DIRECTORATE OF ESTATES & FACILITIES

ORACLE ENTERPRISE ASSET MANAGEMENT – ASSET GROUP DATA REQUIREMENTS

EPM PM24

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Document Purpose

This document defines the asset data requirement to populate the University of Manchester's Asset Management System (Oracle Enterprise Asset Management). This document is designed to be applied in conjunction with EPM GM25 (Employers Information Requirements).

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1. Managed Assets

1.1. Retained Assets

Asset numbers of all retained assets must be provided by the Project Delivery team. Retained assets must be modelled in 3d and data must be assigned as detailed in Section 2.

1.2. Removed Assets

Asset numbers of all removed assets must be provided by the Project Delivery team.

1.3. New Assets

Oracle Enterprise Asset Management contains information about the University of Manchester's managed assets. Managed assets contained in the list below require asset data to be populated against them. The table below should be cross referenced with EPM FM1. Any new asset groups required should be raised with UoM Professional Services Unit.

The 3-digit asset group code needs to be applied to the model in accordance with Section 2 and 3 below.

Assets identified below in the 'Modelled in 3d' section should be included in the 3d model. Other asset information can be provided in 2d and manually added to the asset register as required.

Where assets below are systems such as CHILLED WATER SYSTEM these are recorded as a single entry in Oracle for the complete system.

Element	Asset Group	Sub Element	Modelled in 3d	CI/SfB
Mechanical	ACL	AUTOCLAVE	Х	50
Mechanical	ACC	AIR CONDITIONING CASSETTE	X	50
Mechanical	ACU	AIR CONDITIONING UNIT	Х	50
Mechanical	ACT	ACID COLLECTION TANK	Х	50
Mechanical	ADP	ACID DISCHARGE PUMP	Х	50
Mechanical	ADS	AIR DIRT SEPARATOR	Х	50
Mechanical	AEC	AIR COMPRESSOR	Х	54
Mechanical	AER	AIR RECEIVER	Х	50
Mechanical	AHU	AIR HANDLING UNIT	Х	50
Mechanical	ASF	AIR SUPPLY FAN	Х	50
Mechanical	BDV	BLOWDOWN VESSEL	Х	50
Mechanical	BLR	BOILERS	Х	50
Mechanical	BWS	BOOSTED COLD WATER	Х	53
Mechanical	BMS	BMS SYSTEM		50
Mechanical	CDR	CONDENSE RECEIVER	Х	50
Mechanical	CFT	COLD FEED TANK	Х	53
Mechanical	CHI	CHIMNEY	Х	50
Mechanical	CHL	CHILLER	X	50
Mechanical	CCR	CORROSION COUPON RACK	Х	50

Element	Asset Group	Sub Element	Modelled in 3d	CI/SfB
Mechanical	CWS	CHILLED WATER SYSTEM (DISTRIBUTION SYSTEM)	Х	53
Mechanical	DCL	DOMESTIC CALORIFIER	Х	50
Mechanical	DEW	DEWER	Х	50
Mechanical	DFZ	DEEP FREEZES	Х	50
Mechanical	DRY	AIR DRYER (COMP AIR)	Х	50
Mechanical	DUC	DUCTWORK SYSTEM (DISTRIBUTION)	Х	57
Mechanical	DWF	DOMESTIC WATER FILTER	Х	53
Mechanical	DWS	DOMESTIC WATER SYSTEM (DISTRIBUTION)	Х	53
Mechanical	ECO	BOILER ECONOMISER	Х	50
Mechanical	EMS	EMERGENCY SHOWER	Х	50
Mechanical	EWS	EYE WASH STATIONS	Х	50
Mechanical	EXT	GENERAL EXTRACT FANS	Х	57
Mechanical	EXV	EXPANSION VESSELS	Х	56
Mechanical	FCU	FAN COIL UNITS	Х	56
Mechanical	FCX	FUME CUPBOARD EXT FANS	Х	57
Mechanical	EWH	ELECTRIC WATER HEATERS	Х	51
Mechanical	ECV	EMERGENCY CUT OFF VALVE	Х	50
Mechanical	FLO	URINAL FLOW CONTROLS	Х	50
Mechanical	FIL	FILTRATION SYSTEM	Х	53
Mechanical	FTN	FUEL TANK	Х	50
Mechanical	GAS	GAS PIPEWORK (DISTRIBUTION SYSTEM)	Х	54
Mechanical	GBP	GAS BOOSTER PUMP	Х	54
Mechanical	GEX	GENERAL EXTRACT FAN	Х	57
Mechanical	GHU	GENERAL AIR HEATERS	Х	56
Mechanical	GTR	DRAINS GREASE TRAP	Х	52
Mechanical	GXT	GAS EXHAUST FAN	Х	54
Mechanical	GWH	GAS WATER HEATER	X	54
Mechanical	HBO	STEAM OIL HEATERS	X	50
Mechanical	HCL	HEATING CALORIFIER	X	56
Mechanical	HWB	HOT WATER BOILER	X	53
Mechanical	HRE	HOSE REELS	X	50
Mechanical	HTG	HEATING SYSTEM (DISTRIBUTION)	X	56
Mechanical	HTW	STEAM BOILER HOTWELL	X	50
Mechanical	HUM	HUMIDIFIERS	X	57
Mechanical	KEC	KITCHEN EXTRACT CANOPY	X	57
Mechanical	KED	KITCHEN EXTRACT DUCTWORK	X	57
Mechanical	MTR	GAS, ELEC,+ WATER METERS.	X	50
Mechanical	OIL	OIL TANK	X	50
Mechanical	PCS	PROCESS COOLING SYSTEM	X	53
Mechanical	PCP	CHILLED WATER PRIMARIES	X	53
Mechanical	PHE		X	50
Mechanical	PHP		^ 	50
Mechanical	POI	PETROL/OIL INTERCEPTORS	× ×	52
Mechanical	PRM	PLANTROOM E	^ 	50
Mechanical	PMP	PUMP	× ×	50
Mechanical	PRU	PRESSURE REDUCING UNIT	X	50

Element	Asset Group	Sub Element	Modelled in 3d	CI/SfB
Mechanical	PRV	PRESSURE RELIEF VALVE	Х	50
Mechanical	PSA	PRESSURE SYSTEM STEAM	Х	50
Mechanical	PSU	PRESSURISATION UNIT	Х	50
Mechanical	PWK	PRESSURE PIPEWORK	Х	50
Mechanical	ROM	REVERSE OSMOSIS PLANT	Х	50
Mechanical	SEP	SEPTIC TANK	Х	52
Mechanical	SHW	SHOWER HEAD	Х	46
Mechanical	SMT	STEAM METERS	Х	50
Mechanical	SOL	SOLAR THERMAL SYSTEM	Х	56
Mechanical	SPI	SUN PIPES	Х	56
Mechanical	SUP	SUMP PUMP	Х	52
Mechanical	SVA	SAFETY VALVES	Х	50
Mechanical	SVT	STEAM VENT	Х	50
Mechanical	TEX	TOILET EXTRACT FAN	Х	57
Mechanical	TMV	THERMOSTATIC MIXING VALVE	Х	53
Mechanical	UTG	EXTERNAL GAS INFRASTIUCTURE	Х	54
Mechanical	UTS	EXTERNAL STEAM INFRASTRUCTURE	Х	50
Mechanical	UTW	EXTERNAL WATER INFRASTRUCTURE	Х	53
Mechanical	UVS	ULTRA VIOLET STERILISER	Х	50
Mechanical	VAV	VAV BOXES	Х	57
Mechanical	WSO	WATER SOFTENER PLANT	Х	53
Mechanical	WSV	WATER STOP VALVE	Х	53
Mechanical	WXT	WELDING EXTRACT FAN	Х	57
Element	Asset Group	Sub Element		
Electrical	ELE	ELECTRICAL SYSTEM (BUILDING)	Х	60
Electrical	SWI	SWITCHROOM	Х	60
Electrical	SUB	SUB STATION	X	62
Electrical	GEN	EMERGENCY GENERATOR	Х	62
Electrical	EML	EMERGENCY LIGHTING SYSTEM	Х	63
Electrical	EMB	EMERGENCY BATTERIES	Х	62
Electrical	CBU	CENTRAL BATTERY UNIT EMERGENCY BATTERIES	X	62
Electrical	HVS	HIGH VOLTAGE SWITCHGEAR	Х	60
Electrical	OHL	OUTDOOR HIGH LIGHT	Х	63
Electrical	ELC	LIGHTING CONTROLS	Х	63
Electrical	ELP	LIGHTNING PROTECTION	Х	69
Electrical	EOL	OUTSIDE LIGHTING	X	63
Electrical	PFC	POWER FACTOR CORRECTION UNIT	Х	62
Electrical	EPV	PHOTOVOLTAIC INSTALLATION	Х	62
Electrical	CTV	CCTV SYSTEM	Х	68
Electrical	EAC	ACCESS CONTROL SYSTEM	Х	68
Electrical	EIA	INTRUDER ALARM SYSTEM	Х	68
Electrical	ERS	ROLLER SHUTTER	X	
Electrical	EAD	AUTOMATIC DOORS	X	
Electrical	CPB	CAR PARK BARRIERS	X	
Electrical	EAG	AUTOMATIC GATES	X	

Element	Asset Group	Sub Element Modelled in 3d			
Electrical	SWI	SWITCHROOMS X			
Element	Asset Group	Sub Element			
Building	DSU	DRAINAGE (ABOVE GROUND)	Х	52	
Building	EYE	EYEBOLTS		44	
Building	FAL	FIXED ACCESS LADDER	Х	44	
Building	FAS	FALL ARREST SYSTEM	Х	44	
Building	FLR	BUILDING FLOOR	Х	23	
Building	GUT	GUTTERS & LIGHTWELLS	Х	47	
Building	LDI	LAND DITCHES	Х	52	
Building	LTI	LADDER TIES		44	
Building	MEZ	BUILDING MEZZANINE	Х	23	
Building	RAI	ROOFS	Х	27	
Building	RPI	ROAD/PATHWAYS	Х		
Building	RWS	RAMPS, WALKWAYS & STAIRS	Х	24	
Building	SGI	STAINED GLASS	Х	31	
Building	WIN	WINDOW OPENERS		31	
Building	ABS	ABSEIL RINGS		44	
Building	TNL	TUNNEL	Х		
Building	CHN	CHANDELIER LIFTS	Х	50	
Building	BIS	BUILDING INTERNAL SURFACES		42	
Building	BCH	CHANDELIER LIFTING GEARS	Х	50	
Building	BDP	DRAINAGE PIPES AND DRAINS (BELOW GROUND)	Х	52	
Building	BDW	DRAINAGE WATERCOURSES	Х	52	
Building	FES	EXTERNAL FIRE ESCAPE STAIRS	Х	24	
Building	BEF	EXTERNAL FIXTURES	Х	95	
Building	BEH	EXTERNAL HARDSTANDINGS	Х	92	
Building	BEP	EXTERNAL WALL FABRIC	Х	31	
Building	FAL	FIXED ACCESS LADDERS, PLATFORMS AND GANTRIES.	Х	34	
Building	BGR	GREEN ROOF	Х	27	
Building	BIF	INTERNAL FIXTURES - FOLDING PARTITIONS, MOBILE RACKING, RETRACTABLE SEATING,	X	32	
Building	BDM	MOTORISED SHUTTER DOORS TO P/ ROOM/GOODS AREA.	Х	31	
Building	BEF	RAILINGS/GATES X		34	
Building	BRD	ROOF DRAINAGE		47	
Building	BDD	ROOF EXIT DOORS (INCLUDING LIFT MOTORXRM,TANK RM ECT)		47	
Building	RVI	ROOF INTERNAL - STRUCTURAL FRAME ROOF X VOIDS X		37	
Building	BRW	ROOF LIGHTS -NORTHLIGHT + ETFE +SUNPIPES, X ETC		37	
Building	BRS	ROOF SAFETY SYSTEMS X		34	
Building	BED	L/WELLS	X	52	
Building	BEW	WINDOWS-EXTERNAL	^	31	
Element	Group	Sub Element			
Fire	ABE	BEACONS	X	67	
Fire	DAS	DEAF ALERTER SYSTEMS	Х	67	

Element	Asset Group	Sub Element Modelled in 3d			
Fire	DGD	DORGUARD DEVICES		67	
Fire	DTD	DÉTENTE DEVISES		67	
Fire	DWR	DRY/WET RISERS	Х	67	
Fire	ECL	EVACUATION LIFTS	Х	67	
Fire	EVC	EVAC CHAIRS	Х	67	
Fire	EXH	EXTINGUISHERS	Х	67	
Fire	FAB	FIRE ALARM LINKS TO BMS		67	
Fire	FDA	FIRE DAMPER AUTOMATIC (MOTORISED)	Х	67	
Fire	FDM	FIRE DAMPER FUSIBLE LINK	Х	67	
Fire	FDU	FIRE RATED DUCTWORK	Х	67	
Fire	FES	FIRE ESCAPE	Х	67	
Fire	FRA	FIRE ALARMS	Х	67	
Fire	FRD	FIRE DOORS	Х	67	
Fire	FRE	FIRE EXITS	Х	67	
Fire	FRS	FIRE SUPPRESSION SYSTEMS	Х	67	
Fire	FSD	FIRE/SMOKE DAMPERS	Х	67	
Fire	FSS	FIRE SUPRESSION SYSTEMS	X	67	
Fire	HOR	HOSE REELS	Х	67	
Fire	HYD	FIRE HYDRANTS	Х	67	
Fire	RFC	REFUGE COMMUNICATIONS	X	67	
Fire	RQM	RESQMATS	X	67	
Fire	SCP	STAIRCASE PRESSURISATION	Х	67	
Fire	SEF	SMOKE EXTRACT FAN	X	67	
Fire	SES	SMOKE EXTRACT SYSTEM	Х	67	
Fire	SKC	SMOKE CURTAINS	Х	67	
Fire	SPR	SPRINKLERS	Х	67	
Fire	STC	STAIR CLIMBERS		67	
Fire	UTF	EXTERNAL FIRE (WATER) INFRASTRUCTURE	Х	67	
Fire	VAS	VENTILATION & SMOKE (i.e Louvres)	Х	67	
Element	Asset Group	Sub Element			
General	PTE	PERSONAL TEST EQUIPMENT	Х		
General	PAE	PORTABLE ACCESS EQUIPMENT	Х		
General	CRM	COLD ROOMS	Х		
Element	Asset Group	Sub Element			
Lift	LIF	GOODS LIFT /PASSENGER/PLATFORM LIFT	Х	66	
Lift	LCR	CRANE/LIFT OR LIFTING EQUIPMENT	Х	66	
Lift	LAH	ACCESSIBILITY HOIST	Х	66	
Lift	PLE	PORTABLE LIFTING EQUIPMENT	Х	66	
Lift	FLB	FIXED LIFTING BEAM	Х	66	

2. Application of Asset Data

The following fields must be provided against each new and retained managed asset identified in Section 1. These fields should be provided in an excel XLS format.

Fields highlighted in grey below are populated by University of Manchester.

Fields marked with an 'X' must be populated in the model where the asset in modelled in 3d (as defined in Section 1). Other fields can be populated via other methods or can exist in the model to create the excel asset register.

	Field Name	Populated	Populated By	Example Value
Δ	Area	III MOUCI		151
B	Block		UoM	AA
C	Location	X	Project	G 001
D	Asset Category	X	Project	'New' or 'Retained'
Ē		X	Project	CH2-
	Asset description		- ,	AirHandlingUnit: 3544260
F	Manufacturer		Project	Broughton
G	Model		Project	AHU30
Н	Serial No		Project	KN0987720011
I	Schedule name		UoM	
J	Route		UoM	
K	Set name		UoM	
L	Asset group code	Х	Project	AHU
М	Asset no.	Х	Project/UoM	151AAAHU003
Ν	Warranty expiry date		Project	31/10/2019
0	Effective from		UoM	31/10/2017
Р	Date of commission/test		Project	02/10/2017
Q	Next date due for statutory tests		Project	02/05/2018
R	Life Expectancy		Project	10
S	Replacement Cost (time of installation)		Project	1409.10
Т	Comments (optional)		Project	
U	Asset Owner (H&S Arrangements Chapter 23 – Interface Between Estates and Facilities and building owners)		UoM	
V1	OEAM Asset Owner		UoM	
V2	OEAM Organisational ID		UoM	
V3	OEAM Organisational Code		UoM	
V4	OEAM Asset Group ID		UoM	
V5	OEAM Parent Asset		UoM	
V6	OEAM Location ID		UoM	
V7	OEAM Criticality Code		UoM	
V8	OEAM Accounting Class		UoM	
V9	OEAM Maintainable		UoM	
V10	OEAM Network Asset		UoM	
V11	OEAM Owning Department ID		UoM	
U12	OEAM Owning Department		UoM	

2.1. (A) Area

Area is the building number which corresponds to a building name in Oracle.

2.2. (B) Block

Block is the building zone number which makes up the unique asset identifier

2.3. (C) Location

The location is the room number the component is associated to.

2.4. (D) Asset Category

New or retained asset.

2.5. (E) Asset description

Element name in accordance with BS8541. Role-Description-Manufacturer/Size.

The name must be unique, this can be achieved by applying a unique ID (i.e Revit BATID) after the name.

2.6. (F) Manufacturer

Name of manufacturer

2.7. (G) Model Number

Manufacturers model number.

If this is not applicable enter n/a

2.8. (H) Serial No

Manufacturer serial number

2.9. (I) Schedule name, (J) Route, (K) Set name

Fields assigned by UoM prior to upload to Oracle

2.10. (L) Asset group code

3-digit code assigned to all manageable assets in accordance with Section 1 above. Where there is no applicable code assign the value n/a.

2.11. (M) Asset no

The Asset no is comprised of Area/Block/AssetGroupCode/ID. The unique ID is provided by UoM.

2.12. (N) Warranty expiry date

Expiry date of manufacturer's warranty (dd/mm/yyyy).

2.13. (O) Effective from

Date that the warranty begins.

2.14. (P) Date of commission/test

Date of commission or test (dd/mm/yyyy).

2.15. (Q) Next date due for statutory tests

Date of next test (dd/mm/yyyy).

2.16. (R) Life Expectancy

Expected life of product in years.

2.17. (S) Replacement cost

Cost of product (pounds and pence).

2.18. (T) Comments

Any additional relevant comments

2.19. (U) Chapter 23

Asset Owner populated by UoM. Defined in Chapter 23 http://documents.manchester.ac.uk/Doculnfo.aspx?DocID=14843

2.20. (V1-V12) Additional Oracle fields

Populated by UoM after handover

2.21. Example completed sheet

Below is an example of how the excel sheet should be populated at handover. Note that the Asset Number Process in Section 3 must be followed to populate (M) Asset no.

Alternatively, the data can be delivered using the COBie schema as described in Section 4.

Elements identified in the Security section 5.1 of the EIR should delivered on a separate excel sheet.

А	В	С	D	E	F	G	н	1	J	К	L	М	N	0	Р	Q	R	S	т
Area	Block	Location	Asset Categ ory	Asset description	Manufactur er	Model	Serial No	Schedule name	Route	Set name	Asset group code	Asset no.	Warranty expiry date	Effectiv e from	Date of commissio n/ test	Next date due for statutory tests	Life Expect- ancy	Replace- ment Cost (time of installatio n)	Comment s (optional)
		G.001	New	CH2_AirHandlingU nit:3544260	Broughton	AHU30	KN09877 20011				AHU	151AAAH U003	31/10/201 9		02/10/2017	02/05/2018	10	1409.1	
		G.002	New	CH2_AirHandlingU nit:5548923	Broughton	AHU30	KN09845 56700				AHU	151AAAH U004	31/10/201 9		02/10/2017	02/05/2018	10	1409.1	

3. Asset Numbering Process

Consistent asset numbers in the model and in Oracle allow the two to remain interlinked.

The Project team shall apply the Asset Group Code to the modelled components and produce a schedule of managed assets at the end of RIBA Stage 4.

Elements identified in the Security section 5.1 of the EIR should delivered on a separate excel sheet.

Asset Group Code	Asset Description	Asset no.
AHU	CH2_AirHandlingUnit:3544260	
AHU	CH2_AirHandlingUnit:5548923	

The schedule shall have two columns – Asset Group Code and Asset Description and Asset no. It is the responsibility of the Contractor to issue this schedule with the first two columns populated in an excel format to University of Manchester Professional Services Unit.

The Asset no. is comprised of Area, Block, Asset Group Code and a unique ID and will be provided by University of Manchester.

Once the Asset no's are provided the Contractor shall populate these fields in back into the model in the Asset no field.

Asset Group Code	Asset Description	Asset no.
AHU	CH2_AirHandlingUnit:3544260	151AAAHU003
AHU	CH2_AirHandlingUnit:5 <i>548923</i>	151AAAHU004

4. COBie mapping to the OEAM requirements

4.1. Delivery of OEAM data in COBie format

The delivery of the OEAM requirements in the COBie format is **optional**. If the data is delivered in this format it must meet the minimum requirements of the schema as defined in BS1192-4:2013.

COBie Field Name Key
Yellow = Required Field
Peach = Mapped from another sheet or picklist
Purple = External reference from authoring software
Blue = COBie additional attribute

The fields defined in the tables below are required. The application of Uniclass 2015 is also required to populate the Category fields identified in blue in the example fields below.

Where data maps directly to meet OEAM requirements the field (in the Example column) is highlighted in orange.

Example Key
Uniclass 2015 classification
Maps to OEAM requirements
Maps to Archibus for space management requirements

4.2. Contact

The Contact sheet does not have any direct mapping to OEAM requirements

COBie Field Name	COBie Parameter	Example
Email	COBie.Contact.Email	name@email.com
CreatedBy	COBie.Contact.CreatedBy	name@email.com
CreatedOn	COBie.Contact.CreatedOn	2015-08-08T11:00:00
Category	COBie.Contact.Category	From Uniclass 2015 Table PM Project Management
Company	COBie.Contact.Company	Company name
Phone	COBie.Contact.Phone	01 1111 111111
ExtSystem	COBie.Contact.ExtSystem	Authoring Application
ExtObject	COBie.Contact.ExtObject	IfcPersonAndOrganisation
ExtIdentifier	COBie.Contact.ExtIdentifier	0NG5d_R6T8leptpG\$lx7Lx

4.3. Facility

Facility sheet does not map directly to OEAM

COBie Field Name	COBie Parameter	Example
Name	COBie.Facility.Name	(A) Area
CreatedBy	COBie.Facility.CreatedBy	name@email.com
CreatedOn	COBie.Facility.CreatedOn	2015-08-08T11:00:00

COBie Field Name	COBie Parameter	Example
Category	COBie.Facility.Category	Uniclass 2015 Entities Table
ProjectName	COBie.Facility.ProjectName	Should match the Project Name defined in the Employer's Information Requirements
SiteName	COBie.Facility.SiteName	UniversityOfManchester
LinearUnits	COBie.Facility.LinearUnits	Millimetres
AreaUnits	COBie.Facility.AreaUnits	Squaremetres
VolumeUnits	COBie.Facility.VolumeUnits	Cubicmetres
CurrencyUnit	COBie.Facility.CurrencyUnit	Pounds
AreaMeasurement	COBie.Facility.AreaMeasurement	RICS BCIS. The method of measurement specified here should be applied to Floors, Zones and Spaces (5.3.2)
ExternalSystem	COBie.Facility.ExternalSystem	BIM Authoring Application
ExternalProjectObject	COBie.Facility.ExternalProjectObject	IfcProject
ExternalProjectIdentifier	COBie.Facility.ExternalProjectIdentifier	0NG5d_R6T8leptpG\$lx7Lx
ExternalSiteObject	COBie.Facility.ExternalSiteObject	IfcSite
ExternalSiteIdentifier	COBie.Facility.ExternalSiteIdentifier	0NG5d_R6T8leptpG\$lx7Lv
ExternalFacilityObject	COBie.Facility.ExternalFacilityObject	IfcBuilding
ExternalFacilityIdentifier	COBie.Facility.ExternalFacilityIdentifier	0NG5d_R6T8leptpG\$lx7Lw

4.4. Floor

Floors should be named in accordance with GM 11

COBie Field Name	COBie Parameter	Example
Name	COBie.Floor.Name	In accordance with GM11
CreatedBy	COBie.Floor.CreatedBy	name@email.com
CreatedOn	COBie.Floor.CreatedOn	2012-12-12T13:29:49
Category	COBie.Floor.Category	Floor
ExtSystem	COBie.Floor.ExtSystem	Authoring Application
ExtObject	COBie.Floor.ExtObject	IfcBuildingStorey
ExtIdentifier	COBie.Floor.ExtIdentifier	0NG5d_R6T8leptpGyG4uky

4.5. Space

The space data needs to meet the Archibus data requirements defined in a separate document available from the Estate and Space Management Unit.

The Archibus requirements define where the parameters should exist in the Revit model. The parameters should be entered in the correct property sets and then mapped to populate the COBie fields.

COBie Field Name	COBie Parameter	Example
Name	COBie.Space.Name	Room Number
CreatedBy	COBie.Space.CreatedBy	name@email.com
CreatedOn	COBie.Space.CreatedOn	2012-12-12T13:29:49
Category	COBie.Space.Category	Uniclass 2015 Spaces Table

COBie Field Name	COBie Parameter	Example
FloorName	COBie.Space.FloorName	Mapped from Floor.Name
Description	COBie.Space.Description	Room Name
ExtSystem	COBie.Space.ExtSystem	Authoring Application
ExtObject	COBie.Space.ExtObject	IfcSpace
ExtIdentifier	COBie.Space.ExtIdentifier	3PbU3I0k5FVO3gc98VQGZm
RoomTag	COBie.Space.RoomTag	Archibus Room Number
UsableHeight	COBie.Space.UsableHeight	Room Height
NetArea	COBie.Space.NetArea	Room Area
OccupancyNumber	COBie.Space.OccupancyNumber	Room Capacity
RoomLength	COBie.Space.RoomLength	RoomLength
RoomWidth	COBie.Space.RoomWidth	RoomWidth
RoomDesignCapacity (No. of people)	COBie.Space.RoomDesignCapacity	RoomDesignCapacity (No. of people)
SyllabusPlus	COBie.Space.SyllabusPlus	SyllabusPlus
RoomCategory	COBie.Space.RoomCategory	RoomCategory
RoomType	COBie.Space.RoomType	RoomType
SchoolName	COBie.Space.SchoolName	SchoolName
Discipline	COBie.Space.Discipline	Discipline

4.6. Zone

Zone data does not map directly to OEAM but should be delivered as follows to meet the COBie schema requirements.

COBie Field Name	COBie Parameter	Example
Name	COBie.Zone.Name	Lighting Zone 1
CreatedBy	COBie.Zone.CreatedBy	name@email.com
CreatedOn	COBie.Zone.CreatedOn	2012-12-12T13:29:49
Category	COBie.Zone.Category	Lighting Zone, Fire Alarm Zone, Ventilation Zone, Circulation Zone, Public or Private Access Zone (5.2.2)
SpaceNames	COBie.Zone.SpaceNames	Referenced from Space data
ExtSystem	COBie.Zone.ExtSystem	Authoring Application
ExtObject	COBie.Zone.ExtObject	IfcZone
ExtIdentifier	COBie.Zone.ExtIdentifier	3PbU3l0k5FVO3gc98VQGZn

4.7. Type

The following Type data is required to meet OEAM requirements. Orange fields map directly to the OEAM fields.

COBie Field Name	COBie Parameter	Example
Name	COBie.Type.Name	(E) Asset description
CreatedBy	COBie.Type.CreatedBy	name@email.com
CreatedOn	COBie.Type.CreatedOn	2012-12-12T13:29:49
Category	COBie.Type.Category	Uniclass 2015 Product Table

COBie Field Name	COBie Parameter	Example
Description	COBie.Type.Description	Description of the Type i.e. Hand drier
AssetType	COBie.Type.AssetType	Fixed or Movable
Manufacturer	COBie.Type.Manufacturer	(F) Manufacturer
ModelNumber	COBie.Type.ModelNumber	(G) Model
WarrantyGuarantorParts	COBie.Type.WarrantyGuarantorParts	company@email.com
WarrantyDurationParts	COBie.Type.WarrantyDurationParts	5
WarrantyGuarantorLabor	COBie.Type.WarrantyGuarantorLabor	company@email.com
WarrantyDurationLabor	COBie.Type.WarrantyDurationLabor	5
WarrantyDurationUnit	COBie.Type.WarrantyDurationUnit	Month/Year or N/A
ExtSystem	COBie.Type.ExtSystem	Authoring Application
ExtObject	COBie.Type.ExtObject	IfcFurnitureType
ExtIdentifier	COBie.Type.ExtIdentifier	1ITs7iOoDD\$830Kgut03mv
ReplacementCost	COBie.Type.ReplacementCost	(S) Replacement cost
ExpectedLife	COBie.Type.ExpectedLife	15
DurationUnit	COBie.Type.DurationUnit	Year
NominalLength	COBie.Type.NominalLength	Length of Type
NominalWidth	COBie.Type.NominalWidth	Width of Type
NominalHeight	COBie.Type.NominalHeight	Height of Type
WarrantyExpiryDate	COBie.Type.WarrantyExpiryDate	(N) Warranty expiry date
AssetGroupCode	COBie.Type.AssetGroupCode	(L) Asset group code

4.8. Component

The following Component data is required to meet OEAM requirements. Orange fields map directly to the OEAM fields.

COBie Field Name	COBie Parameter	Example
Name	COBie.Component.Name	CH2_AirHandlingUnit:3544260
CreatedBy	COBie.Component.CreatedBy	name@email.com
CreatedOn	COBie.Component.CreatedOn	2012-12-12T13:29:49
TypeName	COBie.Component.TypeName	Mapped from TypeName (E) Asset Description
Space	COBie.Component.Space	(C) Location
Description	COBie.Component.Description	Air Handling Unit
ExtSystem	COBie.Component.ExtSystem	Authoring Application
ExtObject	COBie.Component.ExtObject	IfcFurnishingElement
ExtIdentifier	COBie.Component.ExtIdentifier	0ITs7iOoDD\$830Kgut03mv
SerialNumber	COBie.Component.SerialNumber	(H) Serial No
WarrantyStartDate	COBie.Component.WarrantyStartDate	(O) Effective from
AssetIdentifier	COBie.Component.AssetIdentifier	(M) Asset no
AssetCategory	COBie.Component.AssetCategory	(D) Asset Category
DateOfCommission	COBie.Component.DateOfCommission	(P) Date of commission/test
NextTest	COBie.Component.NextTest	(Q) Next date due for statutory test

4.9. System

System data does not map directly to OEAM but should be delivered as follows to meet the COBie schema requirements.

COBie Field Name	COBie Parameter	Example
Name	COBie.System.Name	Air Conditioning 1
CreatedBy	COBie.System.CreatedBy	name@email.com
CreatedOn	COBie.System.CreatedOn	2012-12-12T13:29:49
Category	COBie.System.Category	Uniclass 2015 Systems Table
ComponentNames	COBie.System.ComponentNames	CH2_AirHandlingUnit
ExtSystem	COBie.System.ExtSystem	Authoring Application
ExtObject	COBie.System.ExtObject	IfcZone
ExtIdentifier	COBie.System.ExtIdentifier	3PbU3I0k5FVO3gc98VQGZn

5. Quality Assurance

The supplier shall quality assure the data prior to delivery.

The appointed Information Manager will also check the data and University of Manchester will perform their own spot checks.

Any issues identified must be resolved by the supplier prior to end of stage sign off.