	Not Created			Not Created				Not Created
Unassigned Subsystem		Not Created		Not Created	Not Created	Not Created	06 0%		Not Created				Not Created
Totals:	0218 0%	022 0%		022 0%	022 0%	022 0%	262930 49%		022 0%			016 0%	022 0%

Figure: Commissioning Readiness Report

4.1.3 - Systemization Readiness Report

This reports is focused on how many tasks, by discipline, and systemization are required to be completed in order for commissioning to commence.

Note: This report is dependent on “Task Types” being configured to the Construction, No Load and Load Testing configurations. Contact your IBS representative for support.



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Systemization Readiness Report

Systemization	Task Completions																Punchlist						
	Not Started Construction							Not Started Not Load				Not Started Load				Not Started				Complete			
	Civil	Elect / Cable	Inst	Mech	Piping	Struct	Other	Construction Complete/Total	Elect / Cable	Inst	Mech	Other	Not Load Complete/Total	Elect / Cable	Inst	Mech	Other	Load Complete/Total	Cat 1		Cat 2	Cat 3	Cat 4
Plant: 002 - ER - Orebody 25		215					3	0/215 0.0%	27				231	262/320 49.4%	16				0/16 0.0%				
Process Area: 002 - ER - Orebody 25		215					3	0/215 0.0%	27				231	262/320 49.4%	16				0/16 0.0%				
System: 002-01 - PRIMARY CRUSHER SUB 100		215					3	0/215 0.0%	27				231	262/320 49.4%	16				0/16 0.0%				
Subsystem																							
002-01-01 - Switchroom, MCC & switchroom services SUB 100	24						3	0/27 0.0%	5				173	207/265 53.9%									
002-01-02 - TX100 Supply and MCC Incoming IC100	16							0/16 0.0%															
002-01-03 - Marshalling Panel M100-MP001	8							0/8 0.0%				1	0/1 0.0%										
002-01-04 - DB1- 415V L&SP Field DB	1							0/1 0.0%															
002-01-05 - DB2 - Crusher Control Room 415V L&SP DB (P50)	2							0/2 0.0%															
002-01-06 - DB1 - Dump Hopper & Dust Suppression	12							0/12 0.0%				3	0/3 0.0%										
002-01-07 - CON -Control Room	16							0/16 0.0%				4	0/4 0.0%										
002-01-08 - Conveyor CV4	12							0/12 0.0%	2			2	5/10 50.0%						0/1 0.0%				
002-01-09 - Screen SC1A and SC1B	6							0/6 0.0%	4			4	0/8 0.0%	1					0/2 0.0%				
002-01-10 - Primary Crusher CR1	10							0/10 0.0%	2			3	3/8 37.5%	1					0/1 0.0%				
002-01-11 - Rock Breaker RB1	5							0/5 0.0%	4				6/10 60.0%	2					0/2 0.0%				
002-01-12 - Grizzly GS1	3							0/3 0.0%	2				4/6 66.7%	1					0/1 0.0%				
002-01-13 - Apron Feeder AF1	19							0/19 0.0%	6			4	12/22 54.5%	3					0/3 0.0%				
002-01-14 - Scraper Conveyor CV1A	11							0/11 0.0%	2			5	4/11 36.4%	1					0/1 0.0%				
002-01-15 - Conveyor CV12	18							0/18 0.0%	2				0/11 0.0%	1					0/1 0.0%				
002-01-16 - Conveyor CV11	17							0/17 0.0%	2				4	7/13 53.8%	1				0/1 0.0%				
002-01-17 - Screen SC2	3							0/3 0.0%	2			3	0/5 0.0%	1					0/1 0.0%				
002-01-18 - Conveyor CV8	16							0/16 0.0%	2				0/10 0.0%	1					0/1 0.0%				
002-01-19 - Stacker Traverse Drive ST12	10							0/10 0.0%	2				0/10 0.0%	1					0/1 0.0%				
002-01-20 - Magnet MG1	6							0/6 0.0%				3	4/7 57.1%										
002-01-21 - Sample Lab & Workshop SMP1	1							0/1 0.0%															
002-01-22 - Fibre Optic	1							0/1 0.0%															
Unassigned Subsystem												5	0/5 0.0%										
Totals:	215						3	0/215 0.0%	37				231	262/320 49.4%	16				0/16 0.0%				

Figure Systemization Readiness Report

4.2 - SYSTEMS COMPLETION

Access the systems completion module via the Completions switchboard.

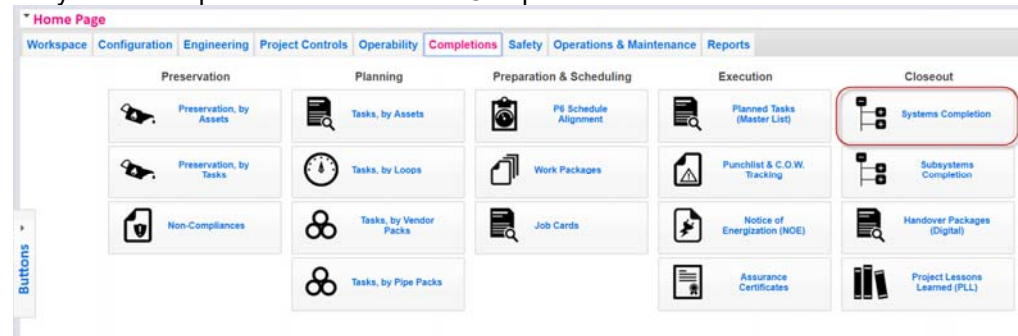


Figure: CCMS Switchboard – Systems Completion Module

A supervisor can review overall SYSTEM completion by either using the BROWSE BY SYSTEMIZATION or SEARCH panel to find a particular system(s). Click on the system row to review specific tasks, certificates, NOEs, punch list items. The OVERALL % COMPLETION of the system is in the primary list view (in Green Circle). Systems completion is the % complete for the system across all phases of the project.

Figure: Systems Completion module

4.3 - SUBSYSTEMS COMPLETION

Access the systems completion module via the Completions switchboard.

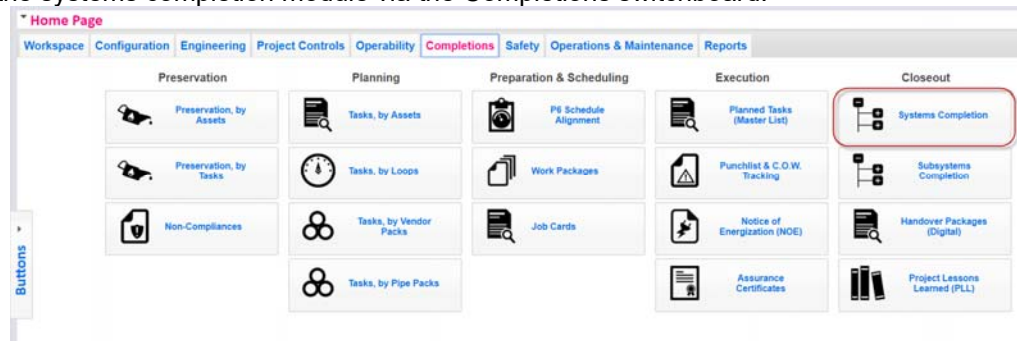


Figure: CCMS Switchboard – Subsystems Completion Module

The subsystems completion modules only list SUBSYSTEMS. Click on SUBSYSTEM to review required tasks, punch lists status etc.

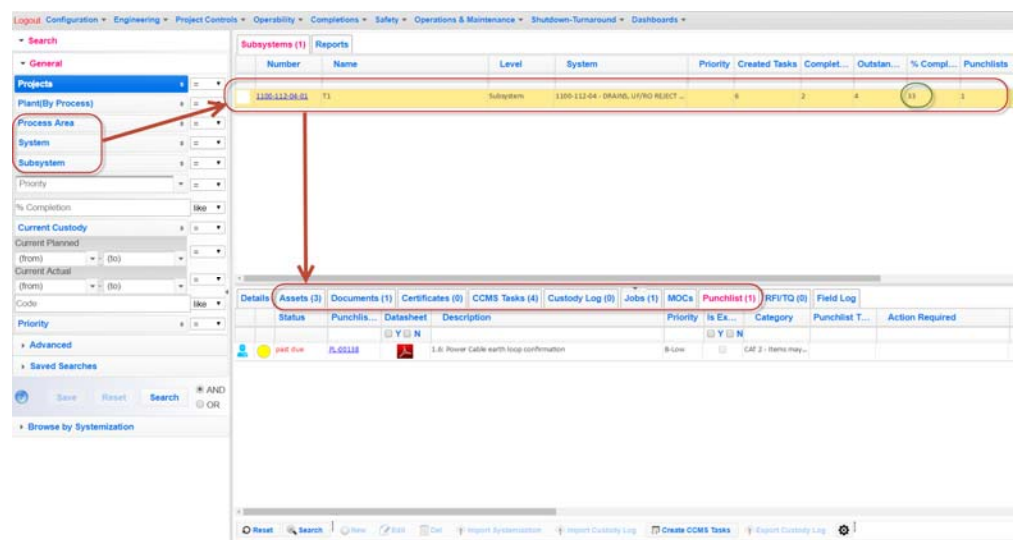


Figure: Subsystems Completion module

