

Local government open data incentive scheme

Schema compliance – public toilets

The schema for public toilets data is described in detail at <http://schemas.opendata.esd.org.uk/PublicToilets>.

It defines the columns expected for data delivered in comma separated values (CSV) format.

Some of the rules of the schema are specified as a [JSON Table Schema](#) which can be used in conjunction with your CSV data to perform your own validation using the Open data Institute's CSV Lint tool at <http://csvlint.io>. Note that there are additional rules (such as ones applying to pairs of columns) that are not tested by CSV Lint.

1. File format

1.1 The CSV format

The [CSV Lint About page](#) describes the basic rules for good CSV.

- The first row is a header row that contains the names of some columns.
- The rest of the rows are data rows that contain a number of fields.
- Line endings use CRLF (Windows line endings) and the column names and fields are separated by commas.
- If a field contains a comma, a line ending or a double quote then the field is escaped by wrapping it in double quotes. Double quote marks will be doubled up in any field escaped in the manner described.

1.2 Multiple values within a field

Where a single row contains more than one value for a field, values should be separated by the pipe (|) character.

If you use a comma you will need to enclose the whole field within double quotes and to ensure that values themselves do not contain commas.

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2. Types of field

2.1 Boolean

True, Yes, False or No. These are not case sensitive.

2.2 Date

A date in the format dd/mm/yyyy. If time is included, this will be ignored.

2.3 Encoded list

Encoded lists are fixed sets of labels from which you select one or more values to populate a field.

For example, the 'Decision' field must be null or take one of the following values.

- Approve
- Refuse
- Split
- Withdrawn
- Prior not required
- Prior granted
- Prior refused
- Prior refused permission required

Capitalisation does not have to match, but any other variances from the encoded list specified will result in your data not being valid.

2.4 Number

A number, which may or may not have decimal places, except where stated otherwise. Note that zero is considered as a value that is distinguished from a null (or absent) value.

2.5 String

A single line of alphabetic and/or numeric characters.

2.6 Text

One or more lines of text. Multiple lines can be delimited by carriage return and line feed characters. If these characters are used, the entire field value must be enclosed in quotes.

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2.7 URI

Uniform resource identifier. URIs are always followed by a string field giving the label of the applicable URI.

URIs are machine readable codes that precisely identify things, like local authorities, wards, or types of service. URIs commonly used in UK local government can be looked up from this page: <http://uris.opendata.esd.org.uk>.

The schema for premises licences references URIs for the following values.

- Organisation – to whom the data belongs.
- ServiceType – the type of planning application.
- GeoArea – ward or natural neighbourhood.

Councils are asked to provide relevant URIs or text labels from which URIs can be derived.

If you specify a URI, you can use any local label you choose. If you *only* provide a label, we need to be able to convert that to a URI.

For example, the URI for the service type of 'Public toilets' is <http://id.esd.org.uk/service/579>.

To comply with the schema you need to define the ServiceTypeLabel as 'Public toilets' and can optionally give the URI as <http://id.esd.org.uk/service/579>.

If you give no URI and use a different label locally (such as 'Council public conveniences') you can continue to use that label in your data if you register it as corresponding with the official URI. To do this, [sign in](#) and add a mapping for your council from the [URIs page](#). Note that you can only use your local label for one URI within the applicable URI set.

The ESD team will add common alternative labels for anyone to use instead of official URI labels. [Ask them](#) if you are unsure of how to apply your own labels.

People consuming data are given a web method ([see here](#)) to allow labels to be converted to URIs so data from all councils uses a single set of references.

3. Cardinality

Cardinality gives the number of values that may be present in a field for one row. Cardinality will be

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one of the following.

- 0..1 – zero or one values.
- 0..∞ – any number of values.
- 0..8 – any number of values to a maximum of eight.
- 1 – one and only one value.
- 1..∞.- at least one value.

If the field allows zero values, a null value is accepted. Null is represented by an empty field and NOT by the string “null” or “N/A”. Any field with a cardinality of 0..1, 0..∞ or 0..8 is therefore optional and can be left blank.

4. Fields

The fields required by the ‘Public toilets’ schema are as given below. Many fields are optional, but included here so that they have the same name across all councils that want to use them.

Column number	Column name	Type	Cardinality	Notes
1	ExtractDate	Date	1	The date that the data was last extracted from its source database. Or manually updated.
2	OrganisationURI	URI	0..1	URI from ODC of publishing organisation.
3	OrganisationLabel	String	1	Label of the above URI.
4	ServiceTypeURI	URI	0..1	Service URI from http://id.esd.org.uk/list/services . For Public toilets, this must be http://id.esd.org.uk/service/579 .
5	ServiceTypeLabel	String	1	Label of the above URI.
6	LocationText	String	1	Name of building, street , park, etc.
7	CoordinateReferenceSystem	Encoded list	0..1	Values, if specified, can be: <ul style="list-style-type: none">• WGS84 (see http://en.wikipedia.org/wiki/WGS84) - version of latitude and longitude. This is the default considered to apply if no value is given; or• OSGB36 (see http://en.wikipedia.org/wiki/Ordnance_Survey_National_Grid) - version of northing and easting.
8	GeoX	Number	1	Longitude or east grid reference for centroid of application boundary. . See notes against GeoPointLicensingURL
9	GeoY	Number	1	Latitude or north grid reference for centroid of application boundary. . See notes against GeoPointLicensingURL
10	GeoPointLicensingURL	URL	0..1	URL of any page that describes any licensing restrictions on using the northing and easting and UPRN values. Where GeoX and GeoY field values are derived from Ordnance Survey maps, this field should use the URL http://www.ordnancesurvey.co.uk/business-and-government/help-and-

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				support/public-sector/guidance/derived-data-exemptions.html or the URL of another page that attributes the data to Ordnance Survey.
11	Category	Encoded list	0..1	<ul style="list-style-type: none"> Female Male Female and male Unisex Male urinal Children only None
12	AccessibleCategory	Encoded list	0..1	<ul style="list-style-type: none"> Female Male Female and male Unisex Male urinal Children only None
13	RADARKeyNeeded	Boolean	0..1	Is a RADAR key needed to access the accessible toilet?
14	BabyChange	Boolean	0..1	Are there baby change facilities?
15	FamilyToilet	Boolean	0..1	Is there a family toilet, which is a large cubicle with adult- and child-sized toilets and a changing table?
16	ChangingPlace	Boolean	0..1	Flag to indicate if the toilet includes changing facilities for people with profound and multiple learning disabilities and their carers, as well as many other disabled people. See http://www.changing-places.org .
17	AutomaticPublicConvenience	Boolean	0..1	Also known as a 'superloo'.
18	FullTimeStaffing	Boolean	0..1	Is there full-time staffing?
19	PartOfCommunityScheme	Boolean	0..1	Is the toilet part of a community scheme?
20	CommunitySchemeName	String	0..1	
21	ChargeAmount	Currency	0..1	Charge expressed as a number in GBP to two decimal places.
22	InfoURL	URL	0..1	URL of web page describing the facilities.
23	OpeningHours	Text	0..1	Opening hours. Syntax used by Open Street Map and described at http://wiki.openstreetmap.org/wiki/Key:opening_hours is recommended.
24	ManagedBy	String	0..1	Name of organisation managing the toilet.
25	ReportEmail	Email address	0..1	Email address for reporting problems.
26	ReportTel	String	0..1	Telephone number for reporting problems.
27	Notes	Text	0..1	Notes on reporting, accessibility, hours or anything else.
28	UPRN	String	0..1	Unique Property Reference Number of the toilet. The GeoPointLicensingURL should advise any conditions attached to use.
29	Postcode	String	0..1	
30	StreetAddress	Text	0..1	
31	GeoAreaURI	URI	0..∞	A predefined spatial area that the application is contained in. URIs for official geographies (e.g. wards) must come from http://statistics.data.gov.uk and for unofficial geographies from http://neighbourhoods.esd.org.uk .
32	GeoAreaLabel	String	0..∞	Label of the above URI.

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5. Row uniqueness

LocationText is expected to be unique within each Organisation. However it is normally expected that each dataset of toilets published for one or more organisations will entirely replace the previous dataset for those organisations. Hence data consumers can overwrite previous datasets rather than updating them by uniquely identifying rows.

6. Validations performed

Validations are performed in the technical review of submissions under the local open data incentive scheme.

Checks applied by the CSV Lint utility with the [JSON CSV schema](#) are:

- required fields are populated;
- maximum and minimum field lengths enforced;
- patterns match defined regular expressions (including URLs and email addresses);
- values from encoded lists are valid;
- URLs are correctly defined; and
- correct data types apply (e.g. dates in date field, numbers in numeric field).

In addition, ESD will automatically check:

- labels for URIs map to URIs (in general or via local text added by councils);
- URIs exist within appropriate URI sets and match labels specified;
- in comma separated lists of URIs all are of valid format;
- dates are in the specific format and valid;
- the GeoX field is populated where the GeoY field is populated and vice versa;
- CommunitySchemeName can only be populated if PartOfCommunityScheme is true; and
- LocationText is unique within each Organisation.

ESD will perform brief manual checks on the data content to check that values appear sensible.

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7. Sample data

A sample of compliant CSV data provided by Hampshire County Council is here:

<http://schemas.opendata.esd.org.uk/PublicToilets/example-public-toilets.csv>

8. Note for DataShare users

A DataShare definition file for planning application data is [provided here](#). DataShare users can create a new dataset definition by importing this definition file. The definition will automatically impose the following rules.

- Required fields are populated.
- Maximum and minimum values enforced.
- Correct stub used for URI fields.
- Correct data type (e.g. dates in date field, numbers in numeric field).

9. Data openness and licensing

UPRNs are subject to Public Sector Mapping Agreement licensing, as are Northings and Eastings if they are derived from Ordnance Survey maps. However, Ordnance Survey has granted an exemption from OS licensing restrictions for Public Toilets under the streamlined derived data exemption which means that the data can be published on terms equivalent to OS OpenData under Open Government Licence with attribution to Ordnance Survey copyright. "Contains Ordnance Survey data © Crown Copyright and database right [year]".

Further information about PSMA licensing is available on

<http://www.ordnancesurvey.co.uk/business-and-government/help-and-support/public-sector/guidance/derived-data-exemptions.html>

10. Getting more help

Our [help page](#) gives answers to common questions. The Knowledge Hub's [Local Open Data Community](#) includes a [forum](#) where the scheme is discussed. You need to register separately to participate in discussion. If your email address does not belong to a public sector organisation, email knowledgehub@capacitygrid.com to request access.

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If the above don't address your query, email us at support@esd.org.uk.

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