Integriti Controller Memory and Database Configuration

The table in this document provides details of the Integriti Controller database entities, their ID, Controller on-board memory limits and global entity status.

Entity ID.

Most database entities have a 1 to 3 character ID that is used to quickly identify the type of entity.
This is particularly useful when choosing an entity in a programming option where different types of entities may be selected, and when performing operations from an LCD Terminal.

Maximum number of records.

This is the absolute maximum number of each entity that can be stored in the Controller's <u>on-board</u> memory with the highest level smart card licence installed.

The number of Zone Inputs, Doors, Users and Review Events is <u>further limited</u> by the Smart Card Level Licence installed in the Controller. The number of Zone Inputs allowed will affect the numbers of expansion modules that can be utilized.
See the current Product Catalogue and Datasheets or Controller Installation Manual for details of Smart Card Levels.

<u>The number of Users can be expanded</u> beyond the limit specified in the table by utilizing the 'AURM' feature in conjunction with the Integriti Pro software, or the 'Level 5 User Expansion Kit' feature which provides a local expanded user database.
Refer to current Product Catalogues and Datasheets for details.

When the numbers of entities such as Areas, Doors, Lift Cars, Zone Inputs, Lockers, etc. is greater than that allowed by a single Controller, then one or more additional Controllers will be required. Integriti Pro software provides seamless integration so that multiple Controllers can operate as a single system.

Global Entities.

As shown in the table below, many entities in the Integriti platform are 'global entities'.
When an Integriti system has only one Controller, the global entities do not require any special consideration.
When an Integriti system requires more than one Controller, the global entities are common across all the Controllers that are enrolled in that system. This means that the Integriti Pro Software will, depending on the type of global entity, either:

- Maintain an exact copy of the entity in every Controller within a system. e.g. Menu Groups, Process Groups, Door Types, Time Periods, Holidays, Card Formats & Templates, Calibrations, etc. (Users and Permission Groups may be included in this option if they <u>do not</u> have permissions for individual entities assigned)
- Or; Create a copy of the entity in each Controller in which any permissions for individual entities will be limited to just those entities relevant to that Controller. e.g. Lists (Area/Door/Lift Car/Floor/Auxiliary), and possibly Users and Permission Groups if they have permissions for individual entities assigned.

e.g. If adding a User in the Integriti Pro software, the user record is created once. Data such as name, PIN, credentials, user options, groups and lists assigned, etc. are stored in every Controller, while permissions for any individual entities will only be stored in the relevant Controller/s.
See the 'Integriti System Configuration Handbook' Chapter 10.2 "Enrolling Controllers" for details of the Data Synchronisation (Data Sync Mode) options.

Note that for global entities, the 'Maximum' records value shown in the table will be the maximum number of records for the whole system as well as for each individual Controller.

In these systems it is recommended that all programming is performed in the Integriti Pro software and not from a Terminal or Integriti CS software. If incorporating an existing Controller into a multi-controller site, careful planning should be undertaken to ensure that any global entities in that Controller that are required to be retained, are not overwritten by the software.

Entity description	ID	Maximum	Global Entity
Actions lists	CL	250	
Air conditioners	AC	4	
Analogue Calibrations	IA	250	Yes
Apartments	AP	250	
Area list	AL	10,000	Yes
Areas	A	250	
Automation Point (BMS formats)	AU	128	
Auxiliary List. V17.0.4 or later: Prior to V17.0.4:	XL	1000 250	Yes
Cards		Stored in User record	
Card Formats	CF	128	Yes
Card Templates	TM	250	Yes
Communications tasks	CT	10	
Comparisons (Compare entities)	CP	250	
Compound entity	CE	250	
Domain Name Server names (DNS names)	DS	32	Yes
Door Lists	DL	10,000	Yes
Door types	DT	250	Yes
Doors	D	250	
End of Line configurations	EL	8	Yes
Floor Lists	FL	10,000	Yes
Floors	LF	250	
Foreign Entities	FE	250	Yes
General Timers	GT	250	
General Variables	GV	250	
Holidays	HY	250	Yes
Interlocks (Door interlocks)	IL	1000	
LAN Modules. -Max. Modules on System LAN: -Max. Modules of any one type (See notes below):		250 99	
LCD message	LM	250	
Lift Groups	LG	128	
Lift car lists	LL	2000	Yes
Lift types	LT	250	Yes
Lifts (Lift Cars)	LC	250	
Lockers	LK	1000	
Locker Banks	LB	10	
Macro lines	MA	2000	
Menu groups	MG	1000	Yes
Named actions	PA	500	
Network interface card	NIC	24	
Offline access		250	
Process groups	PG	250	Yes
Permission Groups (Q-pair groups)	QG	25,000	Yes
Qualified door types	QD	250	Yes
Qualified lift types	QL	250	Yes
RF Remotes		Stored in User record	
RF remote templates	FT	250	
Schedules	SK	1000	Yes
Telephone number lists	TL	250	Yes
Telephone numbers	TN	1000	Yes
Time Periods	TP	1000	Yes

Entity description	ID	Maximum	Global Entity
Users. (See notes below)	U		Yes
Standard Controller Hardware:		100,000	
With Level 5 User Expansion:		1,000,000	
With AURM:		1,000,000+	
User Qualifications	UQ	281	
Zone Inputs	Z	3000	

NOTES

1) All LAN Modules compatible with Integriti belong to one of these 8 types; LCD Terminal (T), Graphic Terminal (G), Expander (E), Radio Expander (F), Reader (R), Intelligent Reader (I), LAN Power Supply (P) and Virtual Module (V).

2) The maximum number of User records is reduced if extended User data is assigned. i.e. If more than 1 Card and/or 8 Permissions and/or 8 User Qualifications are assigned to a User.

3) User database expansion is available via Integriti software (AURM) or local hardware (Level 5 User Expansion) options. These features allow numbers of Users far in excess of what the Controller can store on-board by dynamically updating the on-board database. *Refer to the Integriti Product Catalogue, Software Manual & Programming Reference Manual for details.*