AIMS Equipment Allocation Process

Document Number: CRL1-XRL-Z3-GPS-CR001-50011

Document History:

Version:	Date:	Prepared by:	Checked by:	Authorised by:	Reason for Revision:
1.0	14th January 2016	[redacted]	[redacted]	[redacted]	First Issue
2.0	29-Mar-2017	[redacted]	[redacted]	[redacted]	Process changed to work against reporting stream

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1 Purpose

This document describes the process which is to be used to allocate Equipment Types (ET), Batch Numbers (or Items) (BN) and Serial Numbers (or Items) (SN) to Asset Tags within the Asset Information System (AIMS).

For the creation of ET's, BN's and SN's the AIMS Equipment Request Process (CRL1-XRL-Z3-GPS-CR001-50009) should be followed.

2 Scope

This process relates to the allocation of Equipment Types and batch/Serial items within the AIMS system and can be used to allocate or remove an installed ET and/or configure/un-configure an SB/SN against an Asset Tag.

Further detailed information on Equipment, Batch/Serial Items and Categorisation can be found in the eB document: CRL1-XRL-Z3-GUI-CR001-50028 '*AIMS Equipment Guidance Document*'

2.1 Equipment Types

Equipment Types are identified within the AIMS system in a number of ways:

- They are of the Physical Item object type;
- They have the prefix of EQ on the Equipment Type code.

Equipment Types will always have the following associated information held against them within the AIMS system:

- The Manufacturer
- The Asset Class
- The Make/Model
- Equipment Description

The primary purpose of Equipment Types within AIMS is to allow for the recording of which Equipment Type (Make and Model) have been used to fulfil an Asset Tag requirement.

Equipment Types can only be installed against an asset tag which has the same class as itself.

2.2 Batch/Serial Items

Batch and Serial items are identified within the AIMS system in a number of ways:

- They are of the Serialized Item object type;
- They have the prefix of SB for Batches and SN for Serial Items.

Batch and Serial items will always have the following associated information held against them within the AIMS system:

- The Associated Equipment Type.

The primary purpose of Batch/Serial Items within AIMS is to facilitate traceability of instances of equipment which have been installed at a specific location i.e. used to fulfil an Asset Tag requirement.

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Batch and Serial items are uniquely identified within AIMS by the concatenation of the SB/SN number and the EQ Number i.e. EQ00000001 + SN-00001.

Batch and Serial items will have a manufacturer serial/batch ID number recoded against them and can optionally have a contractor ID number recorded against them.

Batch and Serial items will be allocated to a contract and only that contract will be able to use them.

A Serial Item can only be configured against a single asset where as a batch item can be configured against numerous assets.

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3 Definitions

For a full list of common Asset related terms see the Crossrail Asset Information Glossary (eB document CRL1-XRL-Z3-GUI-CR001-50012).

Terms/acronyms specific to this document are listed below:

Acronym	Name	Description
ACT	AIMS Configuration Team	CRL Team that manages the review of AIMS related potential configuration changes and implementation of approved changes.
APT	AIMS Provisioning Team	
ET	Equipment Type	A type of object in the AIMS (eB) database used to represent a make and model of equipment (CAT 1)
EAS	Equipment Allocation Schedule	A Type of ADCS which is used for the allocation of ET's, SB's and SN's against Asset Tags
ADCS	Asset Data Collection Spreadsheet	An Excel spreadsheet form used in the collection of Asset data to be populated into AIMS
SN	Serial Item (Number)	A Number used to represent an instance of equipment.
SB	Serial Batch	A Number used to represent a batch of equipment.
	Installed	A term used to define that an ET is installed against an asset in AIMS
	Configured	A term used to define that an SN/SB is configured (installed) against an asset in AIMS

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4 Process Timeframes

The AIMS Configuration Team (ACT) will always endeavour to process Equipment Allocation Schedule (EAS) requests in as shortest time as possible; the following lists the target times for the different types of requests when submitted on a correctly validated ERF.

EAS Activity	Timeframe (Working Days)
Production of new EAS	5
Turnaround of EAS by Contractor	40
Processing of populated EAS into AIMS	5

5 Equipment Allocation Schedule Configuration

EAS configuration (or contents) will be defined in terms of Assets included by the Construction Contract and Reporting Stream allocated to the asset tags. In addition all ET's, SB's and SN's which have been allocated to the contract will be available within the EAS.

The following details the purpose of and the information requirements when populating an EAS:

<u>Underlined</u> text refers to the column name in the Equipment Allocation Schedule (EAS).

<u>Double Underlined</u> text refers to the column group name in the Equipment Allocation Schedule (EAS).

All EAS's will have the cover sheet populated to define the assets it relates too. An Instance of an Asset Tag ID will only ever exist on a single EAS.

The only information required to be populated on an EAS are, EQ Number (Equipment Details) and CRL ID (Serial-Batch items). All other information is to aid in the correct allocation of items to the asset tags.

5.1 EAS Details (Sheet)

- Purpose
  - The EAS can be used to allocate ET's against an asset tag (Installed) and/or configure SB/SN's against an asset tag.
  - The EAS can be used to Remove or Change a currently installed ET against an asset tag.
  - The EAS can be used to un-configure an SB/SN from an asset tag.
- EAS Information
  - <u>Asset Tag Details</u>
    - <u>ID</u>
      - The Asset Tag ID of the asset as held in AIMS
    - <u>Name</u>

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        - The name of the Asset Tag as held in AIMS
    - Description
        - The Description of the Asset Tag as held in AIMS
    - Class Code
        - The class code of the Asset Tag as held in AIMS. ET's allocated against the asset must be of the same class code as held here.
    - Class Name
        - The class name of the Asset Tag as held in AIMS.
    - Provisional Category
        - The provisional equipment category of the asset tags class

- Equipment Details
    - EQ Number
        - The EQ Number of the ET as held in AIMS.
            - This item will be populated to make an allocation of an ET to an asset.
    - EQ Description
        - The description of the ET as held in AIMS.
    - EQ Class
        - The class code of the ET as held in AIMS. ET's allocated against the asset must be of the same class code as the asset.
    - Model/Type
        - The model number by which the equipment is known by the manufacturer.
    - ET Category
        - The equipment category which has been allocated to that specific ET. This may differ from the class provisional categorisation.
- Serial-Batch Item
    - CRL ID
        - The SB or SN number which is configured or to be configured against the asset tag.
            - The SB/SN number will be of the associated ET which has been installed against the asset. This is only populated when ET with a category of Cat 2 or Cat 3 have been installed to the asset tag.
            - This item will be populated to configure a Batch/Serial items against an asset
    - Contractor ID
        - The contractor supplied ID for that SN or SB.
            - This information is provided through the equipment request process.
    - Manufacture ID
        - The Manufacturer Batch/Serial number for the item
            - This information is provided through the equipment request process.
    - EAS Usage
        - The number of times that SN/SB number has been used in the EAS

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            - Serial items should only be used once
            - Batch Items may be used many times
        - Other Usage
            - The number of times the SN/SB number has been used on asset tags which are not held in the current EAS
                - This information is a guide only and is only correct at the point the EAS is produced.
        - Total Usage
            - A sum of the EAS Usage and the Other Usage

    - Schedule Changes
        - ET Allocation
            - The status of ET allocation for that row in the EAS.
                - Can be; New, Removed and Changed
        - Serial Allocation
            - The status of the SN/SB allocation for that row in the EAS
                - Can be; New, Removed and Changed
    - Existing Allocation
        - EQ Number
            - The ET which was allocated to the asset at the time of producing the EAS
        - Serial Number
            - The SN/SB configured to the asset at the time of producing the EAS

5.2 ET List Details (Sheet)

- Purpose
    - The ET List is given for information purposes and details all of the ET's which can be used by the contract and as such can be used in the EAS.
    - No information has to be populated into the ET List

5.3 Serial List Details (Sheet)

- Purpose
    - The Serial List is given for information purposes and details all of the Batch/Serial items which can be used by the contract and as such can be used in the EAS.
    - No information has to be populated into the Serial List

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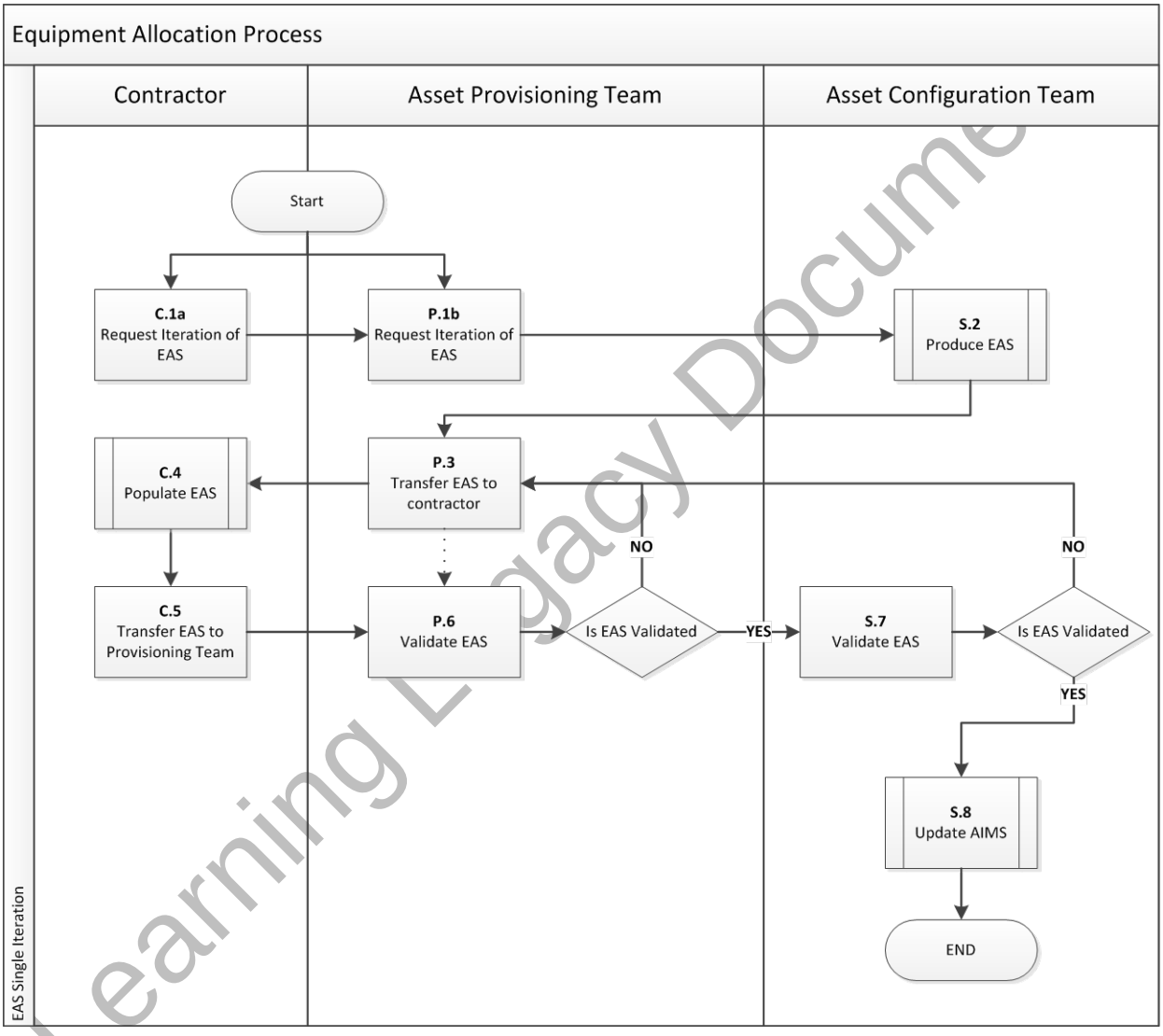
6 Equipment Allocation Process

The following process should be followed to allocate ET and Serial/Batch items against the contracts assets. The population of equipment against assets is an iterative process and the following process details one iteration of the EAS.

6.1 Process Diagram



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6.2 Process Steps

Steps prefixed C, are performed by the Contractor.

Steps prefixed S, are performed by the ACT.

Steps prefixed P, are performed by the APT.

Steps suffixed with a letter form part of an optional step which may not need to be performed in all cases.

C.1a Request EAS (Contractor)

A contractor can request the first or next iteration of the EAS via the Asset Information Technician (AIT). This request should detail the reporting streamof assets which is being requested.

P.1b Request EAS (APT)

An AIT can request, on behalf of, or on request from the contractor. This request should detail the reporting stream and contract of assets which is being requested. This request should be sent to the ACT email address and include EAS in the subject for quick identification.

AIM-CMSystems@crossrail.co.uk

If there is a recently submitted Equipment request which the EAS is be dependent on this should be highlighted.

S.2 Produce EAS

The ACT will produce the EAS for the requested reporting streamand contract and will send the EAS to the AIT via email. The EAS will be configured with all of the ET and SN/SB numbers allocated to the contract at the time of the request.

If the EAS is dependent on an equipment request which has yet to be completed the production of the EAS will be delayed until its completion. If this is likely to cause significant delay then the AIT will be contacted to ascertain how they would like to us to proceed.

P.3 Transfer EAS

The AIT will transfer the EAS to the contractor with any applicable guidance.

C.4 Populate EAS

The contractor will populate the EAS in line with the required information following the '*Populating an EAS*' guidance section of this document.

C.5 Transfer EAS

The contractor will transfer the EAS to the AIT

P.6 Validate EAS

The AIT will perform validation checks on the populated EAS. If the EAS fails the AIT validation they will transfer the EAS back to the contractor via step P.3 of this process. If the EAS passes

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the AIT validation they will transfer the EAS back to the ACT via the ACT email address and include EAS in the subject for quick identification.

AIM-CMSystems@crossrail.co.uk

S.7 Validate EAS

The ACT will validate the EAS with (but not limited to) the following checks:

- Only EQ applicable to the contract have been used.
- EQ allocated to an Asset are of the same class as the asset.
- Only Assets contained on the original EAS are contained.
- SN/SB numbers allocated to an asset are applicable to the ET.
- SN/SB numbers allocated are applicable to the contract.
- SN numbers have not previously been allocated to another asset (unless that asset is in the same EAS and has been removed from that asset in the same EAS Or the asset is on another EAS which has been submitted for processing and that EAS also removes the SN number from an asset)

If an EAS fails the validation then it will be returned to the AIT via email detailing the validation failures at step P.3. The AIT may then decide to correct the validation issues themselves and move to step P.6 of this process OR return the EAS to the contractor for correction.

S.8 Update AIMS

The ACT will process the validated EAS into AIMS.

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7 Populating an EAS

The purpose of this section is to give guidance on working with an EAS to maintain correct configuration and thus ensure that EAS pass through any validation checks.

It is understood that some contractors will automate their population of the EAS which is accepted by CRL as long as the EAS is populated with valid configurations of ET/SN/SB numbers. This population should be done into the EAS transferred to the contractor to allow for automated validation/processing by CRL.

7.1 Allocating an ET

In the EQ number column of the Equipment Details section of the EAS enter the applicable EQ number.

If the cell contains a tilde that indicates that no ET of the class of the asset have been configured for the contract at the time the EAS was produced.

For cells which do not contain a tilde, select the cell and click the arrow which appears. This will display a list of the EQ numbers which can be allocated to that asset.

Alternatively if the required EQ number is known it can be typed directly into the cell.

If an EQ number is being copied into the cell use paste values otherwise the EQ number lookup functionality will be removed from that cell.

7.2 Configuring an SN/SB

Ensure that the correct ET has been allocated to the asset.

In the CRL ID column of the Serial-Batch Item section of the EAS enter the applicable SN or SB number.

If the cell contains a tilde that indicates that no SN or SB of the allocated ET have been configured for the contract at the time the EAS was produced.

For cells which do not contain a tilde, select the cell and click the arrow which appears. This will display a list of the SN or SB numbers which can be configured to that asset.

Alternatively if the required SN or SB number is known it can be typed directly into the cell.

If an SB number is being copied into the cell use paste values otherwise the SB number lookup functionality will be removed from that cell. SN is unlikely to be copied as an SN number for an ET can only be used once.

7.3 Removing an SN/SB

To remove a SN or SB number from an asset select the required cell and press the backspace or delete key

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7.4 Removing an ET

Ensure that any SN or SB number that has been allocated to the asset has previously been removed in the EAS.

To remove a EQ number from an asset select the required cell and press the backspace or delete key

7.5 Changing SN/SB

To change an SN/SB number select in the required cell and either use the drop arrow to display the list of available SN/SB numbers or if the new SN/SB number is known type directly into the cell.

7.6 Changing ET

Before changing an ET any configured SN/SB numbers should be removed from the asset in the EAS. If this is not done it is possible to allocate a SN/SB number which is not applicable to the new ET. This could cause at best a validation failure when the EAS is submitted or at worst allocate the incorrect SN/SB number to the asset.

To change an EQ number select in the required cell and either use the drop arrow to display the list of available SN/SB numbers or if the new SN/SB number is known type directly into the cell.

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8 Appendix

8.1 EAS

8.1.1 Cover Sheet

AIMS Equipment Allocation Schedule (EAS) Asset Data Collection Spreadsheet (ADCS)

Title:

Contract:

Reportingstream:

Iteration:

Document number:

Document Revision:

Revision History

Date:	*Produced By:*	*Reason for Issue:*

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8.1.2 EAS Sheet

Asset Tag Details			Equipment Details							Serial-Batch Item						Schedule Changes		Existing Allocation	
ID	Name	Description	Class Cod	Class Nam	Provision al Categ	EQ Numb	ET Descripti	ET Clas	Model/Type	ET Cat or	CRL ID	Contractor ID	Manufactur e ID	EAS Usa	Other Usage	Total Usage	ET Allocat n	Serial Allocat n	EQ Numb	Serial Number
X999-LEC-00001	DEMO-L5-PLATFORM - ESCALATOR - BALUSTRADE SYSTEM 001	TICKET HALL TO CRL PLATFORM LEVEL 5	L772211	Balustrade System	Cat 0	"	"	"	"	"	"	"	"	"	"	"				
X999-LEC-00002	DEMO- L5-PLATFORM - ESCALATOR-BALUSTRADE SYSTEM 002	TICKET HALL TO CRL PLATFORM LEVEL 6	L772211	Balustrade System	Cat 0	"	"	"	"	"	"	"	"	"	"	"				
X999-LEC-00003	DEMO - L5 - PLATFORM - ESCALATOR - ESCALATOR HANDRAILS 001	TICKET HALL TO CRL PLATFORM LEVEL 5	L772212	Escalator Handrails	Cat 0	DEQ001	DEMO - ESCALATOR HANDRAILS - ACME - DEMO-0001	L772212	DEMO-0001	Cat 1	"	"	"	"	"	"			DEQ001	
X999-LEC-00004	DEMO - L5 - PLATFORM - ESCALATOR - ESCALATOR HANDRAILS 002	TICKET HALL TO CRL PLATFORM LEVEL 6	L772212	Escalator Handrails	Cat 0	DEQ001	DEMO - ESCALATOR HANDRAILS - ME - DEMO-1	L772212	DEMO-0001	Cat 1	"	"	"	"	"	"			DEQ001	
X999-LEC-00005	DEMO-L5-PLATFORM -		L772212		Cat 0	DEQ002	DEMO - ESCALATOR	L772212	DEMO-0002	Cat 1	"	"	"						DEQ002	

8.1.3 Equipment List Sheet

EQ Number	ET Description	ET Extended Description	ET Class	Model/Type	ET Category
DEQ001	DEMO - ESCALATOR HANDRAILS - ACME - DEMO-0001	Acme black Handrails	L772212	DEMO-0001	Cat 1
DEQ002	DEMO - ESCALATOR GUARDS - ACME - DEMO-0002	Acme 500mm Guards	L772213	DEMO-0002	Cat 1
DEQ003	DEMO - HANDRAIL TRACK SYSTEM - ACME - DEMO-0003	Acme Power Pull Handrail Track	L772232	DEMO-0003	Cat 1
DEQ004	DEMO - ESCALATOR TRACK SYSTEM - ACME - DEMO-0004	Acme Power Pull Track	L772238	DEMO-0004	Cat 1
DEQ005	DEMO - ESCALATOR STEPS - ACME - DEMO-0005	Acme 800mm HD Steps	L772221	DEMO-0005	Cat 2
DEQ006	DEMO - TENSION CARRIAGE - ACME - DEMO-0006		L772222	DEMO-0006	Cat 1

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8.1.4 Serial List Sheet

EQ Number	Serial Number	Serial Type	Contractor ID	Manufacturer ID	Installed Count	Installed Against	Installed Contract	Installed Workstream
DEQ005	DSN-0001	Unknown	-	DEMO-abc1/45/99-C	1	-	DEMO	2
DEQ005	DSN-0013	Unknown	-	DEMO-abc1/45/99-X	0	-	~	~
DEQ010	DSN-0002	Unknown	-	DEMO-abc1/45/99-D	0	-	~	~
DEQ011	DSN-0003	Unknown	-	DEMO-xxx-yyy-A	0	-	~	~
DEQ012	DSN-0004	Unknown	-	DEMO-123567	0	-	~	~
DEQ015	DSN-0005	Unknown	-	DEMO-abc1/XY	0	-	~	~
DEQ016	DSN-0006	Unknown	-	DEMO-aaaa	0	-	~	~

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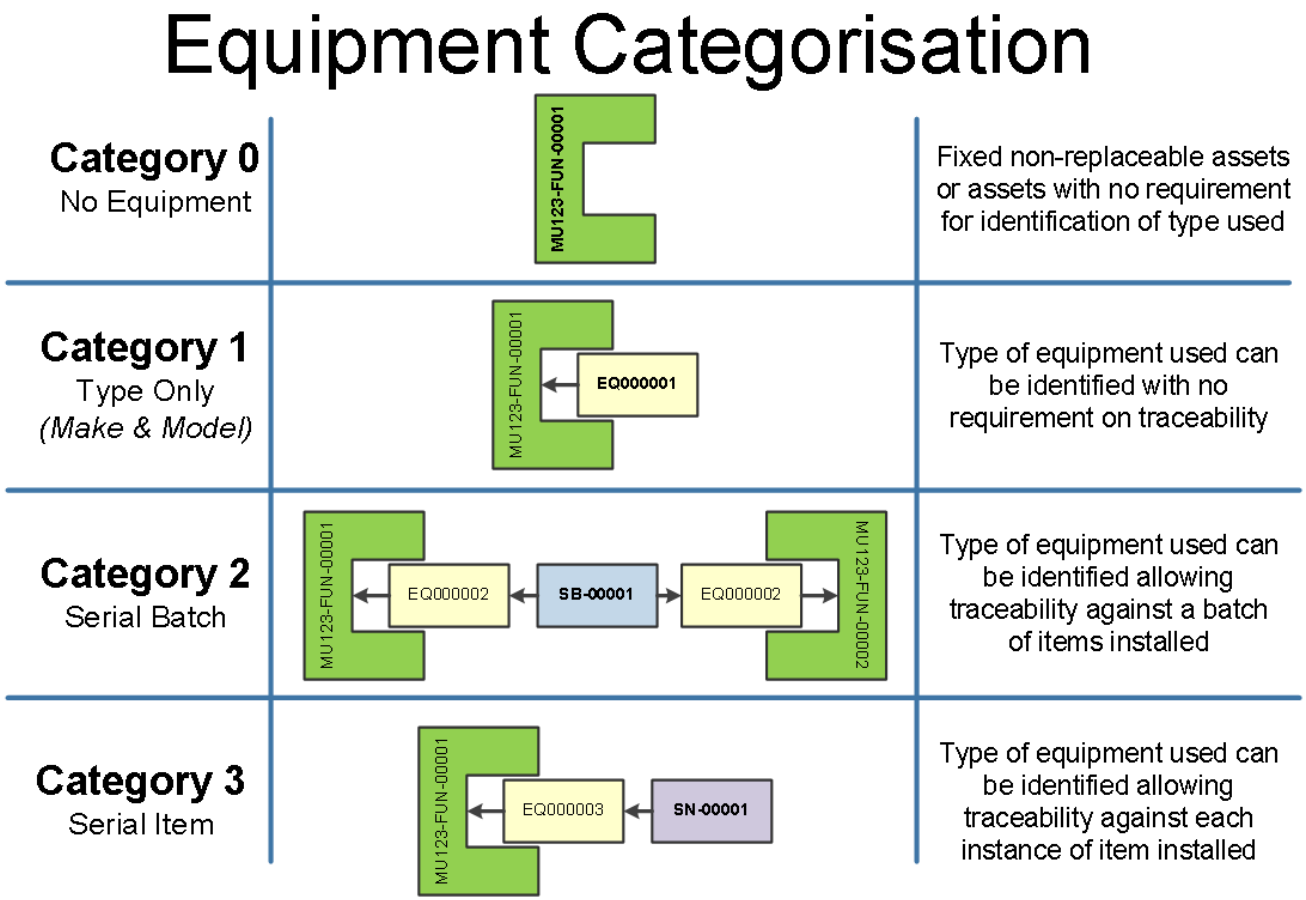
8.2 Equipment Categorisation Diagram



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