Descriptive Breakdown Of ATCO.cif files

Metro Timetables

Translink

Translink CIF file

This document will provide a descriptive breakdown of an ATCO.cif file provided by Translink to LPS. An ATCO.cif File Specification has been provided to assist in deciphering the codes but it is only relevant to data related to timetable interchanges and so not all of the data can be deciphered using this Specification.

Each CIF file begins with a File Header followed by the timetable details which can be broken into a number of sections. In this case, 5 sections:

1. Timing Point location records;
2. Route details;
3. Service Details;
4. Stops;
5. Journey Details.

Each part of code within each record has been identified, named and explained. Although this has resulted in high level repetition, it was considered preferable to referencing different parts of the document thus forcing the reader to search through the document to decipher the codes.

File Header

Each Cif File begins with a File Header, which is the unique record that identifies the file:

ATCO-CIF0500Ulsterbus OMNITIMES 20120726130414

File Type	-	ATCO-CIF
Release Version	-	05
Release Revision	-	00
File Originator	-	Ulsterbus
Source Product	-	OMNITIMES
Production Date	-	20120726
Production Time	-	130414

The ‘File Type’ refers the reference used to identify the file.

The ‘Release Version’ is the current release version of CIF format.

The ‘Release Revision’ is the current revision of the released CIF format.

The ‘File Originator’ is the name of the company/authority that provided the file.

The ‘Source Product’ refers to the name of the software program used to create the ATCO.cif file.

The ‘Production Date’ refers to the date the CIF file was produced (not the timetable).

The ‘Production Time’ refers to the time the CIF file was created in hours, minutes and seconds, e.g. 130414 represents 13:04:14, in the format hhmmss.

Section 1 - Timing Point location records

Section 1 begins on the second row of the CIF document. This section of the file contains the location records for each timing point (TP) within the Route. Each record is presented over two rows: one for the Timing Point Name; and the other for the timing point location provided as co-ordinates.

QLN700000015364Upper Queen Street 1

Record Identity	-	QL
Transaction Type	-	N
Location	-	700000015364
Full Location	-	Upper Queen Street 1

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QL denotes ‘Bus Location’.

‘Transaction Type’ relates to the status of the record, i.e. N=New; D=Delete; R=Revise.

The ‘Location’ is the short code form of the location which uniquely identifies the timing point using a 12-digit reference number that begins with a 7.

The ‘Full Location’ provides the full text-form name attributed to the timing point which is used for publicity purposes. This includes any supplementary information required to ensure the location is named uniquely.

QBN700000015364333619 374042

Record Identity	-	QB
Transaction Type	-	N
Location	-	700000015364
Grid Ref. Easting	-	333619
Grid Ref. Northing	-	374042

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QB denotes ‘Bus Additional Location Information’.

‘Transaction Type’ relates to the status of the record, i.e. N=New; D=Delete; R=Revise.

The ‘Location’ is the short code form of the location which uniquely identifies the timing point using a 12-digit reference number that begins with a 7.

The ‘Grid Ref. Easting’ is the Easting co-ordinate required to locate the service stop using the Irish National Grid system.

The ‘Grid Ref. Northing’ is the Northing co-ordinate required to locate the service stop using the Irish National Grid system.

Section 2 - Route details

This section of the file provides high-level information about the Route such as the operator, direction and timetable validity.

QPNTM Translink Metro Translink Metro

Record Identity	-	QP
Transaction Type	-	N
Operator	-	TM
Operator Short Form	-	Translink Metro
Operator Legal Name	-	Translink Metro

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QP denotes Bus Operator.

‘Transaction Type’ relates to the status of the record, i.e. N=New; D=Delete; R=Revise.

The ‘Operator’ refers to the short-code used to identify the ‘Route Operator’.

The ‘Operator Short Form’ is the short-form name of the operator used for publicity purposes, e.g. Translink Metro, Ulsterbus, Goldline etc.

The ‘Operator Legal Name’ is the full-form name of the operator.

ZLTMAO001A O

Record Identity	-	ZL
Operator	-	TM
Variance Code	-	A
Direction	-	O
Service No.	-	001A
Direction	-	O

The ‘Record Identity’ is used to identify the record and indicate what information it will contain.

The ‘Operator’ refers to the short-code used to identify the ‘Route Operator’.

The ‘Variance Code’ is a code used by Translink.

‘Direction’ refers to the direction the service is running, i.e. ‘O’ for Outbound and ‘I’ for Inbound.

‘Service No.’ refers to the number assigned to the service that is running.

‘Direction’ appears again in this row but has the same meaning.

ZD20120903 20120928 Monday to Friday

Record Identity	-	ZD
First Date of Operation	-	20120903
Last Date of Operation	-	20120928
Days of Service	-	Monday to Friday

The ‘Record Identity’ is used to identify the record and indicate what information it will contain.

‘First Date of Operation’ refers to the date from which the timetable is valid.

‘Last Date of Operation’ refers to the date until which the timetable information remains valid but this can be changed or extended and so Translink consider this date to be irrelevant.

‘Days of Service’ identifies which days the service will run, i.e. Monday to Friday, Saturday Only, Sundays Only etc.

Section 3 – Service Details

This section of the file lists all the services included in the timetable by route number and name.

ZSTMAO001B1B City Centre - New Mossley - Manse Way

Record Identity	-	ZS
Operator	-	TM
Variance Code	-	A
Route Direction	-	O
Route No. Full	-	001B
Route No. Short	-	1B
Route Description	-	City Centre - New Mossley - Manse Way

The ‘Record Identity’ is used to identify the record and indicate what information it will contain.

The ‘Operator’ refers to the short-code used to identify the ‘Route Operator’.

The ‘Variance Code’ is a code used by Translink.

The ‘Route Direction’ is the user code that identifies the direction of the journey, i.e. O = Outbound and I = Inbound

The ‘Route No. Full’ refers to the full 4-digit reference used as a public identifier of the service, i.e. 001B is for Route 1B.

The ‘Route No. Short’ refers to the shortened reference used as a public identifier of the service, i.e. 1B is the shortened reference used for Route 001B.

The ‘Route Description’ is a text description of the route that distinguishes one direction from another including any direction-indicative stops, i.e. the origin and destination of the route with other intermediate stops that are essential in indicating the particular route taken between these stops.

Section 4 - Stops

This section of the file lists all of the bus stops involved in this timetable. The information presented includes the Stop Location and, if there is one, the Stop name. There are other codes included to represent further information relevant to each stop.

ZBN700000015364City Centre (Upper Queen Street) P1W1T1

Record Identity	-	ZB
Transaction Type	-	N
Location	-	700000015364
Stop Name	-	City Centre (Upper Queen Street)
Public Timetable Status	-	P1
Working Timetable Status	-	W1
Timing Point Indicator	-	T1

The ‘Record Identity’ is used to identify the record and indicate what information it will contain.

‘Transaction Type’ relates to the status of the record, i.e. N=New; D=Delete; R=Revise.

The ‘Location’ comes next which uniquely identifies the stop using a reference number that begins with a 7 and contains 12 digits.

The ‘Stop Name’ refers to the specific name assigned to the stop, if there is one.

The ‘Public Timetable Status’ refers to whether or not the timetable is available in the Public Timetable, i.e. P1 = Timetable IS in Public Timetable; P0 = Timetable is NOT in Public Timetable.

The ‘Working Timetable Status’ refers to whether or not the timetable is available in the Working Timetable, i.e. W1 = Timetable IS in Working Timetable; W0 = Timetable is NOT in Working Timetable.

The ‘Timing Point Indicator’ denotes whether the stop is a timing point or not, i.e. T1 for timing point or T0 for a non- timing point.

Section 5 – Journey Details

This is the final section and contains the breakdown of details for each individual journey timetabled within this one file.

QSNTM 0510 20120903201209281111100 X1A DD O

Record Identity	-	QS
Transaction Type	-	N
Operator	-	TM
Unique Journey Identifier	-	0510
First Date of Operation	-	20120903
Last Date of Operation	-	20120928
Days of Service	-	1111100
Route Number	-	X1A
Vehicle Type	-	DD
Route Direction	-	O

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QS denotes ‘Bus Journey Header’.

‘Transaction Type’ relates to the status of the record, i.e. N=New; D=Delete; R=Revise.

The ‘Operator’ refers to the short-code used to identify the ‘Route Operator’.

The ‘Unique Journey Identifier’ is used to uniquely identify the journey within the operator. According to the ATCO.cif specification, this should be a 6-letter ID but Translink appears to be using a 4-digit time reference which identifies the commencement time of the journey. This identifier combined with the ‘Operator’ code provides a unique identifier for the service.

‘First Date of Operation’ refers to the date from which the timetable is valid.

‘Last Date of Operation’ refers to the date until which the timetable information remains valid but this can be changed or extended and so Translink consider this date to be irrelevant.

‘Days of Service’ indicates in which days this particular route will run. A ‘1’ means it IS running on that day and a ‘0’ means it is NOT running on that day. The days will always be in the order of Monday – Sunday. In this instance, the service runs Monday through to Friday but does not run on Saturday or Sunday.

‘Route Number’ refers to the number assigned to the service that is running.

(Potential location of ‘Running Board’ – Operator identifier of journey)

‘Vehicle Type’ is the user code that identifies the vehicle type running along the route.

(Potential location of ‘Registration Number’ – Traffic commissioner’s registration number)

The ‘Route Direction’ is the user code that identifies the direction of the journey, i.e. O = Outbound and I = Inbound

This record could also contain a ‘Running Board’ identifier that would identify the Journey Operator and a ‘Registration Number’ which would be the Traffic Commissioners registration number but these are not contained within this record.

ZJTMAO001A001 1131 CB 0510 C L0

Record Identity	-	ZJ
Operator	-	TM
Variance Code	-	A
Route Direction	-	O
Route No. Full	-	001A
Route No. Short	-	001
Unknown	-	1131
Vehicle Type	-	CB
Published Departure Time	-	0510
Unknown	-	C
Unknown	-	L0

The ‘Record Identity’ is used to identify the record and indicate what information it will contain.

The ‘Operator’ refers to the short-code used to identify the ‘Route Operator’.

The ‘Variance Code’ is a code used by Translink.

The ‘Route Direction’ is the user code that identifies the direction of the journey, i.e. O = Outbound and I = Inbound

The ‘Route No. Full’ refers to the full 4-digit reference used as a public identifier of the service, i.e. 001A is for Route 1A.

The ‘Route No. Short’ refers to the shortened reference used as a public identifier of the service, i.e. 1B is the shortened reference used for Route 001B.

The ‘Vehicle Type’ is a user code used by the Operator to identify the type of vehicle being used for the journey.

The ‘Published Departure Time’ is the public departure time expressed in 24hr clock format (0001-2359).

The ‘Unknown’ items are parts of the file which LPS cannot decipher as the Specification provided only covers items with a Record Identity beginning with a ‘Q’ and so there is no breakdown for Record Identities commencing with ‘Z’. The majority of these records have been deciphered using the specification provided in conjunction with feedback from Translink.

QO700000015364 0510 UQS T1

Record Identity	-	QO
Location	-	700000015364
Published Departure Time	-	0510
Bay Number	-	UQS
Timing Point Indicator	-	T1

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QO denotes ‘Bus Journey Origin’.

The ‘Location’ comes next which uniquely identifies the stop using a reference number that begins with a 7 and contains 12 digits.

The ‘Published Departure Time’ is the public departure time expressed in 24hr clock format (0001-2359).

The ‘Bay Number’ is a code used to identify the Bay or Stop.

The ‘Timing Point Indicator’ denotes whether the stop is a timing point or not, i.e. T1 for timing point or T0 for a non- timing point.

(Potential location of ‘Fare stage Indicator’: F1 = Fare Stage; F0 = Not Fare Stage)

QI700000001749 0510 0510 B T0

Record Identity	-	QI
Location	-	700000001749
Published Arrival time	-	0510
Published Departure Time	-	0510
Activity Flag	-	B
Timing Point Indicator	-	T0

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QI denotes ‘Bus Journey Intermediate’.

The ‘Location’ comes next which uniquely identifies the stop using a reference number that begins with a 7 and contains 12 digits.

The ‘Published Arrival Time’ is the public arrival time expressed in 24hr clock format (0001-2359).

The ‘Published Departure Time’ is the public departure time expressed in 24hr clock format (0001-2359).

The ‘Activity Flag’ denotes the activity of the journey at this stop, i.e. B = both pick up and set down; P = Pick-up Only; S = Set-down Only; N = Neither Pick-up nor Set-down (pass only).

(Potential location of ‘Bay Number’ – Bay/Stop identifier)

The ‘Timing Point Indicator’ denotes whether the stop is a timing point or not, i.e. T1 for timing point or T0 for a non- timing point.

(Potential location of ‘Fare stage Indicator’ – F1 = Fare Stage; F0 = Not Fare Stage)

QI700000001752051105 11BR1 T1

Record Identity	-	QI
Location	-	700000001752
Published Arrival time	-	0511
Published Departure Time	-	0511
Activity Flag	-	B
Bay Number	-	R1
Timing Point Indicator	-	T1

The ‘Record Identity’ is used to identify the record and indicate what information it will contain.

The ‘Location’ comes next which uniquely identifies the stop using a reference number that begins with a 7 and contains 12 digits.

The ‘Published Arrival Time’ is the public arrival time expressed in 24hr clock format (0001-2359).

The ‘Published Departure Time’ is the public departure time expressed in 24hr clock format (0001-2359).

The ‘Activity Flag’ denotes the activity of the journey at this stop, i.e. B = both pick up and set down; P = Pick-up Only; S = Set-down Only; N = Neither Pick-up nor Set-down (pass only).

The ‘Bay Number’ is a code used to identify the Bay or Stop.

The ‘Timing Point Indicator’ denotes whether the stop is a timing point or not, i.e. T1 for timing point or T0 for a non- timing point.

(Potential location of ‘Fare stage Indicator’ – F1 = Fare Stage; F0 = Not Fare Stage)

QT7000000014450539 T1

Record Identity	-	QT
Location	-	700000001445
Published Arrival time	-	0539
Timing Point Indicator	-	T1

The ‘Record Identity’ is used to identify the record and indicate what information it will contain. QT denotes ‘Bus Journey Destination’.

The ‘Location’ comes next which uniquely identifies the stop using a reference number that begins with a 7 and contains 12 digits.

The ‘Published Arrival Time’ is the public arrival time expressed in 24hr clock format (0001-2359).

(Potential location of ‘Bay Number’ – Bay/Stop identifier)

The ‘Timing Point Indicator’ denotes whether the stop is a timing point or not, i.e. T1 for timing point or T0 for a non- timing point.

(Potential location of ‘Fare stage Indicator’ – F1 = Fare Stage; F0 = Not Fare Stage)

Closing statement:

The information within this file can also be applied to the Inbound Routes but the layout differs as many details are in reverse, e.g. in Section 3 the Route Description changed from City Centre - New Mossley - Manse Way to become Manse Way - New Mossley - City Centre. Also, the list of bus stops is displayed in reverse for the Inbound Routes to reflect the journeys travelling in the opposite directions.

Having worked with only a small sample of data, there could be alternative rows or additional information in other timetables that do not exist in this sample and so cannot be accounted for in this document. However, the Specification in the appendix will provide basic translation of the coding where is relates to Interchange Timetable Data, i.e. record identities beginning with a ‘Q’.

Appendix

ATCO-CIF Specification

ATCO File Format for Interchange of Timetable Data

This version of the ATCO file format for interchange of timetable information uses the BR CIF interchange format as a model and adds additional records to take account of the specifics of bus timetables. Version 5.00 incorporated major revisions to record layouts and is not upwardly compatible with previous versions. This version (5.10) extends the location record to include a National Gazetteer ID for PTI2000 purposes, but is otherwise the same as 5.00.

In the BR CIF each record type is distinguished by a two letter identifier in characters 1 and 2 of an up to 80 character record. This principal has been continued in the transfer format. In this version of the format the record length has been allowed to extend to 120 characters.

The transfer format is intended as a general purpose transfer mechanism of the more common elements of timetable enquiry information between different proprietary databases. The transfer format does not define the quality of the data being transferred, nor the coding schemes being used within a database. It is expected that standard coding schemes will be adopted over time and added as appendices to the specification. The transfer format does include provision for some items of meta-data. Fields may be left blank where data is not available in the exporting database.

The principals of the transfer format (record identifier and fielded data content) can be extended by creating other record identifiers. Use of 'Z' series identifiers is suggested for proprietary extensions.

Definitions

A **Journey** is the movement of a vehicle (bus, train etc.) described by a chronologically increasing sequence of stopping points and times from an origin terminal point to a destination terminal point. Conventionally this is appears as a column in a printed timetable.

A **Service** is a label attached to a group of journeys with (more or less) common stopping points. A **Route** can comprise of one or more services. The **Route Number** is often used to identify the vehicle undertaking the journey to the public.

A service is operated by an **Operator**, normally described by company trading name. A route can be operated by more than one operator.

Stops define the geographical locations at which events happen during the course of a journey. Often a journey is described by a sub-set of the stops known as **Timing Points** which are the stops defined in a printed timetable.

Events during the course of a journey describe what happens to the vehicle at each stop or timing point.

Possible events are:-
- Stops to set down and pick up passengers
- Arrives to set down passengers
- Departs having picked up passengers
- Does not stop for passengers

Valid days are days of the week and other special days (e.g. bank holidays, school term time) the journey operates.

Valid dates define the first and last date of operation of the journey. In this version of the format full four digit years are used. Previous versions used 2 digit years for compatibility with the BR CIF format. 99999999 may be used to define a journey with unknown last date.

Clusters are geographical groupings of stops at which it is possible to change from one journey to another.

The **Interchange Time** is the minimum time needed to change between journeys at a stop or within a cluster.

ATCO-CIF Specification

Record Layouts

Field	Size/ (Start)	Format	Comment
0. File Header	This record must be the first record on any transfer file.		
File Type	8 (1)	A	ATCO-CIF - File Identifier
Version (Major)	2 (9)	I	Release version of CIF format (currently 5)
Version (Minor)	2 (11)	A	Revision of release (currently 10)
File Originator	32 (13)	A	Name of source of file (Authority etc)
Source Product	16 (45)	A	Name of source product (Program name)
Production Date	8 (61)	I	Date of file production (yyyymmdd)
Production Time	6 (69)	I	Time of file production (hhmmss)
1. Journey Records			
1a. Journey Header	One record per journey. A journey header may be immediately followed by optional sets of date running records and journey note records and should then be followed by a set of journey records (origin, intermediate, destination) giving a set of records that completely define dates, times, places, operator and vehicle type of the journey. The entire set of records relating to a single journey may be immediately followed by one or more journey repetition records.		
Record Identity	2 (1)	A	QS - Bus Journey Header
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Operator	4 (4)	A	Short code form of operator identifier
Unique Journey Identifier	6 (8)	A	Unique identifier of journey within operator This field with operator field will give unique identifier
First date of operation	8 (14)	I	Start date of operation of journey (yyyymmdd)
Last date of operation	8 (22)	I	Last date of operation of journey (yyyymmdd)
Operates on Mondays	1 (30)	I	} 0 = does not operate on day
Operates on Tuesdays	1 (31)	I	} 1 = operates on day
Operates on Wednesdays	1 (32)	I	}
Operates on Thursdays	1 (33)	I	}
Operates on Fridays	1 (34)	I	}
Operates on Saturdays	1 (35)	I	}
Operates on Sundays	1 (36)	I	}
School Term Time	1 (37)	A	Blank = Operates days defined above S = Operates school term time only H = Operates school holidays only
Bank Holidays	1 (38)	A	Blank = Operates days defined above A = Operates additionally on bank holidays B = Operates on bank holidays only X = Operates except on bank holidays
Route Number (identifier)	4 (39)	A	Route number used as public identifier
Running Board	6 (43)	A	Operator identifier of journey
Vehicle Type	8 (49)	A	User code for vehicle type
Registration Number	8 (57)	A	Traffic commissioners registration number
Route Direction	1 (65)	A	User code to indicate direction of route

ATCO-CIF Specification

1b. Journey Date Running Records — These records can be used to identify exceptions to the first and last dates of operation in the journey header. There can be an indeterminate number of these records.

Record Identity	2 (1)	A	QE - Journey Date Running
Start of exceptional period	8 (3)	I	Date (yyyymmdd)
End of exceptional period	8 (11)	I	Date (yyyymmdd)
Operation code	1 (19)	I	0=Journey does not operate between these dates 1=Journey operates between these dates

1c. Journey Note Record — These records can be used to append note information about the journey to timetable displays
There can be an indeterminate number of these records.

Record Identity	2 (1)	A	QN - Journey Note
Note code	5 (3)	A	Abbreviation for note appended to journey
Note text	72 (8)	A	Full text of note

Journey Records — One origin record, followed by an indeterminate number of intermediate records and one destination record.

1d. Origin Record

Record Identity	2 (1)	A	QO - Bus Journey Origin
Location	12 (3)	A	Short code form of origin location
Published Departure Time	4 (15)	I	Public departure time (hhmm 24 hour clock 0001-2359)
Bay Number	3 (19)	A	Bay/Stop identifier
Timing point indicator	2 (22)	A	T1=Timing point T0=Not timing point
Fare stage indicator	2 (24)	A	F1=Fare stage F0=Not fare stage

1e. Intermediate Record

Record Identity	2 (1)	A	QI - Bus Journey Intermediate
Location	12 (3)	A	Short code form of intermediate location
Published Arrival Time	4 (15)	I	Public arrival time (hhmm 24 hour clock 0001-2359)
Published Departure Time	4 (19)	I	Public departure time (hhmm 24 hour clock 0001-2359)
Activity Flag	1 (23)	A	B=Both Pick up and Set down P=Pick up only S=Set down only N=Neither pick up nor set down (pass only)
Bay Number	3 (24)	A	Bay/Stop identifier
Timing point indicator	2 (27)	A	T1=Timing point T0=Not timing point
Fare stage indicator	2 (29)	A	F1=Fare stage F0=Not fare stage

ATCO-CIF Specification

1f. Destination Record

Record Identity	2 (1)	A	QT - Bus Journey Destination
Location	12 (3)	A	Short code form of destination location
Published Arrival Time	4 (15)	I	Public arrival time (hhmm 24 hour clock 0001-2359)
Bay Number	3 (19)	A	Bay/Stop identifier
Timing point indicator	2 (22)	A	T1=Timing point T0=Not timing point
Fare stage indicator	2 (24)	A	F1=Fare stage F0=Not fare stage

1g. Journey Repetition Record

These records can be used to identify subsequent journeys which run to exactly the same sequence of stops as the immediately preceding journey records with exactly the same time differences between each stop.

Record Identity	2 (1)	A	QR - Bus Journey Repetition
Location	12 (3)	A	Short code form of origin location
Published Departure Time	4 (15)	I	Public departure time (hhmm 24 hour clock 0001-2359)
Unique Journey Identifier	6 (19)	A	Unique identifier of journey within operator
Running Board	6 (25)	A	Operator identifier of journey
Vehicle Type	8 (31)	A	User code for vehicle type

ATCO-CIF Specification

2. Location Records One location record followed by an optional additional record and an indeterminate number of alternative location records.

2a. Location Record

Record Identity	2 (1)	A	QL - Bus Location
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Location	12 (4)	A	Short code form of location
Full Location	48 (16)	A	Full text form of location used for publicity (including supplemental information to ensure uniqueness of location)
Gazetteer Code	1 (64)	A	User code to indicate type of location entry
Point Type	1 (65)	A	B = Bay/Stand/Platform S = Bus stop on single side of street P = Paired bus stops (both sides of street together) R = Railway station I = Transport interchange/bus station D = Database boundary point
National Gazetteer ID	8 (66)	A	ID of entry in National Gazetteer for this location

2b. Additional Location Information Record

Record Identity	2 (1)	A	QB - Bus Additional location Information
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Location	12 (4)	A	Short code form of location
Grid reference easting	8 (16)	I	Grid reference easting of location
Grid reference northing	8 (24)	I	Grid reference northing of location
District name	24 (32)	A	Form of location to be used when specific location is not required
Town name	24 (56)	A	Higher level form of location to be used when specific location is not required

2c. Alternative Location Record

Record Identity	2 (1)	A	QA - Bus Alternative Location
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Location	12 (4)	A	Short code form of location
Full Location	48 (16)	A	Alternative full text form of location used for publicity (including supplemental information to ensure uniqueness of location)
Gazetteer Code	1 (64)	A	User code to indicate type of location entry

ATCO-CIF Specification

3. Cluster Record	Indeterminate number of records		
Record Identity	2 (1)	A	QC - Bus Cluster
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Cluster Code	12 (4)	A	Short code form of cluster
Cluster Name	48 (16)	A	Full text form of cluster name for identification (Optional)
Location	12 (64)	A	Short code form of location contained within cluster
4. Operator Records	One pair of records per operator		
4a. Operator Record 1			
Record Identity	2 (1)	A	QP - Bus Operator
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Operator	4 (4)	A	Short code form of operator identifier
Operator Short Form	24 (8)	A	Short form of operator name used for publicity
Operator Legal Name	48 (32)	A	Full form of operator name
Enquiry Phone	12 (80)	A	Phone number of travel enquiry service
Contact Phone	12 (92)	A	Phone number for other enquiries
4b. Operator Record 2			
Record Identity	2 (1)	A	QQ - Bus Operator Continuation
Operator Address	78 (3)	A	Operator contact address in comma separated form
5 Interchange Records	Indeterminate number of records		
5a. Location Interchange			
Record Identity	2 (1)	A	QG - Bus Location Interchange
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
First Location	12 (4)	A	Short code form of location
Second Location	12 (16)	A	Short code form of location
Interchange time	3 (28)	I	Minimum recommended interchange time from first location to second location
First Location	12 (31)	A	Short code form of location
Second Location	12 (43)	A	Short code form of location
Interchange time	3 (55)	I	Minimum recommended interchange time from first location to second location
First Location	12 (58)	A	Short code form of location
Second Location	12 (70)	A	Short code form of location
Interchange time	3 (82)	I	Minimum recommended interchange time from first location to second location
First Location	12 (85)	A	Short code form of location
Second Location	12 (97)	A	Short code form of location
Interchange time	3 (109)	I	Minimum recommended interchange time from first location to second location

ATCO-CIF Specification

5b. Cluster Interchange

Record Identity	2 (1)	A	QJ - Bus Cluster Interchange
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Cluster	12 (4)	A	Short code form of cluster
Interchange time	3 (16)	I	Minimum recommended interchange time within cluster
Cluster	12 (19)	A	Short code form of cluster
Interchange time	3 (31)	I	Minimum recommended interchange time within cluster
Cluster	12 (34)	A	Short code form of cluster
Interchange time	3 (46)	I	Minimum recommended interchange time within cluster
Cluster	12 (49)	A	Short code form of cluster
Interchange time	3 (61)	I	Minimum recommended interchange time within cluster
Cluster	12 (64)	A	Short code form of cluster
Interchange time	3 (76)	I	Minimum recommended interchange time within cluster
Cluster	12 (79)	A	Short code form of cluster
Interchange time	3 (91)	I	Minimum recommended interchange time within cluster
Cluster	12 (94)	A	Short code form of cluster
Interchange time	3 (106)	I	Minimum recommended interchange time within cluster

5c. Cluster Walk Links

Record Identity	2 (1)	A	QW - Cluster Walk Link
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Origin Cluster	12 (4)	A	Short code form of cluster
Destination Cluster	12 (16)	A	Short code form of cluster
Interchange time	3 (28)	I	Minimum travel time from origin cluster to destination cluster
Origin Cluster	12 (31)	A	Short code form of cluster
Destination Cluster	12 (43)	A	Short code form of cluster
Interchange time	3 (55)	I	Minimum travel time from origin cluster to destination cluster
Origin Cluster	12 (58)	A	Short code form of cluster
Destination Cluster	12 (70)	A	Short code form of cluster
Interchange time	3 (82)	I	Minimum travel time from origin cluster to destination cluster
Origin Cluster	12 (85)	A	Short code form of cluster
Destination Cluster	12 (97)	A	Short code form of cluster
Interchange time	3 (109)	I	Minimum travel time from origin cluster to destination cluster

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6. Vehicle Type Records	Indeterminate number of records		
Record Identity	2 (1)	A	QV - Vehicle Type
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Vehicle Type	8 (4)	A	User code for vehicle type
Vehicle long type	24 (12)	A	Description of vehicle type
7. Route Description Records	Indeterminate number of records		
Record identity	2 (1)	A	QD - Route Description
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Operator	4 (4)	A	Short code form of operator identifier
Route Number	4 (8)	A	Route number used as public identifier
Route Direction	1 (12)	A	User code for route direction
Route Description	68 (13)	A	Text description of route to distinguish one direction from another
8. Bank Holiday Dates	Indeterminate number of records		
Record identity	2 (1)	A	QH - Bank Holiday
Transaction Type	1 (3)	A	N = New D = Delete R = Revise
Date of bank holiday	8 (4)	I	Date of bank holiday (yyyymmdd)
9. Association Records	The two types of association record allow journeys on particular routes to be associated with each other, or allow two identified journeys to be associated. The form of association can be journey splits, journey joins, journey changes route number, journey is linked to a journey in another database (cross border) or journey has a guaranteed connection with another journey.		