

EPSG v10 data model changes (2020-10-05): relational tables¹

For details listed by table, see [here](#). In summary:

a) The `epsg_area` table is removed and replaced by an `epsg_extent` table. The first seven fields will be renamed, with some reordering. The `area_polygon_file_ref` field is removed. Five new fields will be added. For all fields in the area table other than `area_polygon_file_ref` there is a 1:1 mapping from the area table to a field in the extent table. A new `epsg_areapolygon` table will be included in the repository but not in the Access database export.

b) In addition to the extent table, seven new tables are added:

<code>epsg_conventionalRS</code>	<code>epsg_definingOperation</code>
<code>epsg_datumEnsemble</code>	<code>epsg_scope</code>
<code>epsg_datumEnsembleMember</code>	<code>epsg_usage</code>
<code>epsg_datumRealizationMethod</code>	

`epsg_definingOperation` is a superset of the 19111:2019 `heightTransformation` association between vertical CRS and `coordinateOperation`, generalising it to apply to any single CRS that is defined by a coordinate transformation.

c) In the `epsg_coordinatereferencesystem`, `epsg_datum` and `epsg_coordinateoperation` tables, the `area_of_use_code` and `scope` fields will be deprecated. They will be changed from mandatory to optional and left unpopulated. These fields will be replaced by the new `epsg_usage` intersection table.

d) In the `epsg_coordinateAxis` table, the `uom_code` field is changed from mandatory to optional.

e) There is a change to one field name in the `epsg_coordinateReferenceSystem` table.

f) Additional fields are added at the end of the `epsg_datum` table.

g) There are changes to some field lengths in the following tables:

<code>epsg_coordinateAxisName</code>	<code>epsg_datum</code>
<code>epsg_coordinateSystem</code>	<code>epsg_ellipsoid</code>
<code>epsg_coordinateOperation</code>	<code>epsg_namingsystem</code>
<code>epsg_coordinateOperationMethod</code>	<code>epsg_primeMeridian</code>
<code>epsg_coordinateOperationParameter</code>	<code>epsg_unitOfMeasure</code>

h) There are no changes to the structure of the following tables:

<code>epsg_alias</code>	<code>epsg_coordinateOperationPath</code>
<code>epsg_change</code>	<code>epsg_deprecation</code>
<code>epsg_coordinateOperationParamUsage</code>	<code>epsg_supersession</code>
<code>epsg_coordinateOperationParamValue</code>	<code>epsg_versionHistory</code>

j) For the existing `epsg_alias`, `epsg_coordinateAxis`, `epsg_deprecation` and `epsg_supersession` tables and the new `epsg_usage` table, the data population of the `code` field may change as a result of Dataset releases.

¹ In this document Camel case is used to facilitate reading of table names. In implementation, in the SQL relational tables no upper case characters are used.