



EUROPEAN
SPALLATION
SOURCE

Description	Engineering Manual
Document number	ESS-XXXXXXX
Date	August 29, 2017
Revision	0.1
State	Early Draft
Classification	Public
Page	1 (12)

ICS Engineering Manual

FOR AN INVENTORY SYSTEM WITH JIRA AND EPICS

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1 Overview

There are infinite ways to develop and maintain an inventory system. However, this inventory is the unique and **temporary** solution for the ICS Lab, especially, where the author works at. This inventory system is designed to minimize our time when we register an item to the existent JIRA ICS HW&I group inventory task. Therefore, it does **NOT** provide any fancy and beautiful ways to interact with users, BUT provide the minimal tool to monitor and track any equipment in ICS, ESS, and any IK partner. And the system only provide the following three features :

- Do stock an item to JIRA, and do Add-and-Print its barcodes.
- Do add-and-print the barcodes of the item, which was registered in JIRA before.
- Delete an item from JIRA

1.1 Inventory Workflow

1.1.1 How to stock an item at the first time to JIRA

The mandatory steps are defined the following procedures :

1. Scan the Serial Number on the equipment with the Xenon 190x barcode scanner.
2. Scan one of 3.3 Model Codes in the manual with the Xenon 190x scanner.
3. Both case in below, the created labels are attached in the JIRA issue.
 - a) Scan Enable Label Printing after JIRA action if one wants to print labels (Default)
 - b) Scan Disable Label Printing after JIRA action if one wants not print labels
4. Scan Create an JIRA issue in the manual
5. Attach two barcodes in the reserved box, an equipment, or both.

1.1.2 How to add and print barcodes for an Item which has registered in JIRA

1. Define the TAG number which one wants to delete it via caput
caput ICSLAB:IssueNumber TAG-XXX
2. Scan the Serial Number on the equipment with the Xenon 190x barcode scanner.
3. Scan Model Name in the manual with the Xenon 190x scanner.
4. Both case in below, the updated labels are attached in the JIRA issue.

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- a) Scan Enable Label Printing after JIRA action if one wants to print the updated label (Default)
- b) Scan Disable Label Printing after JIRA action if one wants not print the updated label

5. Scan Update an JIRA issue in the manual

1.1.3 How to delete the existent Item

1. Define the TAG number which one wants to delete it via caput
caput ICSSLAB:IssueNumber TAG-XXX
2. Scan Delete an JIRA issue Barcode in the manual with the Xenon 190x barcode scanner.

1.2 Components

1.2.1 Hardware

- Honeywell Xenon 1900g (Wire) or 1902g (Wireless) Barcode scanner
- DYMO LabelWriter 450 Duo

1.2.2 Software

- Linux OS
- EPICS IOC <https://github.com/jeonghanlee/hw-xenon1900>
- JIRA <https://jira.esss.lu.se/projects/TAG/summary>
- DYMO LabelWriter 450 Duo CUP Driver
<http://www.dymo.com/en-US/dymo-label-sdk-and-cups-drivers-for-linux-dymo-label-sdk-cups-linux-p--1>

1.3 Troubleshooting

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2 Honeywell Xenon Scanners 1900 and 1902g

Note that there are different procedure to setup Xenon 1900 corded scanner and Xenon 1902g cordless scanner. Please consult each manual in detail.

2.1 Basic Configuration



Figure 1 Default Settings.



Figure 2 USB Serial Setting.



Figure 3 Silent Mode for Corded Scanner.

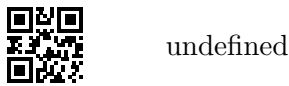


Figure 4 Silent Mode for Cordless Scanner.

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3 Predefined Bar Codes

3.1 Vendor Codes



undefined



ess



mrf



ioxos



moxa



nat



concurrent



schroff

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struck



caen



raritan



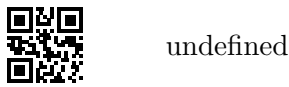
dymo



Honeywell

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3.2 FormFactor Codes



undefined



MTCA



PCIE











VME



FMC

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3.3 Model Codes

	undefined
	PCIE EVR 300DC
	MTCA EVR 300U
	Concurrent CPU
	MTCA 3U Crate
	NAT Power Module
	NAT MCH PHYS
	Barcode Scanner Xenon 190x

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Dymo LabelWriter 450 Duo



IOxOS ADC 3110 A0



IOxOS ADC 3117



IOxOS IFC1410



IOxOS IFC1420



MRF VME-EVG-230



MRF VME-FOUT-12

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4 Action Bar Codes



Clear all scanned PVs



————— place holder —————



Enable Label Printing after JIRA action



Disable Label Printing after JIRA action



Print the last existent label



————— place holder —————



Create an JIRA issue



Update an JIRA issue (Define the issue number first)

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Delete an JIRA issue (Define the issue number first)

5 Outlook