

2.1 Identification of objects

The identification of objects is based on the recommendations given in Part 4 of the NeTEx standard (EPIP profile), which defines the identifier structure for objects as follows:

(epd): [country code] : ([local code]) : [object type] (_ [epip-type]) : [technical-identifier] : [ID provider for shared IDs]

where:

- (epd) is a prefix requested by the EPIP profile
- [country-code] is the ISO 3166-1 code (2 characters, capitalised) of the country of the [local-code].
- [local-code] is a code uniquely identifying the locality or the provider within the country (may be a region code like the European NUTS code, an authority code, etc.). The European NUTS code is recommended here. However, this code is not mandatory if the other elements make the code unique (but a placeholder colon ":" shall still be present).
- [object type] is the NeTEx element type (ServiceJourney, PassengerStopAssignment, Line, etc. using the exact XML tag name in UpperCamelCase without a space) and is included to avoid any collision if the same [technical-identifier] values are used for different types of object.
- [epip type] is an optional qualifier for the [object type] used to allow a common [technical-identifier] to be used for closely related objects of the same element type. In the EPIP version 1.0 it is used just to distinguish monomodal and general instances of StopPlace, the resulting qualified [object-type] will be StopPlace-general or StopPlace-monomodal instead of StopPlace (see 6.2-Stop Place). (Note that in future profiles and profile versions, additional values are expected to be added.)
- [technical-identifier] is a technical identifier for the object, it can be whatever code the producer system prefers, but shall satisfy the xml NCName data type (i.e. consist of upper-case or lower case non-accented characters, numbers, "-" or "_") but shall be unique for the object within the other identifier parameters and codespace and be stable (that is, persistent; a given object shall not change its identifier).[ID-provider-for-

shared-IDs] is used to provide a reference to the ID provider (reference data system) when there is one (in effect the real CODESPACE!). When this non-mandatory field is present, it ensures the uniqueness of the [technical-identifier].

- All the ":" separating characters are mandatory (even if a field is empty) and are contiguous without spaces.

The IDs for the different PT objects in South Tyrol will have the following structure. All IDs have in common [country code] and [local code], which are [it] and [ITH10] (i.e. the NUTS code of South Tyrol¹ respectively). For simplicity reasons, just the most important objects are reported here; other of minor importance do however reflect this structure.

These new guidelines do not apply for IDs related to PT objects (e.g., stops) that are outside Italy, for which a GlobalID already exist. In this case, the current IDs are going to be kept. On the other side, these guidelines also temporarily apply to PT objects that are outside South Tyrol but still in Italy. In this case, an alternative [local code] may be used (e.g. a stop in another Italian region). Since the proposed PT objects identification rules have been adopted in the version 1.6 of the Italian NeTex profile, the reference PT authorities / PTOs will need to implement similar conventions. In case GlobalIDs for PT objects that are outside South Tyrol but still in Italy will be defined by third parties and are made available, for example through the Italian NAP, these should be imported / configured accordingly in DIVA.

The detailed specifications related to the different PT objects are provided in the following tables.

PT object	ID structure
stopPlace	<p>(epd):it:ITH10:StopPlace: [technical-identifier]</p> <p>where: [technical-identifier] = [municipal_code]-stopPlaceID</p> <p>The [municipal_code] univocally represents the municipality in which the stop place is located. The reference value is the ISTAT code of the municipality. The stopPlaceID is an integer randomly defined by the master tool DIVA.</p> <p><u>Example</u>: Bolzano, Stazione (ISTAT code = 021008)</p> <p>(epd):it:ITH10:StopPlace:021008-468</p>

Table 1: Specification of the generation of IDs for stopPlace object.

¹ https://en.wikipedia.org/wiki/NUTS_statistical_regions_of_Italy

PT object	ID structure
scheduledStopPoint	<p>(epd):it:ITH10:ScheduledStopPoint:[municipal_code]:scheduledStopPointID</p> <p>The ID of a scheduledStopPoint follows the same rules as for stopPlace. The definition of scheduledStopPointID is a simplification of the complex three-layer model with which stops are represented in DIVA. For simplicity reasons, the intermediate level related to the stop areas are omitted. The scheduledStopPoint is therefore represented only by the ID of the stopPlace the stopPoint belongs to and a specific ID of the point. In other words:</p> $\text{scheduledStopPointID} = \text{stopPlaceID} - \text{PointID}$ <p>where PointID is an integer randomly defined by the master tool DIVA, which ensures the uniqueness of the scheduledStopPoint within the stopPlace.</p> <p><u>Example:</u> stopPlaceID = 468, PointID = 1</p> <p>(epd):it:ITH10:ScheduledStopPoint:021008-468-1</p>

Table 2: Specification of the generation of IDs for scheduledStopPoint object.

PT object	ID structure
lines	<p>(epd):it:ITH10:Line:LineID</p> <p>The LineID is structured as follows:</p> $\text{LineID} = \text{"operationalBranchID"} - \text{"LineNumber"}$ <p>where operationalBranchID is a two-digit integer indicating the reference operational branch and LineNumber is a four-digit string composed by the LineNumber in DIVA and the one-digit suffix in DIVA (if not set a "_" is present).</p> <p><u>Example:</u> Line 110, operationalBranch 01</p> <p>(epd):it:ITH10:Line:01-110_</p> <p><u>Example:</u> Line N120, operationalBranch 80</p> <p>(epd):it:ITH10:Line:80-120N</p> <p><u>Example:</u> Line 420.3, operationalBranch 89</p> <p>(epd):it:ITH10:Line:89-4203</p> <p><u>Note:</u> As defined the LineID just identifies a single line and not the different versions it can have, which could be associated to different</p>

PT object	ID structure
	timetables.

Table 3: Specification of the generation of IDs for lines object.

PT object	ID structure
tariffZones	(epd):it:ITH10:TariffZone:ZoneID where ZoneID is an integer defined in the master tool DIVA, which ensures the uniqueness of the number of the tariff zone within the system.

Table 4: Specification of the generation of IDs for tariffZones object.

PT object	ID structure
ServiceJourney	(epd):it:ITH10:ServiceJourney:ServiceJourneyID The ServiceJourneyID is structured as follows: ServiceJourneyID = "operationalBranchID-"LineNumber"- "-"TripKey"- "DayType" where operationalBranchID is a two-digit integer indicating the reference operational branch, LineNumber is a four-digit string composed by the LineNumber in DIVA and the one-digit suffix in DIVA (if not set a "_" is present), TripKey is a unique value for the journey within a line version, DayType indicates the reference day type. <u>Example:</u> operationalBranch 01, Line Number 110, TripKey 1424, DayType T2 (epd):it:ITH10:ServiceJourney:01-110-1424-T2 <u>Example:</u> operationalBranch 80, Line Number 920N, TripKey 110, DayType TA_NL (epd):it:ITH10:ServiceJourney:80-920N-110-TA

Table 5: Specification of the generation of IDs for ServiceJourney object.