

Re-engineering Australia.

Core Database Table Structures.

Table	Field Contents	Notes
BLU	BLU RID	System-generated unique record identifier
	BLU Name	(may be NULL)
	SE GPS Value	
	SW GPS Value	
	NE GPS Value	
	NW GPS Value	
	Area	(may be NULL)
Structure	BLU RID	Reference to parent BLU
	Structure RID	System-generated unique record identifier
	Type	e.g. River
	Name	e.g. Murrumbidgee
	Res. Proj. RID	(May be NULL)
	Access Status	'CORE', 'PUBLIC', 'PRIVATE', etc.
	Chain	BLU RID
Structure RID		Reference to parent structure. (May be NULL)
Chain RID		System-generated unique record identifier
Type		e.g. RHS River boundary
Res. Proj. RID		(May be NULL)
Access Status		'CORE', 'PUBLIC', 'PRIVATE', etc.
Data Point	BLU RID	Reference to parent BLU
	Structure RID	Reference to parent structure. (May be NULL)
	Chain RID	Reference to parent chain. (May be NULL)
	DP RID	System-generated unique record identifier
	Type	
	Name	
	Description	
	GPS Value	
	Sequence No.	Used only where Chain RID is not NULL.
	Altitude	May be negative (i.e. below sea level) or NULL
	Height/Depth	Value relative to altitude. (May be Null)
	Res. Proj. RID	(may be NULL)
	Access Status	'CORE', 'PUBLIC', 'PRIVATE', etc.
Users	User RID	
	User Name	
	User Type	Person, Society, Corporation, etc.
Projects	User RID	
	Res. Proj RID	
	User Status	'MANAGER', 'CONTRIBUTOR'
	Description	
	Access Status	'PUBLIC', 'PRIVATE', etc.

Notes.

- (1) For each table, the RID is a record identifier and consists of a system-generated number, unique within the table. Reference to other tables' RIDs indicates the existence of a parent/child relationship. In the BLU and Structure tables, its main function is to resolve possible conflicts in names. However, in the Chain and Data Points tables, RIDs have a more central role in that research and data collection supporting specific projects may need to be related to specific GPS locations within a BLU, such as a particular point in a river. Structures, chains and data points can be added (under appropriate supervision) by researchers and other outside entities (see also Note 3).
- (2) The SE corner of a BLU can be used as a unique spatial reference for convenience, provided that the geometry of all BLUs remains as specified.
- (3) DPs can exist in a BLU or a Structure without having any role in that entity other than to identify the locations of items of information, such as an altitudes or survey points. In such cases, the Chain RID and possibly the Structure RID may be set to NULL (i.e. no value). Depending upon the function of the DP, a type and description may also need to be provided.
- (4) The Sequence No. is used in chains to as a directional indicator (e.g. increasing values indicates a downhill or downstream movement).
- (5) Altitude and height/depth values are only required under particular circumstances.
- (6) A Research Project may be operated upon by multiple users. However, only one user can be nominated as the project manager. Alternatively, a number of separate projects could be set up, with a separate management project to oversee them all.