

Common Transport Format Specification

**Traffic Data Structural Description for
Samtrafiken and its Owners**

Version 3.4

20180423

Approved in consultation with the owners of
Samtrafiken i Sverige AB

Preface

This edition of the Common Transport Format of Traffic Data for Samtrafiken and its Owners Version 3.0 replaces Version 2.0 which was approved by Samtrafiken's board in May 1993.

From 1993 until the present day the Transport Format has undergone three important phases of adjustments. These phases are as follows:

- 1993. The Transport Format entered into use for the transmission of traffic data from SJ and PTAs (Public Transport Authorities = THM) to Samtrafiken and within Samtrafiken
- 1997. The National Database (RDB) and the Journey Planner entered into service thus placing new demands on the Transport Format
- 2000. Tågkompaniet started to utilise traffic data from RDB in accordance with the Transport Format for their booking system "Tag Plats".

Stockholm 16 February 2001

Version	Updated	Author	Changes
	2006-05-02		36-posts, new fields for on-demand traffic.
	2006-12-30		Changed reading of 36-posts. See file structure 3.3.
	2007-02-24		New post type. 04 codes.
	2007-03-26		New field 01-post PUBLID.
	2008-05-27		New post type 32, operator data.
	2013-01-01	Bertil Gustavsson	Improved descriptions and readability
3.2	2014-01-28	Bertil Gustavsson	30-post positions 61-69 and 81-89 adjusted for non-swedish stops
3.3	2015-05-08	Bertil Gustavsson	30-post positions 61-69 and 81-89 adjusted. Position 97-100 transferred from 'Not used' into 'Resultatenhet' for SJ. 36-post altered term in position 64-66.
3.4	2018-04-23	Kevin Lindgren & Tobias Hägglund	08-post TIDZON fields renamed to TIDZONTYP and TIDZONTIM. 36-post field THMHPLNR renamed to THMHPLNRTH. Added information about which fields are mandatory for mandatory posts. Improved descriptions and readability.

Index

1. Introduction
2. General Information
3. Catalogue of Terms
4. Logical File Structure
5. Description of each Post Type
6. Types and Codes

1. Introduction

The target group for this document consists of all the companies that intend to exchange traffic information. The document has been prepared by Samtrafiken in collaboration with the PTAs, rail companies and most of the PTA's system suppliers. PTA in this document refers to all traffic companies in the roll of owning the traffic.

New additional posts/fields which not yet are properly decided are underlined and marked with yellow colour.

2. General Information

This section is intended for those who wish to order or develop export and/or import applications to/from other timetable databases.

Data is transferred to/from (RDB) via a transport document constructed in a format agreed by Samtrafiken's owners and Samtrafiken. The format enables data to be exchanged between other systems in different data environments and RDB.

The Transport Format is physically comprised of a data file in text format that can be exchanged via different types of media. Making a data delivery always requires complete information regarding a Company, PTA or suppliers.

2.1 Requirements of External Systems

An external system means a database system for timetable data at the Company, PTA or suppliers.

Certain requirements for the external system must be fulfilled if the system is to be able to send and retrieve data to/from RDB and to interpret the data correctly.

2.2 Requirements for Delivering Data to RDB

External systems must be able to write data in the Transport Format described below. Selection of data from the external system must be possible for a specified period limited by a start date as well as by a selection of lines.

Certain post types are obligatory, others optional. In certain cases, the information is obligatory in so far as a value must be given. If the external system lacks such information a default value must be stated.

2.3 Requirements for Retrieving Data from RDB

External systems must be able to read data in the Transport Format described below.

An important requirement for how the external system reads the Transport Format is that the system accepts all post types 00-99. This is important so that Samtrafiken can successively implement new post types in the Transport Format without requiring changes in the external systems.

A post type with data that is uninteresting for the external system or that contains an unknown post type can be ignored completely when reading data from the Transport Format.

The external system must interpret data in accordance with this document as far as is possible. Responsibility for use of data from RDB in the external system as regards imperfect interpretation of RDB data is the sole responsibility of the procurer of timetable data.

2.4 Calendar Handling

RDB can handle timetable data from different Company/PTAs or suppliers with differing traffic calendars and traffic periods. Traffic data from RDB is always to be supplied according to the international calendar.

2.5 Standard Values

Standard values for obligatory information must be applied in those cases where the information cannot be supplied by any other means. Standard values for different types of fields are shown in the Catalogue of Terms.

All **numerical fields** must be right justified. Any other characters + or - that may be needed must be fitted within the field width specified in the Catalogue of Terms. Values are to be zero filled.

If information is missing for a numeric field, then the value 0 must be given if no other standard value has been specified for the field in the Catalogue of Terms.

2.6 Text in Fields

All **alphanumeric fields** are to be left justified unless otherwise specified in the Catalogue of Terms for the field. The values are to be filled in to the full field width with space characters.

3. Catalogue of Terms

The Catalogue of Terms contains all formats and variants of terms with unique significance. The different terms' independence (i.e. object dependence) importance is apparent from this catalogue.

ANVSIGN	A6	User signature in the Transport Format
DAGKOMB	N7	Validity expressed in day types. This is weekdays without any holidays - Mondays through Sundays shall be given with values 1 or 0. Example: 1111111 all days of the week, 1110101 all days of the week except for Thursdays and Saturdays.
DATUM	N8	Date expressed in the form YYYYMMDD. (Year, Month, Day. Example: 20130627, which means June 27 th 2013).
DIREKT	A1	Value D denotes that a connection actually has through coaches into the other train. May be left blank.
DYGN	N2	Indicates if the trip continues into the next 24-hour period/date or not. First 24-hour day = 01. Second 24-hour day = 02. All days in this matter start 00.00.
FUNKKOD	N1	Function code in the Transport Format. Valid value = 0
HPLKOD	N1	Type of stop area in the Twins system.
HPLNAMN	A15	Special 15 character stop area name for the Petra booking system.
HPLNR	N6	Identifying number code for a local stop area within a Company or PTA or a national stop area within a specific country. In specific fields also used for geographic stop zone number.
HPLNR7	N7	Identifying number code for a national stop area within a specific country other than Sweden. Used only in record type 30.
HPLSIGN	A6	Signature/Token for a stop as defined in RDB.
INFOTEXT	A140	Free text.
KALENDER	A3	INT respective RTT. INT=international calendar (example: Good Friday=F (Friday)), RTT=RTT-calendar (example: Good Friday =SoH (Sundays and Holidays)).
KLOCKSLAG	N4	Value 0000-2400. Value>2400 is day 2
KNUTPUNKT	A1	Stop area at which a connection between two trips is allowed to be made.
KOD	A3	Codes as defined in RDB.
KODNAMN	A40	Code name as defined in RDB.
KOMMUNKOD	N2	Municipal code within a county.
KONTAKT	A30	Name of contact person
KOORD	N8	Coordinates (X or Y) according to the Swedish national network RT90 system.
KORTNAMN	A20	Short version of name.
LAND	A20	Country name for a LANDSKOD.
LANDSKOD	A3	Code defining a country according to RDB.
LGNAMN	??	Special name on a stop point
LGNR	??	Identifying number of a stop point
LINJEBET	A4	Announced line number. Can be blank. Deprecated
LINJENR	N4	Technical Line number within a Company/PTA
LÅNGNAMN	A40	Complete name of stop, company, attribute etc.

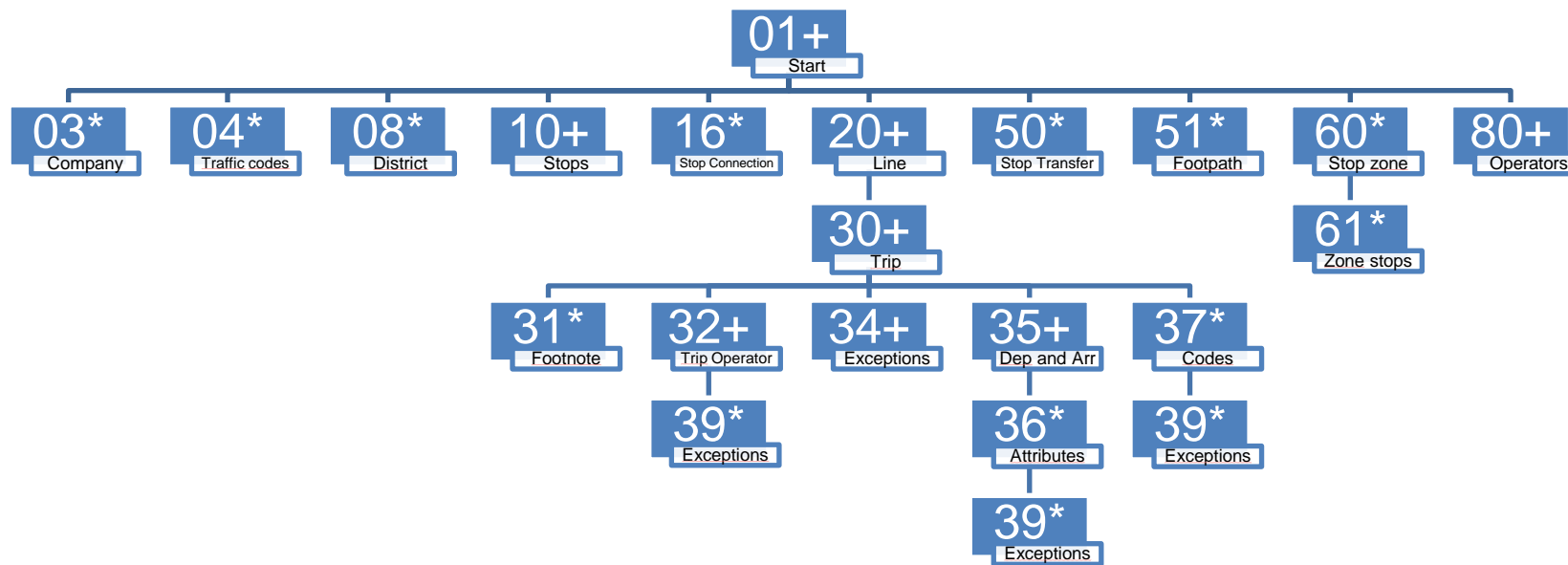
Samtrafiken i Sverige AB

LÄNSKOD	A2	County code. (In Sweden "LÄN").
LÖSENORD	A6	Password or other form of authority for communication
METER	N5	Number of meters (0-99999)
MINUTER	N3	Number of minutes (0-999)
NAMN	A30	Name of company, person or occurrence
OPERBET	A6	Code of operator who runs the traffic for a Company/PTA. Still not used in train files.
ORTNR	N6	District number according to RDB. Numbers 000001-999999
POSTTYP	N2	Type of post in the Transport Format
PRIORITET	A1	Degree of importance, priority, for interchange between two trips at this stop area.
PZONNR	??	The number defining a certain price zone.
PRODNR	N3	Company code as defined in RDB. Defines which tariff shall be used.
PUBLID	N4	ID-number for a specific selection of data, a "Publication".
PUBLNAMN	A30	Name of a specific selection of data, a "Publication".
RENHET	N4	Resultatenhet (SJ specific value).
RIKTNING	N1	Direction to or back. Value 1 or 2
SJRAPP	A4	Code according to announcement register as defined in RDB system.
SWKOORD	N7	Coordinates (X or Y) according to SWEREF99 system
TELENR	A20	Telephone number including -, ,,*,#. Also includes fax.
TF	A1	Denotes whether the accompanying information refer to a departure (F) or arrival (T).
THMNR	N3	Code number for Company/PTA. Value 001-999. Exception: In train files this field is used for Operators.
THMNRA	N4	Code number for Company/PTA. Value 0001-9999.
THMSIGN	A4	Code for Company/PTA according to RDB system.
TIMMAR	N2	Amount of hours (0-99)
TRAFMEDEL	A1	Vehicle class as defined in RDB.
TURBET	A6	Announced trip number. May (partially) consist of letters.
TURNR	N6	Technical trip number within a Company/PTA
TURNAMN	A30	Special announced name on a trip. Example: Orange Express, Skåneexpressen, Kustpilen, Mittåget etc.
TYP	A3	Type of code as defined in RDB
UICLAND	N2	UIC Numeric country code
UNDTYP	A1	Date exceptions for trip or different time zone. Value + or -.
UPHKOD	N1	Indicates whether boarding at a departure is allowed or not, as well as if disembarking at an arrival is allowed or not on a stop. Value 0/1.
UTGNR	N4	Version of a specific selection of data.
WGKOORD	N9	Coordinates (X or Y) according to WGS84 system

4 Logical File Structure

The internal structure and order of the posts in a transport file is shown in the diagram below.

+ Mandatory post. * Optional post.



5 Post description

RDB, as referred to below, means Samtrafiken's national traffic database ("Riksdatabasen" in Swedish).

+ Mandatory field.

Field	Term	Length	Position	Comment
-------	------	--------	----------	---------

01 - Start data

This post is mandatory. In the field LEVTHM the deliverer shall be given. The company number used must be defined in RDB. In the field URVALFRÅN the first date that the timetable applies from is given, while the field URVALTILL is the last date.

POSTTYP + <i>Not used</i>	POSTTYP	N2	1-2	'01'
			3	
ANVSIGN	ANVSIGN	A6	4-9	User signature (Not in use)
LÖSENORD	LÖSENORD	A6	10-15	User password (Not in use)
LEVTHM +	THMNR	N3	16-18	Deliverer. Number as defined in RDB. PTA 000 = Samtrafiken
URVALFRÅN +	DATUM	N8	19-26	First date of valid traffic data being included in the file. YYYYMMDD
URVALTILL +	DATUM	N8	27-34	Last date of valid traffic data being included in the file. YYYYMMDD
KALENDERTYP +	KALENDER	A3	35-37	INT or RTT. INT=international calendar (example: Good Friday=F (Friday)), RTT=RTT-calendar (example: Good Friday =SoH (Sundays and Holidays)).
PUBLID	PUBLID	N4	38-41	ID-number for a specific selection of data. Ex 0103
UTGNR	UTGNR	N4	42-45	Version of a specific selection of data. Ex 0012
PUBLNAMN	PUBLNAMN	A30	46-75	Name of a specific selection of data.
SKAPAD	DATUM+ KLOCKSLAG	N19	76-94	Date and time the file was created. Ex 2010-01-01_10.53.30

02 - Company information

Information regarding PTAs and other traffic companies.

POSTTYP <i>Not used</i>	POSTTYP	N2	1-2	'02'
			3	
THMNR	THMNR	N3	4-6	Company number as in the RDB system.
THMSIGN	THMSIGN	A4	7-10	Company signature.
THMNAMN	NAMN	A30	11-40	Name of Company.

Not used in files to RDB.

Samtrafiken i Sverige AB

THMBESADR	BESADR	A30	41-70	<i>Deprecated</i>
THMBREVADR	BREVADR	A30	71-100	<i>Deprecated</i>
THMPOSTNR	POSTNR	A6	101-106	<i>Deprecated</i>
THMPOSTADR	POSTADR	A20	107-126	<i>Deprecated</i>
THMLAND	LAND	A20	127-146	Country of Company
THMKONTAKT	KONTAKT	A30	147-176	Personal contact
THMTELENR	TELENR	A20	177-196	Telephone number
THMFAXNR	TELENR	A20	197-217	<i>Deprecated</i>

03 - List of Companies

Not used in files to RDB

Information regarding valid PTAs and other traffic companies numbers.

POSTTYP	POSTTYP	N2	1-2	'03'
<i>Not used</i>			3	
THMNR	THMNR	N3	4-6	Company number as in the RDB system.
THMSIGN	THMSIGN	A8	7-14	Company signature.
THMNAMN	NAMN	A30	15-80	Name of Company.

04 - Register of codes

Train plan codes and other codes to describe the character of different traffic types. (Train plan is a system for planning train traffic).

POSTTYP	POSTTYP	N2	1-2	'04'
<i>Not used</i>			3	
TDBTYP	TYP	A3	4-6	Type (category) of code in the RDB system.
TDBKOD	KOD	A3	7-9	Code in the RDB system
TDBKOD2	KOD	A3	10-12	<i>Deprecated</i>
KODNAMN	NAMN	A30	13-42	Name of code in the RDB system

08 - District data

District is defined as a geographical area that contains one or more stops. Not used in files to RDB.

POSTTYP	POSTTYP	N2	1-2	'08'
---------	---------	----	-----	------

Samtrafiken i Sverige AB

<i>Not used</i>				3	
LAND	LANDSKOD	N3	4-6		Country code as defined in RDB. (Sweden=074)
ORTNR	ORTNR	N6	7-12		District number as defined in RDB.
ORTLÅNGNAMN	LÅNGNAMN	A40	13-52		Long name for district
ORTKORT	KORTNAMN	A20	53-72		Short name for district
LÄN	LÄNSKOD	A2	73-74		County code
KOMMUN	KOMMUNKOD	N2	75-76		Municipality code
XKOORD	KOORD	N8	77-84		X coordinate according to Swedish RT90 system (Not mandatory)
YKOORD	KOORD	N8	85-92		Y coordinate according to Swedish RT90 system (Not mandatory)
ORTTYP	KOD	A3	93-95		Type of district as defined in RDB.
KOMMUN	KORTNAMN	A20	96-115		Municipality name
TIDSZONTYP	UNDTYP	A1	116		Time zone for the district compared to Sweden. More (+) or less (-) hours.
TIDSZONTIM	TIMMAR	N2	117-118		Time zone difference for the district compared to Sweden expressed in amount of hours.

10 - Stop area

Stop areas contains one or more stop points (often one stop point on each side of the road). Stop areas must be delivered for all the stops specified in transport format post 35. The stop's name must always be given including its full name, short name and, when used, signatures. Every Company/PTA enter here their own internal identification numbers for stops. If information regarding X and Y coordinates exists these must be given in accordance with the national coordinate system RT90.

POSTTYP +	POSTTYP	N2	1-2		'10'
<i>Not used</i>				3	
HPLTHMNR +	THMNR	N3	4-6		Same Company as the deliverer in 01-post who owns the definition of stop data in the following positions. 3-digit number.
HPLNR +	HPLNR	N6	7-12		Stop area number
HPLSIGN	HPLSIGN	A6	13-18		Stop area token
HPLKORTNAMN	KORTNAMN	A20	19-38		Short version of stop area name
HPLLÅNGNAMN +	LÅNGNAMN	A40	39-78		Long version of stop area name
LÄN	LÄNSKOD	A2	79-80		County code
KOMMUN +	KOMMUNKOD	N2	81-82		Municipality code. Certain Company/PTA systems deliver 3 or 4 digits token using position 79-82
XKOORD +	KOORD	N8	83-90		X coordinates for the stop area according to Swedish coordinate system RT90
YKOORD +	KOORD	N8	91-98		Y coordinates for the stop area according to Swedish coordinate system RT90
LIGGERIORT	ORTNR	N6	99-104		District number where this stop area is located.

Samtrafiken i Sverige AB

RIKSHPLNR	HPLNR	N6	105-110	Swedish national stop area number where this stop area is subordinated..
BYTESTID +	MINUTER	N3	111-113	Minimum time in minutes for general transfer between two trips at this stop area.
<i>Not used</i>			114-116	
BYTPRIORITET +	PRIORITET	A1	117	Transfer priority - degree of importance for itransfer between two trips at this stop area.
KNUTPUNKT	KNUTPUNKT	A1	118	Junction. Whether or not this stop area is allowed for transfer between two trips. Value: 0 or 1.
TMSTNNR	HPLNR	N6	119-124	Special stop area number for 15 character stop name for Petra booking system
TMSTNNAMN	HPLNAMN	A15	125-139	Special stop area name for 15 character stop name for Petra booking system
HPLINFONAMN	LÅNGNAMN	A40	140-179	Information name for this stop area
HPLTYP	HPLKOD	N1	180	Type of stop area in the Twins system

11 - Stop area synonymous names

Not in use.

This post type is currently not in use. Any data delivered in this post will be ignored.

POSTTYP	POSTTYP	N2	1-2	'11'
<i>Not used</i>			3	
SYNONYM	LÅNGNAMN	A40	4-43	Long alternative name to the name in previous 10-post.

16 - Stop area connection information – general connections

This post shows master stop connection times defined for a hub in the RDB. Sets the transfer times between different vehicle classes. See also 50 posts.

POSTTYP	POSTTYP	N2	1-2	'16'
<i>Not used</i>			3	
HPLTHMNR	THMNR	N3	4-6	Same Company as the deliverer in 01-post who owns the definition of stop data in the following positions. 3-digit number.
HPLNR	HPLNR	N6	7-12	Stop area number
FRÅNTRAFMEDEL	TRAFMEDEL	A1	13	Arriving vehicle class
TILLTRAFMEDEL	TRAFMEDEL	A1	14	Departing vehicle class
MINÖVGTID	MINUTER	N3	15-17	Minimum time in minutes for general transfer between two trips at this stop area, with regard to vehicle classes above.
<i>Not used</i>			18-20	
INVTID	MINUTER	N3	21-23	Maximum time in minutes a trip will wait in order to maintain a connection. Not in use.

17 - Stop area facilities

Facilities at a stop.

Not in use.

18 - Stop area facilities availability

See post type 17.

Not in use.

19 - Stop area other information

See post type 17.

Not in use.

20 - Next Line or Next Company and Line

Trips must be sorted on lines when included in the file. Each new line starts with a new 20-post. If lines from more than one Company/PTA is included, each new company (as well as new lines) must start with a new 20-post. Within a line one or more trips (30 posts) can be given.

POSTTYP + <i>Not used</i>	POSTTYP	N2	1-2 3	'20'
LINTHMNR +	THMNR	N3	4-6	Company number as in RDB. 3-digit number. May be other than deliverer in 01 post. (In train files this field is used for Operator)
LINJENR + <i>PRODUKTKOD</i>	LINJENR <i>KOD</i>	N4	7-10 <i>N3 11-13</i>	Technical line number. <i>Product code. Deprecated.</i>
<i>LINJEBET</i>	<i>LINJEBET</i>	<i>A4</i>	<i>14-17</i>	<i>Announced line number. Deprecated.</i>

30 - Trip identity

A trip refers to a defined segment where traffic is conducted in a specified time period. A trip can result in different trip variants depending on information regarding

- departure dates
- waiting at stop
- announced time

Samtrafiken i Sverige AB

- different comfort levels

This means that a trip in this post is the equivalent of a trip variant. Different trip variants may not be put together, or divided, unless all different values connected to each trip variant is handled correctly.

The validity of a trip is defined in the following positions in the 30-post
 DAGKOMB position 38-44 (Days of the week),
 FROMDATUM position 45-52 (Period starting date, this date shall be included) and
 TOMDATUM position 53-60 (Period ending date, this date shall also be included in the period).
 Exceptions from this validity information are given in 34 posts following each 30 post.

Product codes (PRODKOD) and booking codes (BOKKOD) are specified in the 30-post when the entire trip variant is applicable.

Product- and booking details for part of the trip as well as groups of carriages (in a train) are always found in post 37. On-demand information with regard to a trip is found in post 36.

Comfort code (KOMKOD) regards comfort level and encompasses the entire trip variant. Some are only included in 30-posts (like A, B, AB, C and W denoting different types of cars), while others are only included in 37-posts and a few may be included in both 30- and 37-posts. Such description will be supplied in each special case.

NB. Positions 61-69 and 81-89 have alternative use depending on the value: a) and c) Swedish stop signatures only. b) and d) Non-Swedish stop numbers only. This means either shall positions indicated by a) or the two b) be used. Also, either shall positions indicated by c) or the two d) be used.

POSTTYP +	POSTTYP	N2	1-2	'30'
<i>Not used</i>			3	
LINTHMNR +	THMNR	N3	4-6	Company number as in the previous 20-post. 3-digit number.
LINJENR +	LINJENR	N4	7-10	Technical line number. Part of the ID for a trip.
TURNR +	TURNR	N6	11-16	Technical trip number. Part of the ID for a trip.
TURRIKTNING +	RIKTNING	N1	17	Trip direction 1 or 2.
TURBET +	TURBET	A6	18-23	Announced trip number. May often actually be an announced line number if that is what the trip shall be announced under. Example: "1", "714X", "Orange".
TRAFMEDEL +	TRAFMEDEL	A1	24	Vehicle class as defined in RDB.
LINJEBET	LINJEBET	A4	25-28	Announced line number. Deprecated
PRODKOD	KOD	A3	29-31	Product code as defined in RDB.
BOKKOD	KOD	A3	32-34	Booking code as defined in RDB.
KOMKOD	KOD	A3	35-37	Comfort code as defined in RDB.
DAGKOMB +	DAGKOMB	N7	38-44	The days the trip runs. This is weekdays without any holidays - Mondays through Sundays shall be given with values 1 or 0. Example: 1111111 means all days of the week, 1110101 means all days of the week except for Thursdays and Saturdays.

Samtrafiken i Sverige AB

FROMDATUM +	DATUM	N8	45-52	Running days starts on this date, YYYYMMDD.
TOMDATUM +	DATUM	N8	53-60	Running days until and including this date, YYYYMMDD.
FRÅNHPL	HPLSIGN	A9	61-69	a) Only for Swedish stops. Stop area token as defined in IVU.pool. First departure for train trip.
FRÅNHPL	UICLAND	N2	61-62	b) Only for non-Swedish stops. UIC country number. First departure for train trip.
FRÅNHPL	HPLNR7	N7	63-69	b) Only for non-Swedish stops. Stop area number. First departure for train trip.
<i>Not used</i>			70-80	
TILLHPL	HPLSIGN	A9	81-89	c) Only for Swedish stops. Stop area token as defined in IVU.pool. Last arrival for train trip.
TILLHPL	UICLAND	N2	81-82	d) Only for non-Swedish stops. UIC country number. Last arrival for train trip.
TILLHPL	HPLNR7	N7	83-89	d) Only for non-Swedish stops. Stop area number. Last arrival for train trip.
<i>Not used</i>			90-96	
RENHET	RENHET	N4	97-100	Resultatenhet (SJ specific value)
PRODNR	PRODNR	N3	101-103	Company code as defined in RDB. Indicates which tariff shall be used.
TURNAMN	TURNAMN	A30	104-133	Special announced name on a trip. Example: Orange Express
<i>Not used</i>			134-141	

a), b), c), d), see explanation above.

31 - Trips general footnotes post

Footnotes for the trip variant are available here in free text format. 31-post shall be included directly after concerned 30-post. Type of footnote (FOTNOTTYP) is always 'TUR'.

The information is used only for printed line timetables and for line timetables published on the Internet.

POSTTYP	POSTTYP	N2	1-2	'31'
<i>Not used</i>			3	
FOTNOTTYP	TYP	A3	4-6	Value is always 'TUR'
FOTNOT	INFOTEXT	A140	7-146	Free text applying to the entire trip.

32 - Trip Operator

Not used in train files

Shows details of which operator is conducting each trip. Two or more 32-posts can be used to show different operators operating the trip in different week days or different time periods. Company/PTA number in this post refer to this Company's/PTA's identification of the operator.

The key is OPERBET. In the 80 post the code is defined with details of the operator referred to by the OPERBET-field.

Samtrafiken i Sverige AB

POSTTYP + <i>Not used</i>	POSTTYP	N2	1-2 3	'32'
THMNR +	THMNR	N3	4-6	Company number as in the previous 20-post. 3-digit number. This refers to the company having the code definition of this post's OPERBET.
OPERBET +	OPERBET	A6	7-12	The Company's/PTA's code for the Operator. Example 'REIBT', '2X5f1', 'SWE32'.
DAGKOMB +	DAGKOMB	N7	13-19	The days of the week the operator operates. This is weekdays without any holidays - Mondays through Sundays shall be given with values 1 or 0. Example: 1111111 means all days of the week, 1110101 means all days of the week except for Thursdays and Saturdays.
FROMDATUM +	DATUM	N8	20-27	Validity for the weekdays above starts on this date, YYYYMMDD.
TOMDATUM +	DATUM	N8	28-35	Validity for the weekdays above, lasting until and includes this date, YYYYMMDD.

34 - Trip - timetable period exceptions

Exceptions from the validity given in the previous 30 post, depending on either cancellation of the trip on certain dates, or extra operating dates not included in the validity in the previous 30-post, these are defined in one or more 34-posts.

Exceptions must be within the 30 post's period (not before the start date or after the end date as defined by FROMDATUM and TILLDATUM).

The type of adjustment, cancelled or extra, is defined in position 4 TURUNDTYP where

“+” means that the trip operates on this day or for this period too.

“-“ means that the trip is cancelled on this day or for this period.

The exception dates are given in position 5-12 FROMDATUM (Period starting date) and in position 13-20 TOMDATUM (Period ending date).

Example: An adjustment of only one date is written: 2012060120120601 (same date June 1st 2012 in both positions. A period is written for instance 2012060120130117 (meaning June 1st 2012 up to and including January 17th 2013).

The positions 21-38 are intended for the stop sequence concerned in the case not all of the stop sequence is affected by the adjustment. However, these positions are not yet in use since the proper interpretation of the data can get rather complicated.

POSTTYP + <i>Not used</i>	POSTTYP	N2	1-2 3	'34'
TURUNDTYP +	UNDTYP	A1	4	Value '+' indicates a trip runs extra date(s), value '-' indicates the trip is cancelled a certain date(s).
FROMDATUM +	DATUM	N8	5-12	Exception from the trips running days starts on this date, YYYYMMDD.
TOMDATUM +	DATUM	N8	13-20	Exception from the trips running days until and including this date, YYYYMMDD.
FRÅNHPLTHM	THMNR	N3	21-23	<i>Currently not in use.</i> The owner/identifier of the stop number in next position.
FRÅNHPLNR	HPLNR	N6	24-29	<i>Currently not in use.</i> The stop area where the exception validity starts.
TILLHPLTHM	THMNR	N3	30-32	<i>Currently not in use.</i> The owner/identifier of the stop number in next position.
TILLHPLNR	HPLNR	N6	33-38	<i>Currently not in use.</i> The last stop area where the exception is valid.

35 - Trip departures and arrivals

All mandatory data concerning each departure or arrival of a trip is given in 35-posts.

A departure (position 4-25) is written:

(DYGN) refers to the 24-hour day and is a relative measure from the first departure. It means that first 24-hour day gets value '01'. If the trip continues into the next 24-hour day such departures or arrival gets the value (02) after midnight.

(KLOCKSLAG) is the departure or arrival time in hours and minutes (ex. 1758)

(THMNR) is the Company/PTA (to define who's stop area it is) (ex. 123)

(HPLNR) is the Company's/PTA's (from above) stop area where the trip stops. (ex. 001234)

(UPHKOD) indicates if boarding/disembarking is allowed (ex. 1), or not allowed (ex. 0)

(TURBET) is announced trip number for this section of the trip. Using this field, it is possible for the announced trip number to vary along the route.

The same set of data is written also on the same row for the first arrival (but in positions 26-47) after the departure above.

(TURNR) Technical trip number is added for the departure in positions (56-61) and for the trip arrival in position (62-67). Not yet in use.

There is two different philosophies used in different situations regarding the handling of "DYGN" in combination with "KLOCKSLAG". The alternative way to the one described below is when "DYGN" is always "01" and "KLOCKSLAG" uses values above 2400 instead. Please contact Samtrafiken to find out how to best represent your traffic.

POSTTYP +	POSTTYP	N2	1-2	'35 '
<i>Not used</i>			3	
AVGDYGN +	DYGN	N2	4-5	Concerns this departure. Indicates if the trip continues into the next 24-hour period/date or not. First 24-hour day = 01. Second 24-hour day = 02. All days in this matter start 00.00.
AVGTID +	KLOCKSLAG	N4	6-9	Time of departure from this stop area. Value 0000-2400.
AVGHPLTHM +	THMNR	N3	10-12	The Company/owner/identifier of the stop area number in next position. Must be the same as in the previous 20-post. 3 digit number.
AVGHPLNR +	HPLNR	N6	13-18	The stop area number for the trips departures. Unless it is the trips first departure this stop area number must be the same as the previous 35-post stop area number for arrival.
AVGUPHKOD +	UPHKOD	N1	19	0=boarding not allowed, 1=boarding allowed for the stop in position 13-18.
AVGTURBET +	TURBET	A6	20-25	Announced trip number for the departure. May contain letters.
ANKDYGN +	DYGN	N2	26-27	Concerns this arrival. Indicates if the trip continues into the next 24-hour period/date or not. First 24-hour day = 01. Second 24-hour day = 02. All days in this matter start 00.00.
ANKTID +	KLOCKSLAG	N4	28-31	Time of arrival to this stop area. Value 0000-2400.
ANKHPLTHM +	THMNR	N3	32-34	The Company/owner/identifier of the stop area number in next position. Must be the same as in the previous 20-post. 3 digit number.

Samtrafiken i Sverige AB

ANKHPLNR +	HPLNR	N6	35-40	The stop area number for the trips arrivals. Unless it is the trips last arrival this stop area number must be the same as the next 35-post stop area number for departure. 0=disembarking not allowed, 1=disembarking allowed for the stop in position 35-40. Announced trip number for the arrival. May contain letters.
ANKUPHKOD +	UPHKOD	N1	41	
ANKTURBET +	TURBET	A6	42-47	
<i>Not used</i>			48-55	

36 - Trip departure's and arrival's footnotes

This post belongs to a stop area specified in the closest post 35 above it and contains attribute information referring to either, the arrival to, or the departure from, this stop.

The 36-post is used for different purposes depending on the combination of position 5-7 TYP (type) and position 8-10 KOD (code) as follows:

		Type (5-7)	Code (8-10)
1.	- Free text	FOT	FOT
2.	- On-demand information	FOT	BES
3a.	- Connections	TID	ANS
3b.		TID	BRU
3c.		TID	AND
3d.		TID	BRD

The 36-post fields used for the 6 cases above as follows:

Case	Positions
1.	1-10, 120-377
2.	1-10, 11-41, 87-93, 120-377 (either 11-16 or 11-12+17-21 are mandatory)
3.	1-10, 64-109, 372-377 (77 is optional)

Fields not explicitly specified as mandatory or optional above are mandatory.

The validity of the attribute in a 36-post is defined by (when used according to above) DAGKOMB position 87-93 (Days of the week), FROMDATUM position 94-101 (Period starting date, this date shall be included) and TOMDATUM position 102-109 (Period ending date, this date shall be included).

On-demand trips ("BES" identifier) will be described separately.

Each 36 post in a transport format file shall be entered on its own with an own calendar validity for instance in an importing system (i.e. RDB). 36 posts are only allowed to be merged in an importing system (i.e. RDB) if they belong to the same trip and are identical except for the stop area value they belong to in the transport format import file. In that case they are only allowed to be merged if the same 36-post applies to all stops in a stop area sequence, for instance B, C, D, E and F, which would turn into B-F.

Samtrafiken i Sverige AB

POSTTYP	POSTTYP	N2	1-2	'36'
<i>Not used</i>			3	
TILLFRÅN	TF	A1	4	F defines that this 36 post attribute belongs to the departure stop in position 13-18 in the previous 35 post. T defines that this 36 post attribute belongs to the arrival stop given in position 35-40 in the previous 35 post. The value can be F or T only.
TYP	TYP	A3	5-7	Values: FOT or TID. See explanation above.
KOD	KOD	A3	8-10	Values: FOT, BES, ANS, BRU, AND or BRD. See explanation above.
FNOTDYGN	DYGN	N2	11-12	On-demand: Number of 24-hour periods prior to departure time advance bookings have to be done.
FOTNOTKLS	KLOCKSLAG	N4	13-16	Time or 0000. On-demand: Time when advance bookings have to be done.
FNOTTIM	TIMMAR	N2	17-18	Hours or 00. On-demand: Number of hours before an advance booking has to be done.
FNOTMIN	MINUTER	N3	19-21	Minutes or 000. On-demand: Number of minutes before an advance booking has to be done.
FNOTTELENR	TELENR	A20	22-41	Telephone number. On-demand: Telephone number the traveller shall call in order to make an advance booking.
<i>Not used</i>			42-63	
LNJTHMNR	PRODNR	N3	64-66	Connections: Identifying the Company/PTA the other trip belongs to. 3 digit number.
LNJNR	LINJENR	N4	67-70	Connections: Identifying the other trip's technical line number.
TURNR	TURNR	N6	71-76	Connections: Identifying the other trip's technical trip number.
TRAFMEDEL	TRAFMEDEL	A1	77	Vehicle class. Used here with certain restrictions as redundant/contradictory information must be avoided.
THMNR	THMNR	N3	78-80	The Company/owner/identifier of the stop area number in the next position. Must be the same as in the previous 20-post. 3 digit number.
THMHPLNR	HPLNR	N6	81-86	The stop area where the other trip calls. May in the future be different from the stop in position 372-377. This difference is supported by Hafas (travel planner engine of Resrobot). Currently is an intermediate situation when both fields are used and the same value is written in both.
DAGKOMB	DAGKOMB	N7	87-93	The weekdays this 36-post is valid.
FROMDATUM	DATUM	N8	94-101	The first date this 36-post is valid.
TOMDATUM	DATUM	N8	102-109	The last date this 36-post is valid.
DIREKT	DIREKT	A1	110	Value D denotes that a connection actually has through coaches into the other train.
AHPLTHMNR	THMNR	N3	111-113	The Company/owner/identifier of the stop area number in next position. Must be the same as in the previous 20-post. 3 digit number.
AHPLNR	HPLNR	N6	114-119	Swedish train plan code if a trip actually calls at another stop. (Example: A replacement bus may perhaps not call at the train station). Rarely used.
FOTNOTSTEXT	INFOTEXT	A252	120-371	Free text.
THMHPLNRTH	HPLNR	N6	372-377	The stop area value in previous 35-post this 36-post belongs to, confirming the T/F indication above.

37 - Trip qualities and characteristics

Train plan codes (according to announcement register and as defined in RDB) such as products, booking and comfort codes, as well as other codes which describe a certain trip are detailed in this post.

The codes will be defined in a special document, see also chapter 6.

Announcing reports REST and SERV are always placed in this post.

KVAR and LÄGG are connected to sleeping car. KVAR defines "Sleeping place available from xx.xx" and LÄGG "sleeping place available until xx.xx". (NB not used for couchettes).

POSTTYP	POSTTYP	N2	1-2	'37'
Not used			3	
FRÅNDYGN	DYGN	N1	4	Which of the trip's 24 hour periods the 37 post starts to be valid. 01 or 02.
FRÅNKL	KLOCKSLAG	N4	5-8	The time the 37 post starts to be valid.
FRÅNHPLTHM	THMNR	N3	9-11	The Company/owner/identifier of the stop area number in next position. Must be the same as in the previous 20 post. 3 digit number.
FRÅNHPLNR	HPLNR	N6	12-17	The stop area number where the 37 post starts to be valid.
TILLDYGN	DYGN	N1	18	The trip's 24-hour period the 37 post ends to be valid. 01 or 02.
TILLKL	KLOCKSLAG	N4	19-22	The time the 37-post ends to be valid.
TILLHPLTHM	THMNR	N3	23-25	The Company/owner/identifier of the stop area number in next position. Must be the same as in the previous 20 post. 3 digit number.
TILLHPLNR	HPLNR	N6	26-31	The last stop area number where the 37-post is valid.
SJRAPP	SJRAPP	A4	32-35	Report according to announcement register
TYP	TYP	A3	36-38	Type of code as defined in RDB system.
KOD	KOD	A3	39-41	Train plan codes as defined in RDB system.
DAGKOMB	DAGKOMB	N7	42-48	The weekdays this 37 post is valid.
FROMDATUM	DATUM	N8	49-56	The first date this 37 post is valid.
TOMDATUM	DATUM	N8	57-64	The last date this 37 post is valid.

38 - Red departures

Deprecated

39 - Timetable period post service exception

If the dates defined in the 32, 36 or 37 posts shall be adjusted they are defined in 39 posts. Modifications are either cancellations or extra validity weekdays or periods. Exceptions must be within the 32, 36 or 37 post's period.

A 39 post can only exist directly after the 32, 3- or 37 post they belong to.

The type of adjustment, cancelled or extra, is defined in position 4 TURUNDTYP where

“+” means the attribute validity is extra this day or for this period.

“-“ means the attribute validity is excepted for this day or for this period.

Dates concerned are entered in position 5-12 FROMDATUM (Period starting date) and in position 13-20 TOMDATUM (Period ending date).

Example: An adjustment of only one date is written: 2012060120120601 (same date June 1st 2012 in both positions. A period is written for instance 2012060120130117 (meaning June 1st 2012 up to and including January 17th 2013.

The positions 21-38 are intended for the stop area sequence concerned if not all of the stop area sequence is concerned of the adjustment. However, these positions are not yet in use since proper interpretation of the data may get rather complicated.

POSTTYP	POSTTYP	N2	1-2	'39'
<i>Not used</i>			3	
TURUNDTYP	UNDTYP	A1	4	Value '+' indicates 32-, 36- or 37-post is valid extra date(s), value '-' indicates 32-, 36- or 37-post is cancelled certain date(s).
FROMDATUM	DATUM	N8	5-12	The first date the 32-, 36- or 37-post is valid/cancelled.
TOMDATUM	DATUM	N8	13-20	The last date the 32-, 36- or 37-post is valid/cancelled.
FRÅNHPLTHM	THMNR	N3	21-23	<i>Currently not in use.</i> The owner/identifier of the stop number in next position.
FRÅNHPLNR	HPLNR	N6	24-29	<i>Currently not in use.</i> The stop area where the exception value starts to be valid.
TILLHPLTHM	THMNR	N3	30-32	<i>Currently not in use.</i> The owner/identifier of the stop number in next position.
TILLHPLNR	HPLNR	N6	33-38	<i>Currently not in use.</i> The last stop area where the exception value is valid.

50 – Transfer time for traffic at a stop area

This post refers to stop areas within a district and can be utilised to create connections between two trips. One stop may be entered in two or more 50 post in order to describe more complex rules for a stop area.

POSTTYP	POSTTYP	N2	1-2	'50'
<i>Not used</i>			3	
HPLTHMNR	THMNR	N3	4-6	Same Company/PTA as the deliverer in 01-post who owns the definition of stop data in the following positions. 3-digit number.
KNUTHPLNR	HPLNR	N6	7-12	Stop area number.
FRÅNTHMNR	THMNR	N3	13-15	Arriving company. May not be 0 (zero)
TILLTHMNR	THMNR	N3	16-18	Departing company. May not be 0 (zero)

Samtrafiken i Sverige AB

FRÅNTRAFME	TRAFMEDEL	A1	19	Arriving vehicle class
TILLTRAFME	TRAFMEDEL	A1	20	Departing vehicle class
FRÅNPRODUKT	KOD	A3	21-23	Arriving product
TILLPRODUKT	KOD	A3	24-26	Departing product
MINOVGTID	MINUTER	N3	27-29	Minimum time in minutes transfer between two trips at this stop area with regard to the different values.

51 - Transfer time for traffic between two stop areas in one district

Refers to links between two stop areas.

POSTTYP	POSTTYP	N2	1-2	'51'
<i>Not used</i>			3	
HPLTHMNR	THMNR	N3	4-6	Same Company as the deliverer in 01-post who owns the definition of stop data in the following positions. 3-digit number.
FRÅNHPLNR	HPLNR	N6	7-12	Starting stop area number (where the arriving trip calls).
HPLTHMNR	THMNR	N3	13-15	Same Company as the deliverer in 01-post who owns the definition of stop data in the following positions. 3-digit number.
TILLHPLNR	HPLNR	N6	16-21	Ending stop area number (where departing trip leaves).
MINOVGTID	MINUTER	N3	22-24	Minimum time in minutes for transfers between the trips at the two different stop areas with regard to the different values in this post.
<i>Not used.</i>			25-27	
FLYTTSÅTT	TRAFMEDEL	A1	28	Way of transfer between the stops. G = walking link, T = Taxi etcetera. See code list.
AVSTÅND	METER	N5	29-33	Distance between the stop areas.
FRÅNDATUM	DATUM	N8	34-41	Valid from this date YYYYMMDD
TILLDATUM	DATUM	N8	42-49	Valid until and including this date YYYYMMDD

60 - Stop zone

Name and definition of a stop area zone.

POSTTYP	POSTTYP	N2	1-2	'60'
<i>Not used</i>			3	
HPLTHMNR	THMNR	N3	4-6	For national stop area zones in Sweden '074'
HPLZONNR	HPLNR	N6	7-12	

ZONNAMN	NAMN	A30	13-42	Written with upper case characters
---------	------	-----	-------	------------------------------------

61 – Stop areas included in a stop zone

Listing of the stop areas that form the stop zone in the 60 post. Repeated for every stop that is included in the same 60 post.

POSTTYP	POSTTYP	N2	1-2	'61'
<i>Not used</i>			3	
HPLTHMNR	THMNR	N3	4-6	For national stop areas in Sweden '074'
RHPLNR	HPLNR	N6	7-12	The stop area number included in a zone.

80 - Operator data

This post contains details for each Operator as defined in the 32-posts by each Company/PTA. The key is OPERBET.

POSTTYP +	POSTTYP	N2	1-2	'80'
<i>Not used</i>			3	
THMNR +	THMNR	N3	4-6	Company number for the operator as defined in RDB
OPERBET +	OPERBET	A6	7-12	Code for the operator as defined in RDB.
OPERNAMN +	LÅNGNAMN	A40	13-52	Company name for the operator as defined in RDB
<i>Not used</i>			53-168	
OPERLAND	LAND	A20	169-188	Country where the operator is located.
OPERTELE +	TELENR	A20	189-208	The telephone number traffic staff use when there is a traffic disturbance.

6. Types and Codes

In the Transport Format type (TYP) and code (KOD) form part of the different posts. These values undergo constant change due to changes in offerings from the different PTA. The actual types and codes are identified in the RDB, which gives details of the included products, vehicle classes, means of transport, accessibility, booking rules and comfort codes etc.