

Data Transfer Format 7.1 for the National Street Gazetteer (NSG)

DTF 7.1

Version 1.5
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1 Introduction

This document details a new Data Transfer Format specification for operation with the National Street Gazetteer (NSG) hub following the publication of BS7666:2006.

This version of the data transfer format for Local Street Gazetteers will be known as DTF7.1, for further details of the DTF7 family and their proposed development timetable see Section 12 The DTF Family and Implementation timetable.

The initial draft for comment of this document was prepared by Intelligent Addressing Ltd as NSG concessionaire. Initial consultation of the document was undertaken at a meeting on 13th September 2007 with all known BS7666 LSG software vendors and other NSG stakeholders. Further consultation with other organisations and local government representatives, including the NSG Technical Working Group, took place from January 2007 to October 2008.

Implementation of DTF 7.1 on the NSG hub is expected to start beta testing during the first quarter of 2009 with full support for the provision of NSG hub services provided by April 2009 to facilitate the phased updating of LSG and ASD systems and data in accordance with the DEC-NSG – Data Entry Conventions and Best Practice for the NSG from April to June 2009, see Section 12.4 Implementation Timetable.

It is recommended thereafter that this document is reviewed annually to keep pace with changes in legislation, practice and technology and re-issued with corrections / amendments from time to time. If you have any queries or suggestions for improvement to this document please send an email to queries@thensg.org.uk. This information will be collated and presented to the Regional Chairs Group Meetings on a regular basis.

1.1 Definitions

- 1.1.1 The key words "must", "must not", "required", "shall", "shall not", "should", "should not", "recommended", "may", and "optional" used in this document are to be interpreted as follows:
- 1.1.2 The word "must" or the terms "required" or "shall", mean that the definition is an absolute requirement of the specification.
- 1.1.3 The phrase "must not" or "shall not" mean that the definition is an absolute prohibition of the specification.
- 1.1.4 The word "should" or the adjective "recommended" mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
- 1.1.5 The phrase "should not" or "not recommended" mean that there may exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful. The full implications should be understood and the case carefully weighed before choosing to go against the recommendation.
- 1.1.6 The word "may" or the adjective "optional" mean that an item is truly optional.

2 About the National Street Gazetteer

2.1 Background

The NSG provides the nationally definitive dataset for street references (USRN's) linked to the names and extents of streets associated with them in England and Wales. The Additional Street Data (ASD) is not a nationally definitive dataset rather it is an abstract of data collated from other sources. Many of these sources are legally definitive (e.g. TROs, PROW definitive maps, s36 HA List of Streets) and the ASD designations should not be considered to be a legal substitute for them.

Integrity between Local and National gazetteers is maintained by the use of full update files. The NSG implementation of BS 7666:2006 also includes a number of supplementary items to support the service delivery requirements and use of street data within central and local government.

2.2 The Mapping Services Agreement

Under the New Roads and Street Works Act legislation, the current and future versions of the Mapping Services Agreement (MSA) all Local Highway Authorities (LHAs) in England and Wales are responsible for creating and maintaining a LSG and ASD which is maintained by the LSG Custodian who is required to submit an extract to the NSG Concessionnaire (service provider) on a monthly basis under the auspices of the NSG Custodian (who is employed by the service provider as the NSG Concessionnaire. ASD based upon the streets in the NSG is also required to be maintained and submitted by Highway Authorities to the NSG Concessionnaire. Currently the extract is a full replacement; however, a move to change only updates (COU) will be considered within future revisions of the New Roads and Street Works Act legislation.

2.3 Governance

The maintenance and update regime of the National Street Gazetteer is detailed in Department for Transport (DfT) legislation; namely the New Roads and Street Works Act Code of Practice for the Coordination of Street Works and Works for Road Purposes together with the Technical Specification for EToN (Electronic Transfer of Notices).

This document defines the LSG and ASD upload format governed by the Mapping Services Agreement (MSA) for Local Government. This specification is cross-referenced by the EToN Technical Specification and the DEC-NSG – Data Entry Conventions and Best Practice for the NSG. The NSG download format for Street Works purposes is currently defined in the EToN Technical Specification, and is expected to be brought back in line with this specification by April 2010.

It is a statutory requirement for the NSG Concessionnaire to receive, validate and publish the Operational District Data Files (OD Files) detailed in the aforementioned documents. Details of these files are not included in this specification. OD and metadata files must however be submitted to the NSG hub with each full submission of LSG and ASD data.

3 Data Format

In each of the records all data items (fields) listed in this specification will be included in the order that they occur in the relevant record definition. Each field shall be separated from the previous one by a comma.

3.1 Data Types

All fields in each of the records are defined using one of the following data types:

3.1.1 Data Types		
Data Type	Format	Comments
Date	BS ISO 8601	All dates shall be recorded consistently in the extended format CCYY-MM-DD
Time	HH:MM	The 24 hour clock format is used where HH=hour, MM=minute
Number (N)	May contain any positive numeric value	Fields do not need leading zero(s) and they will be ignored if present. Fields must not have thousands separators.
Text (T)	All text fields will be enclosed in double quotes (“ ”)	The double quotes will be ignored as part of the text.

All fields specified as mandatory (Man) must contain data. For other fields the inclusion of data is either Optional (Opt) or Conditional (Con).

Where a field has no value in a record, two commas must be placed together in the record (one for the end of the previous field and one for the end of the null field). Where the null field is a text field double quotes should be included between the two commas, e.g. ,”” ,

3.2 Transfer File Format

LSG and ASD data will be transferred using a Unicode character set (UTF - 8), including the Welsh characters as defined in ISO 8991 – 14, as a Comma Separated Value (CSV) transfer set. Each data transfer file must be a single file, the data transfer file must not be split into multiple files using volume numbers. LSG submissions are full submissions, containing the latest versions of records for streets and ESU's. Transfer of data using a change only update mechanism is not specified within this document.

The street transfer file contains a number of different record types, one for each of the different LSG/NSG records. These records are described in detail in this document.

The ASD transfer file contains a number of different record types, one for each of the different types of ASD. The first field of each record in each file (the record identifier) determines the content and format of the remainder of the physical record.

There must only be one record per line in each file. No comma should be placed at the end of each row in the file.

3.3 Record order

All files must contain HEADER and TRAILER records as the first and last records in the file. The order of all other records within each file is unimportant for full LSG data files.

Processing order is included on some record types for compatibility purposes. It should not be validated on import or export but should contain a unique number for each record in each file. It is suggested that the records should be numbered sequentially from the first record in the file to the last record (not including header and trailer records).

3.4 Required records

The Header and Trailer records are compulsory for all transfer sets. The table below indicates the mandatory and optional record types that are to be submitted to the NSG with all full LSG supplies.

3.4.1 Record types			
Record Type	Record Description	Full LSG file	Transfer file name
10	Header	Mandatory	All files ¹
11	Street Record	Mandatory	xxxx_LG.csv
12	Street Cross Reference	Mandatory	xxxx_LG.csv
13	Elementary Street Unit	Mandatory	xxxx_LG.csv
14	ESU Co-ordinate	Mandatory	xxxx_LG.csv
15	Street Descriptor	Mandatory	xxxx_LG.csv
61	Additional Street Data	Mandatory	xxxx_AD.csv
62	Street Reinstatement	Mandatory	xxxx_AD.csv
63	Street Special Designation	Conditional	xxxx_AD.csv
64	Street Height Weight and Width Restrictions	Conditional	xxxx_AD.csv
65	One Way Street Exemptions	Conditional	xxxx_AD.csv
99	Trailer	Mandatory	All files ²

xxxx is used to represent the Street Works Authority Code (SWA Code) of the submitting authority. When DTF7.1 files are submitted to the NSG hub xxxx should be replaced with the SWA Code of the submitting authority.

Each submission must include a completed metadata form in Word format, named xxxx_MD.doc and an Operational District Data file named xxxx_OD.xml.

¹ All files must contain Header records.

² All files must contain Trailer records.

An example of the metadata form is contained in Annexe H of the DEC-NSG – Data Entry Conventions and Best Practice for the NSG. However an editable version of the form is available to download from the NSG website at www.thensg.org.uk for completion and submission.

An Operational District Data File must be transmitted with each submission to the hub in accordance with the published documentation for EToN. This specification and example files can be downloaded from the pages of www.dft.gov.uk and www.govtalk.gov.uk.

4 Header and Trailer Records

4.1 Header Record (Type 10)				
Field	Description	Type / Max Length	Value range	Status
RECORD_IDENTIFIER	Identifies the record as a HEADER record.	N 2	10	Man
SWA_ORG_NAME_TEXT	Name of the organisation providing the data.	T 40		Man
SWA_ORG_REF	A code to identify the user organisation.	N 4		Man
PROCESS_DATE	Date when the transfer set was created.	Date	1990-01-01 to present date	Man
VOLUME_NUMBER	Must always be set to 1.	N 2	1	Man
ENTRY_DATE	Most recent record update date contained in this file (excluding the header and trailer record).	Date		Man
PROCESS_TIME	Time when the transfer set was created, format HHMMSS.	N 6	000000-235959	Man
DTF_VERSION	Version number of the DTF specification used.	N 2.1	7.1	Man
FILE_TYPE	Type of file transfer. Always set to F for Full.	T 1	F	Man

Record Example

10,"HALTON BOROUGH COUNCIL",0650,2008-06-26,1,2008-06-26,162500,7.1,F

4.2 Trailer Record (Type 99)				
Field	Description	Type / Max Length	Value range	Status
RECORD_IDENTIFIER	Identifies this record as a trailer record.	N 2	99	Man
NEXT_VOLUME_NUMBER	Always set to zero (0) to indicate the last volume.	N 2	0	Man
RECORD_COUNT	Count of the number of records in the volume (excluding the header and trailer records).	N 12		Man
ENTRY_DATE	Most recent record update date contained in this file (excluding the header and trailer record).	Date		Man
PROCESS_TIME	Time when the transfer set was created, format HHMMSS.	N 6	000000-235959	Man

Record Example

99,0,239223,2006-07-04,162500

5 Street File

5.1 Street Record (Type 11)					
Field	Description	Type / Max Length	Value range	Status	
RECORD_IDENTIFIER	Identifies this record as a street record.	N 2	11	Man	
CHANGE_TYPE	Change identifier. Always set to I for Insert.	T 1	I	Man	
PRO_ORDER	Unique numerical value representing the order in which the records in the transfer file should be processed. Note that it is not necessary to refer to this field when importing a full update.	N 16		Man	
USRN	Unique Street Reference Number.	N 8		Man	
RECORD_TYPE	Street type	N 1	Table 5.2.1	Man	
SWA_ORG_REF_NAMING	The DfT code of the Street Naming Authority, or the Highway Authority if a numbered street.	N 4		Man	
STATE	A code identifying the current state of the street.	N 1	Table 5.2.2	Opt	
STATE_DATE	Date at which the street achieved its current state in the real-world.	Date	Present day or earlier	Con ³	
STREET_SURFACE	A Code to indicate the surface finish of the street.	N 1	Table 5.2.3	Opt	
STREET_CLASSIFICATION	A code for the primary street classification.	N 1	Table 5.2.4	Opt	
STREET_VERSION_NUMBER	Version number of the Street record. Always set to one.	N 1	1	Man	
RECORD_ENTRY_DATE	The date that the record was entered into the LSG.	Date	1990-01-01 to Present day	Man	
LAST_UPDATE_DATE	The date on which any attribute of the record was	Date	Greater than or equal to the	Man	

³ Required if state is not null.

5.1 Street Record (Type 11)				
Field	Description	Type / Max Length	Value range	Status
	changed.		Record_Entry_Date and less than or equal to Present day	
STREET_START_DATE	The date on which the street started to exist or is planned to start in the real world.	Date		Man
STREET_END_DATE	The date on which the street ceased to exist in the real world (i.e. the date that the Street Record was permanently stopped up or no longer exists in the 'real world' and state code set to 4).	Date	Greater than or equal to street_start_date and less than or equal to present day	Con ⁴
STREET_START_X	The X (easting) co-ordinate of the start point of the street.	N 7.2	80000.00-656100.00	Man
STREET_START_Y	The Y (northing) co-ordinate of the start point of the street.	N 7.2	5000.00-657700.00	Man
STREET_END_X	The X (easting) co-ordinate of the end point of the street.	N 7.2	80000.00-656100.00	Man
STREET_END_Y	The Y (northing) co-ordinate of the end point of the street.	N 7.2	5000.00-657700.00	Man
STREET_TOLERANCE	The tolerance of the start and end co-ordinates (in metres).	N 3	0-999	Man

Record Example

11, 'I',1,47900007,1,650,2,2008-04-01,1,8,1,2008-01-10,2008-06-01,2008-04-01,,194325.00,372449.11,164812.12,375070.89,5

Notes

1. Where a street has been permanently stopped up or no longer exists in the 'real world' the STATE should be set to 4 with an appropriate STATE_DATE entered.
2. There is to be no default code value (e.g. unknown) for the Street surface code or Street classification code. The correct value will have to be determined and allocated on the upgrade

⁴ Required if state is not null.

⁴ Required if street record is to be closed.

- from NSG CSV to DTF7.1. The primary classification for the street should be entered as it is acknowledged that the state may change along the length of a street.
3. State Code 1 should only be used for planned streets during the planning process, or streets currently under construction.
 4. Where more than one Classification is applicable to a street the first applicable classification should be selected in the following order: 8, 9, 10, 6, 4.
 5. Only the most recent version of a USRN must be supplied.

5.2 Street Code Types

5.2.1 Street Types	
Type	Definition
1	Designated Street Name
2	Officially Described Street
3	Numbered Street
4	Unofficial Street name

5.2.2 Street State Codes	
Code	STATE
1	Under construction
2	Open
4	Permanently closed

5.2.3 Street Surface Codes	
Code	STREET_SURFACE
1	Metalled
2	Unmetalled
3	Mixed

5.2.4 Street Classification Codes	
Code	STREET_CLASSIFICATION
4	Pedestrian way or footpath
6	Cycle Track or Cycle Way
8	All Vehicles
9	Restricted byway
10	Bridleway

6 Cross Reference Record Structure

6.1 Street XREF Record (XREF) (Type 12)				
Field	Description	Type / Max Length	Value Range	Status
RECORD_IDENTIFIER	Identifies this record as STREET_XREF record.	N 2	12	Man
CHANGE_TYPE	Change identifier. Always set to I for Insert.	T 1	I	Man
PRO_ORDER	Unique numerical value representing the order in which the records in the transfer file should be processed. Note that it is not necessary to refer to this field when importing a full update.	N 16		Man
XREF_TYPE	Indicator as to the type of record that is cross-referenced. 1 indicates a cross reference to a street, 2 indicates a cross reference to an ESU.	N 1	1 or 2	Man
USRN	Unique street reference number.	N 8		Man
USRN_VERSION_NUMBER	Version number of the parent Street record. Always set to one.	N 1	1	Man
XREF_ID	USRN of the cross referenced street (XREF_TYPE=1) or ESUID of the cross referenced ESU (XREF_TYPE=2).	N 14		Man
XREF_VERSION_NUMBER	A sequential number indicating the version number of the street XREF record. Always set to one.	N 1	1	Man

Record Example

12, 'I',2,2,47900007,1,3334560344444,1

Notes

1. Each Street record may have one or more dependent (i.e. child) Street XREF records which are referenced using the USRN.

2. Each Street XREF record cross references either a Street record (different to the parent Street record) or an Elementary Street Unit record.
3. Each cross referenced record must be present in the same transfer file set.
4. ESU's must not be cross referenced to more than one Type 1 or Type 2 Street.
5. Type 1 or 2 streets must not be cross referenced to another type 1 or 2 street where the XREF type = 1.

6.2 Elementary Street Unit Record (ESU) (Type 13)				
Field	Description	Type / Max Length	Value range	Status
RECORD_IDENTIFIER	Identifies this record as an ESU record.	N 2	13	Man
CHANGE_TYPE	Change identifier. Always set to I for Insert.	T 1	I	Man
PRO_ORDER	Unique numerical value representing the order in which the records in the transfer file should be processed. Note that it is not necessary to refer to this field when importing a full update.	N 16		Man
ESUID	Mid-point British National Grid Coordinate of the ESU. A unique identifier for the ESU.	N 14		Man
ESU_VERSION_NUMBER	A sequential number indicating the version of the record. Always set to one.	N 1	1	Man
ESU_LAST_UPDATE_DATE	The date on which any attribute of the ESU record was changed.	Date	Greater than or equal to the ESU_Entry_Date and less than or equal to present day	Man
ESU_END_DATE	The date at which the ESU ceased to exist in the real world or the date that the Elementary Street Unit Record was closed.	Date	Greater than or equal to ESU_start_date and less than or equal to present day	Con ⁵
NUM_COORD	The total number of	N 5	2-99999	Man

⁵ Required if ESU record is closed.

6.2 Elementary Street Unit Record (ESU) (Type 13)				
Field	Description	Type / Max Length	Value range	Status
	coordinates that define the street's geometry. This number includes the start and end coordinate held in the ESU record and any additional ESU_COORDS records. Also know as the number of shaping vertices.			
ESU_START_X	The X (easting) co-ordinate of the start point of the ESU. Co-ordinates are defined in metres.	N 7.2	80000.00-656100.00	Man
ESU_START_Y	The Y (northing) co-ordinate of the start point of the ESU. Co-ordinates are defined in metres.	N 7.2	5000.00-657700.00	Man
ESU_END_X	The X (easting) co-ordinate of the end point of the ESU. Co-ordinates are defined in metres.	N 7.2	80000.00-656100.00	Man
ESU_END_Y	The Y (northing) co-ordinate of the end point of the ESU. Co-ordinates are defined in metres.	N 7.2	5000.00-657700.00	Man
ESU_TOLERANCE	The tolerance of the start and end co-ordinates. Tolerance is defined in metres.	N 3	0-999	Man
ESU_ENTRY_DATE	The date on which the record was entered or a new instance created.	Date	1990-01-01 to present date	Man
ESU_START_DATE	The date the which the section of the street represented by the ESU was created in the real world or planned to start.	Date		Man
ESU_DIRECTION	Indicates whether traffic flow is restricted in a particular direction.	N 1	Table 6.2.1	Opt

Record Example

13,1,3,3334560344444,1,2004-04-01,2004-04-01,5,371935.12,164765.67,371903.12,164833.45,5,2004-04-04,2004-04-04,1

Notes

1. ESU IDs must be initially constructed by combining the easting and northing at the mid-point of the ESU and zero filling these to 7 characters. Note that the zero filling of the Easting may disappear when the ID is converted to a numeric value, e.g. an ESU with a centre of 81237, 657700 would have a ESU ID of 00812370657700. However the transfer file would contain the value 812370657700.
2. ESU IDs may in some circumstances be duplicated in other LSGs. When compiling more than one LSG into a user defined combined database the ESU ID must be considered with the SWA_ORG_REF_NAMING code (LAID) of the street naming and numbering authority to ensure a nationally unique and persistent identifier is used in that user defined combined database.
3. Each Elementary Street Unit record is a dependent (i.e. child) of a Street XREF record and is cross referenced using the ESUID.
4. Where an ESU has been closed, it is not necessary to delete all ESU coordinates from the transfer file.
5. Only the most recent version of an ESU must be supplied.

6.2.1 ESU Direction Codes	
Code	Direction Code
1	Two Way
2	One way in direction from Start to End coordinate.
3	One way in direction from End to Start coordinate.

6.3 Elementary Street Unit Coordinates Record (ESU) (Type 14)				
Field	Description	Type / Max Length	Value range	Status
RECORD_IDENTIFIER	Identifies this record as an ESU_COORDS record.	N 2	14	Man
CHANGE_TYPE	Change identifier. Always set to I for Insert.	T 1	I	Man
PRO_ORDER	Unique numerical value representing the order in which the records in the transfer file should be processed. Note that it is not necessary to refer to this field when importing a full update.	N 16		Man
ESUID	Mid-point British National Grid Coordinate of the ESU. The unique identifier for the ESU.	N 14		Man
ESU_VERSION_NUMBER	A sequential number indicating the version of the record.	N 1	1	Man
COORD_NUMBER	Sequential counter of the co-ordinates for an ESU. Range starts at 2 and must be less than the value of NUM_COORD on the corresponding parent Elementary Street Unit record. Indicator as to the order of the co-ordinates for an ESU.	N 5	2-99999	Man
ESU_X_COORD	The X (eastings) co-ordinate of an intermediate point on the ESU. Co-ordinates are defined in metres.	N 7.2	80000.00-656100.00	Man
ESU_Y_COORD	The Y (northings) co-ordinate of an intermediate point on the ESU. Co-ordinates are defined in metres.	N 7.2	5000.00-657700.00	Man

Record Example

14,I,4,334560344444,1,2,371939.55,164768.65

Notes

1. Each ESU Coordinate record is a dependent, (i.e. child), of an Elementary Street Unit record and is cross referenced using the ESUID.
2. All cross referenced Elementary Street Unit records must be present in the same transfer file set.

6.4 Street Descriptor Record (Type 15)				
Field	Description	Type / Max Length	Value range	Status
RECORD_IDENTIFIER	Identifies this record as a street descriptor record.	N 2	15	Man
CHANGE_TYPE	Change identifier. Always set to I for insert.	T 1	I	Man
PRO_ORDER	Unique numerical value representing the order in which the records in the transfer file should be processed. Note that it is not necessary to refer to this field when importing a full update.	N 16		Man
USRN	Unique Street Reference Number.	N 8		Man
STREET_DESCRIPTOR	Name, description or street number.	T 100		Man
LOCALITY_NAME	Locality name.	T 35		Con ⁶
TOWN_NAME	Administrative Town Name.	T 30		Con ⁷
ADMINISTRATIVE_AREA	Highway Authority name.	T 30		Man
LANGUAGE	A code identifying the language in use for the descriptive identifier.	T 3	Table 6.4.1	Man

Record Example

15,'1',7,4790011,"GREAT CHARLES CLOSE",",", "ST STEPHEN", "CORNWALL", "ENG"

Notes

1. Each Street Descriptor record is a dependent (or child) of a Street record and is cross referenced using the USRN.
2. All cross referenced Street records must be present in the same transfer file set.
3. Welsh authorities must submit two Street Descriptor records per Street record; one for the Welsh language (LANGUAGE=CYM) and one for the English language (LANGUAGE=ENG).

⁶ Required where street and town combination are not unique in LSG.

⁷ Mandatory for type 1 and 2 streets. Optional for Type 3 and 4 streets. Town name must be present when locality is present.

4. English authorities must only submit one Street Descriptor record per Street record; this must be for the English language only (LANGUAGE=ENG).
5. If a type 15 record relating to a street changes or if additions are made then the update date in the corresponding type 11 records should reflect the date of the change.

6.4.1 Language Code	
Language code	Description
ENG	Identifies the street descriptor record as the English version.
CYM	Identifies the street descriptor record as the Welsh version.

7 Additional Street Data

7.1 Additional Street Data Record - (Interest Records) (Type 61)				
Field	Description	Type / Max Length	Value Range	Status
RECORD_IDENTIFIER	Identifies this record as ADDITIONAL_STREET record.	N 2	61	Man
USRN	Unique street reference number.	N 8		Man
ADDITIONAL_STREET_SEQUENCE_NUM	Sequential number for each street for each additional street information record.	N 3		Man
SWA_ORG_REF_AUTHORITY	A code for the authority having an interest in the street.	N 4		Man
WHOLE_ROAD	Indicator as to whether the additional street information applies to the whole road. 0 indicates that it does not apply to the whole road.	N 1	0,1	Man
ADDITIONAL_STREET_LOCATION_TEXT	Description of the location of the parts of the street for which this additional street record is applicable for part road records only.	T 120		Con ⁸
DISTRICT_REF_AUTHORITY	The code for the Operational District within the authority.	N 3	District_Ref	Man
SWA_ORG_REF_MAINTAINING_DATA	A code for the organisation responsible for maintaining the data on the street.	N 4	SWA_CODE only	Con ⁹
DISTRICT_REF_MAINTAINING_DATA	The code for the Operational District within the maintaining authority responsible for maintaining the street date.	N 3	District_Ref	Con ¹⁰
STREET_ADOPTION_CODE	Road status as defined within the DfT Data Capture Codes.	N 2	Table 7.1.1	Opt
INTEREST_TYPE	The code indicates the nature of the interest of that the organisation has on the street.	N 1	Table 7.1.2	Man

⁸ Required if whole road = 0.

⁹ Required if DISTRICT_REF_MAINTAINING_DATA is not null.

¹⁰ Required if SWA_ORG_REF_MAINTAINING_DATA is not null.

7.1.2 Interest Type		
Code	INTEREST_TYPE	Description
1	Primary Notice Authority	The Street Authority or Permit Authority for the street.
8	All notifications	Used when an organisation has an interest in a street or part street but is not the highway authority and wishes to receive all NRSWA notices.
9	Restrictions or licences	Used when an organisation has an interest in a street or part street but only wishes to receive details of restriction notices or proposed street works licences.

8 Reinstatement Record

8.1 Reinstatement Designation Record (Type 62)				
Field	Description	Type / Max Length	Value Range	Status
RECORD_IDENTIFIER	Identifies this record as REINSTATMENT_DESIGNATIO N record.	N 2	62	Man
USRN	Unique street reference number.	N 8		Man
STREET_REINSTATEMENT_TYPE_SEQ_NUM	Sequential number for each street each type of reinstatement designation.	N 3		Man
STREET_REINSTATEMENT_TYPE_CODE	Reinstatement Type as defined with the DfT Data Capture Codes.	N 2	Table 8.1.1	Man
WHOLE_ROAD	Indicator as to whether the reinstatement category applies to the whole road. 0 indicates that it does not apply to the whole road, 1 indicates that it does.	N 1	0,1	Man
REINSTATEMENT_LOCATION_T EXT	Description of location of the part(s) of the street for which this reinstatement type is applicable.	T 250		Con ¹²
REINSTATEMENT_START_X	The X (eastings) co-ordinate of the start point of the reinstatement designation.	N 7.2	80000.00- 656100.00	Con
REINSTATEMENT_START_Y	The Y (eastings) co-ordinate of the start point of the reinstatement designation.	N 7.2	5000.00- 657700.00	Con
REINSTATEMENT_END_X	The X (northings) co-ordinate of the end point of the reinstatement designation. Co-ordinates are defined in meters.	N 7.2	80000.00- 656100.00	Con
REINSTATEMENT_END_Y	The Y (northings) co-ordinate of the end point of the reinstatement designation.	N 7.2	5000.00- 657700.00	Con ¹³

¹² Required if WHOLE_ROAD = 0.

¹³ Coordinates required if WHOLE_ROAD = 0.

Record example

62,62479000,1,2,1,"",,,,,

Notes

1. Each Reinstatement Designation record is a dependent (i.e. child) of a Street record and is cross referenced using the USRN.
2. All cross referenced Street records must be present in the same transfer file set, or in the case of uncoupled ASD submissions must already be present on the hub.
3. If whole road is set to '0' accurate coordinates and a textual description must be entered to provide location information.

8.1.1 Reinstatement Type Categories	
Code	STREET_REINSTATEMENT_TYPE_TEXT
1	Carriageway type 1 (10 to 30 MSA)
2	Carriageway type 2 (2.5 to 10 MSA)
3	Carriageway type 3 (0.5 to 2.5 MSA)
4	Carriageway type 4 (up to 0.5 MSA)
5	Carriageway type 0 (30 to 125 MSA)
6	High Duty Footway
7	High Amenity Footway
8	Other Footways
9	Private Street – No designation information held by street authority
10	Carriageway type 6 (over 125 MSA)

9 Special Designation Record

9.1 Special Designation Record (Type 63)					
Field	Description	Type / Max Length	Value Range	Status	
RECORD_IDENTIFIER	Identifies this record as SPECIAL_DESIGNATION record.	N 2	63	Man	
USRN	Unique street reference number.	N 8		Man	
STREET_SPECIAL_DESIG_NUM	Sequential number for each street for each type of special designation.	N 3		Man	
STREET_SPECIAL_DESIG_CODE	The type of special restriction that the record applies to (e.g. traffic sensitive).	N 2	Table 9.1.1	Man	
WHOLE_ROAD	Indicator as to whether the special designation applies to the whole road. 0 indicates that it does not apply to the whole road, 1 indicates that it does.	N 1	0,1	Man	
SPECIAL_DESIG_PERIODICITY_CODE	Numeric code describing the periodicity of the restriction.	N 2	Table 9.1.2	Man	
SPECIAL_DESIG_LOCATION_TEXT	Description of the location of the special designation within the street.	T 120		Con ¹⁴	
SPECIAL_DESIG_START_X	The X (eastings) co-ordinate of the start point of the special designation. Co-ordinates are defined in meters.	N 7.2	80000.00-656100.00	Con	
SPECIAL_DESIG_START_Y	The Y (northings) co-ordinate of the start point of the special designation. Co-ordinates are defined in meters.	N 7.2	5000.00-657700.00	Con	
SPECIAL_DESIG_END_X	The X (eastings) co-ordinate of the end point of the special designation. Co-ordinates are defined in meters.	N 7.2	80000.00-656100.00	Con	
SPECIAL_DESIG_END_Y	The Y (northings) co-ordinate	N 7.2	5000.00-	Con ¹⁵	

¹⁴ Required if WHOLE_ROAD = 0.

9.1 Special Designation Record (Type 63)				
Field	Description	Type / Max Length	Value Range	Status
	of the end point of the special designation. Co-ordinates are defined in meters.		657700.00	
SPECIAL_DESIG_START_DATE	Date on which the special designation comes into force (if it is seasonal).	Date		Opt
SPECIAL_DESIG_END_DATE	Date on which the special designation ceases to be in force (if it is seasonal).	Date		Opt
SPECIAL_DESIG_START_TIME	Time at which the special designation comes into force (if it has a specified time period).	Time		Opt
SPECIAL_DESIG_END_TIME	Time at which the special designation ceases to be in force (if it has a specified time period).	Time		Opt
SPECIAL_DESIG_DESCRIPTION	Description providing (for certain designations) additional information.	T 120		Opt
SWA_ORG_REF_CONSULTANT	A code for the authority who must be consulted with regards to the special designation.	N 4	SWA _Code	Con ¹⁶
DISTRICT_REF_CONSULTANT	The code of the operational district for the authority who must be consulted with regards to the special designation.	N 3		Con ¹⁷

Record example

63,47900011,1,2,1,2,"" ,,,,,,07:30,09:30,"Market Street stalls",114,1

Notes

1. Each Special Designation record is a dependent (i.e. child) of a Street record and is cross referenced using the USRN.
2. All cross referenced Street records must be present in the same transfer file set, or in the case of uncoupled ASD submissions must already be present on the hub.
3. If whole road is set to '0' accurate coordinates and a textual description must be entered to

¹⁵ Coordinates required if WHOLE_ROAD = 0.

¹⁶ Required if DISTRICT_REF_CONSULTANT is not null.

¹⁷ Required if SWA_ORG_REF_CONSULTANT is not null.

- provide location information.
4. Periodicity codes 4, 5 and 6 should not be used.

9.1.1 Special Designation Types	
Code	STREET_SPECIAL_DESIG_TEXT
1	Protected Street
2	Traffic Sensitive
3	Special Engineering Difficulty (SED)
4	Street Designations do not apply to Works
5	Not used
6	Proposed Special Engineering Difficulty
7	Not used
8	Level Crossing Safety Zone
9	Environmentally Sensitive Areas
10	Structures (not Special Engineering Difficulty)
11	Special Surfaces
12	Pipelines
13	Priority lanes
14	Special Construction needs
15	Section 85
16	Strategic Route
17	Streets subject to early notification of immediate activities
18	Special Events
19	Parking Bays and Restrictions
20	Pedestrian Crossings and Traffic Signals
21	Speed Limits
22	Transport Authority Critical Apparatus

9.1.2 Special designation periodicity	
Code	SPECIAL_DESIG_PERIODICITY_TEXT
1	Everyday
2	Working days only
3	Weekends and public holidays only

9.1.2 Special designation periodicity	
Code	SPECIAL_DESIG_PERIODICITY_TEXT
4	Weekly
5	Monthly
6	Annually
7	Monday only
8	Tuesday only
9	Wednesday only
10	Thursday only
11	Friday only
12	Saturday only
13	Sunday only

10 Height Width and Weight Record

10.1 Height Width and Weight Restriction (Type 64)				
Field	Description	Type / Max Length	Value range	Status
RECORD_IDENTIFIER	Identifies this record as HWW_DESIGNATION record.	N 2	64	Man
USRN	Unique street reference number.	N 8		Man
HWW_SEQUENCE_NUMBER	Sequential number for each type of HWW on a street.	N 3		Man
HWW_DESIGNATION_CODE	The type of restriction that the record applies to.	N 1	Table 10.1.1	Man
RECORD_ENTRY_DATE	A date on which the record was entered or a new instance created.	Date	Present day or earlier	Man
RECORD_START_DATE	The date the which the restriction came into effect.	Date	Present day or earlier	Man
LAST_UPDATE_DATE	The date on which any attribute of the record was changed.	Date	Greater than or equal to the Record_Entry_Date and less than or equal to Present day	Man
RECORD_END_DATE	The date on which the record ceased to exist.	Date	Present day or earlier	Con ¹⁸
WHOLE_ROAD	Indicator as to whether the restriction applies to the whole road. 0 indicates that it does not apply to the whole road, 1 indicates that it does.	N 1		Man
HWW_LOCATION_TEXT	Description of the location of the restriction within the street.	T 120		Con ¹⁹
START_X	The X (eastings) co-ordinate of the start point of the restriction. Co-ordinates are defined in meters.	N 7.2	80000.00-656100.00	Con
START_Y	The Y (northings) co-ordinate	N 7.2	5000.00-	Con

¹⁸ Required if the record is to be closed.

¹⁹ Required if WHOLE_ROAD = 0.

10.1 Height Width and Weight Restriction (Type 64)				
Field	Description	Type / Max Length	Value range	Status
	of the start point of the restriction. Co-ordinates are defined in meters.		657700.00	
END_X	The X (eastings) co-ordinate of the end point of the restriction. Co-ordinates are defined in meters.	N 7.2	80000.00-656100.00	Con
END_Y	The Y (northings) co-ordinate of the end point of the restriction. Co-ordinates are defined in meters.	N 7.2	5000.00-657700.00	Con ²⁰
VALUE_METRIC	Value in metric for the restriction. Metres or tonnes.	N 2.1		Man
TRO_TEXT	Precise wording of the restriction if it is the result of a Traffic Regulation Order. Should include the imperial value of the restriction if specified in the TRO.	T 120		Con ²¹
FEATURE_DESCRIPTION	Description providing additional information.	T120		Opt

Record example

64,47900011,1,2,2008-01-10,2008-01-10,2008-01-10,,1,"",,,,,,3.0,"Height restriction of 9 feet 8 inches","Hump back bridge"

Notes

1. Each Height Width and Weight Restriction record is a dependent (i.e. child) of a Street record and is cross referenced using the USRN.
2. All cross referenced Street records must be present in the same transfer file set, or in the case of uncoupled ASD submissions must already be present on the hub.
3. If whole road is set to '0' accurate coordinates and a textual description must be entered to provide location information.
4. RECORD_ENTRY_DATE can be any date on or before the present day. However if the date the record was created is unknown (during the transition period) then it is recommended that the user enters a default of the present date.

²⁰ Coordinates required if WHOLE_ROAD = 0.

²¹ TRO_TEXT must be supplied if the restriction is the subject of a Traffic Regulation Order. Cannot be supplied for advisory restrictions.

10.1.1 HWW	
Code	HHW_TEXT
1	HEIGHT RESTRICTION
2	WIDTH RESTRICTION
3	WEIGHT RESTRICTION

11 One Way Exemptions Record

11.1 One Way Street Exemption (Type 65)					
Field	Description	Type / Max Length	Value range	Status	
RECORD_IDENTIFIER	Identifies this record as One way street record.	N 2	65	Man	
ESU_ID	ESU_ID number.	N 14		Man	
SEQUENCE_NUMBER	Sequential number for each one way record applicable to a street.	N 3		Man	
ONE_WAY_EXEMPTION_TYPE	Type of traffic that is exempt from one way restrictions.	N 1	Table 11.1.1	Man	
RECORD_ENTRY_DATE	A date on which the record was entered or a new instance created.	Date	Present day or earlier	Man	
LAST_UPDATE_DATE	The date on which any attribute of the record was changed.	Date	Greater than or equal to the Record_Entry_Date and less than or equal to Present day	Man	
RECORD_END_DATE	The date on which the record ceased to exist.	Date	Present day or earlier	Con ²²	

Record example

65,3768470166493,1,2,2004-03-15,2004-03-15,2008-10-02

Notes

1. Each One Way Street exemption record is a dependent (i.e. child) of an Elementary Street Unit record and is cross referenced by the ESUID.
2. All cross referenced Elementary Street Unit records must be present in the same transfer file set and flagged as one way.
3. One way street exception records must only be transmitted for a street if the ESU_DIRECTION code is set to 2 or 3.

²² Required if the record is to be closed.

11.1.1 One way exemption types	
Code	ONE_WAY_EXEMPTION_TYPE
1	Buses
2	Cycles
3	Taxis
4	Emergency vehicles
5	HGVs & Vans

12 The DTF Family and Implementation timetable

12.1 Previous DTF versions

The former data transfer format (compliant with BS7666:2000) was known as NSG CSV and is in a comma separated format. It is specified in the Technical Specification for EToN.

12.2 Drivers for change

The principal drivers for change to a new format of transfer for the NSG have been:

- The second review of BS7666, which confirmed the continued relevance of the standard and suggested minor revisions to enhance its usability. This document takes full account of the contents of, and is in full compliance with, BS7666:2006 parts 0 and 1.
- The development and publication of new Codes of Practice under the Traffic Management Act and the introduction of web services for EToN transactions.
- The move to a full monthly LSG and ASD submission to the NSG hub as defined under the New Roads and Street Works Act (1991), regulations and codes of practice.

12.3 The DTF 7 family

To allow for the phased move from csv formats to XML formats for the NLPG and NSG Hubs. The NSG Concessionnaire will implement a family of data transfer formats based around the drivers detailed in 12.2. The family will comprise:

- 7.1 NSG csv
- 7.2 NSG XML
- 7.3 NLPG csv
- 7.4 NLPG XML.

12.4 Implementation Timetable

The current proposal for implementation is as follows:

Summer 2008	DTF 7.1 consultation
October 2008	DTF 7.1 sign off agreement and timescales set
April 2009	DTF 7.1 implementation on NSG hub for LSG and ASD full monthly updates
April 2010	NSG CSV abolition (all users move to DTF 7.1).

These proposals will require a certain amount of dual running of both the NSG and NSG:2006 Hubs and close co-operation between the NSG Hub, software suppliers, LSG Custodians and ASD Creators to update the LSG software, LSG and ASD data and the NSG in a controlled manner.

End user and / or stakeholder cooperation is essential to ensure that all software is updated accordingly and to make use of the value added data.

13 Compliance Testing for LSG and LLPG software

13.1 Software supplier validation

The validation of LSG and ASD submissions to the NSG Hub is currently done on-line at the time of submission. To assist the developers and suppliers of LSG and ASD maintenance software the NSG Hub has set out a pseudo contributing authority account for each such developer or supplier to enable them to submit test files for validation. Requests for these accounts should be made to the NSG Hub who will inform the suppliers of the appropriate user names and passwords, USRN range, local authority identifier and pseudo authority name to be used.

13.2 Uploading files for compliance testing

The NSG hub conducts on-line validation of LSG and ASD files at the time of submission. All compliance testing is undertaken via the web site, accessed by authorised users only. Details of how to upload and compliance test files are available in the FAQ section of www.thensg.org.uk.

13.3 Compliance Checks

Details of the current compliance checks are available via the FAQ section of www.thensg.org.uk. The checks are reviewed from time to time to ensure the quality of the LSG and ASD data improves as the requirements of end users change with data specifications etc. Further versions of the Compliance Check document will be made available via the pages of www.thensg.org.uk.

13.4 Data Entry Conventions and Best Practice Guidance Documentation

The DEC-NSG - Data Entry Conventions and Best Practice for the National Street Gazetteer (NSG) guidance documentation, supported by DTF7.1, were produced by the NSG Technical Working Group.

The group convened under the auspices of the LGIH and was ratified by the Regional Chairs LSG Custodian Group community. The volunteer members of the working group were accepted from a number of applicants across the stakeholder community.

The documentation is reviewed from time to time with further publications and refinements to the text made available via the FAQ section of www.thensg.org.uk.

14 Use of language flag

The NSG has adopted the following guidelines on the completion of the language flags that have been added to the street record.

14.1 English Authorities

Within LSGs created by any of the 150 (152 from 1st April 2009) creating authorities within England, the only valid language is English and accordingly each street descriptor (record type 15) will carry a value of "ENG" in the LANGUAGE field. In all cases, the given name of a street is to be flagged as English, including those circumstances where street may have been named in honour of a foreign national or to reflect historical ties between English towns and foreign counterparts.

14.2 Welsh Authorities

Within the 22 Welsh Authorities there is a legal obligation to respect the wishes of the citizen to communicate with the authority in English or Welsh and therefore to make any street information held by the authority available to the citizen in their chosen language. Accordingly, where a street descriptor within an LSG can be considered to be an "official" street name it must be provided in both languages.

Thus, all new street descriptors can be specifically named officially in English only or officially in Welsh only or officially in both.

In the first case both the Welsh and English flagged street records will contain the same "English" name, in the second both would contain the "Welsh" name and in the third case the English and Welsh translations would be held against the appropriate flags.

In all cases the Welsh flagged streets need to hold locality, town and authority information in their Welsh forms and the English flagged streets need to hold the English forms. Mixed language locality, town, authority constructs are not allowed.

Detailed guidelines on the requirements of public bodies to allow for the bi-lingual approach to language adopted in Wales are available from:

Bilingual Software Guidelines and Standards
Welsh Language Board
ISBN 095353342 5

Canllawiau A Safonau Meddalwedd Dwyieithogg
Bwrdd Iaith Gymraeg
RSLR 095353342 5