Language and terminology in Real Time Information systems

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1　Introduction

1.1　The issue

1.1.1　In the context of public transport, **real time information** (RTI) systems are those systems and services which enable passengers to have current information on the operation of their expected service – rather than merely hoping that the planned timetable is being met.

1.1.2　The most widespread and familiar form of RTI is the "countdown" service, in which an at-stop display indicates the number of minutes until the next numbered service vehicle will arrive. There are increasingly other options for providing RTI, through services such as call centres and smartphone apps; but evidence from passenger groups such as Transport Focus suggests strongly that public-realm signage will remain a crucial part of the RTI context for a long time to come.

1.1.3　Signage technology, however, is not static, and neither is the technology for the central computer systems that drive sign displays. As innovation opens up new opportunities, people are starting to explore new ways of presenting RTI on signs. Some of these are more successful than others, and there is a need to capture and promulgate good practice in this area. A common approach would also ensure that bus users around the country would have services that looked and felt similar.

1.1.4　In 2016 RTIG established a Working Group to consider these issues. It was quickly realised that the challenge has several dimensions, and separate advice was required on issues such as:

- The language and terminology used on RTI signage;
- How RTI data can be structured so that the information available through separate channels is kept consistent;
- How best to use newer sign technologies that enable full-screen displays;
- What kind of information bus users would best benefit from on signs.

1.1.5　The present document addresses the first of these: language and terminology. Other documents are currently in development.

1.2　Variations and interpretation

1.2.1　The principal purpose of this document is to guide public information so that **the terms used are both relevant and readily comprehensible to the passengers to which they pertain**.

1.2.2　In developing and interpreting this document, therefore, users will need to have regard to the full context of their engagement with passengers. In particular most but not all passengers will be familiar with local landmarks, geography and (to an extent) terminology; a few but probably not many will understand some industry "technical terms", like "timing point"; and there will be a range of information priorities, for example for off-peak passengers, wheelchair passengers, or visually impaired passengers.

1.2.3　There is no simple resolution of this issue. While standardised terminology is generally good, if adopting it would cause significant challenges for local travellers who are familiar with the current offer, then it may be better not to do so. Local decision will therefore be necessary in all of these areas as to where terms are sufficiently useful or accepted to adopt, even at the risk of confusing some passengers.

1.2.4   However, in taking these decisions, users should be aware of wider needs for coherence:

– It is important that the various different sources of local bus information (whether at-stop sign, web service, mobile app etc) should be consistent in the terms they use, as well as in the accuracy of their content.

– It may not be realistic for national (or even global) services to vary their language usage just to comply with long-standing local customs.

– Non-standard terms may be particularly confusing for newcomers to the area.

1.2.5   Some terms are complex or problematic for specific reasons, either cognitive or technical; these are highlighted in the text. Where such terms, or new terms, are to be used, system owners (and developers) should assure themselves that they are no introducing a potential confusion, and risking trust in the service – for example, by public consultation or option trialling.

1.3   Scope

1.3.1   The primary scope of this document (and others within the same series) is fixed signage, located in the public realm and operated by local transport authorities, for the express purpose of providing RTIG. That includes at-stop signs but also includes signs in hubs (bus stations, rail interchanges etc) as well as "city-centre" signage on shopping streets, in malls etc.

1.3.2   By extension, this document also covers signage which is embedded into third party signs (eg as a virtual panel on a multimedia display) or services (eg as a panel in a third party web page). By further extension, it covers information which is presented by third party services (eg commercial apps).

1.3.3   The status of this document is **published**.

1.4   Acknowledgments

1.4.1   RTIG is grateful to the members of its Information Presentation Working Group for contributing to the construction and validation of this document.

2 Recommended usage

2.1 Introduction

2.1.1 The recommendations in this section are presented in sections relating primarily to:

- Basic terms (section 2.2);
- Routes (section 2.3);
- Timetables (section 2.4);
- Infrastructure, ie the fixed physical elements involved in bus services (section 2.5);
- Current operations, ie the "live" situation (section 2.6);
- Information facilities, ie the kind of thing that a sign might display as distinct from the meaning intended (section 2.7);
- Fares and ticketing (section 2.8).

A final section (section 2.9) mentions some terms which are *not* recommended, or offer particular difficulties.

2.1.2 The structure adopted is for presentational convenience only: many of the terms will have broader relevance for the provision of public transport information.

2.2 Basic terms

Term/concept	Notes
Operator	Official term for the company that runs the service. Point to whom enquiries, complaints etc should be addressed.
Bus	Physical vehicle. "The 11:37" is not a bus, it's a service provided by a bus.
Arrive/depart	Preferred terms for the bus actions at a stop. Used to introduce a time (scheduled or real time prediction, or both).
Board/alight	Preferred terms for the passenger actions for a bus.
Display	Refers both to the sign that shows information, and to the information shown on the sign. An ambiguity that seems to cause no problems.

2.3 Bus services: routes

Term/concept	Notes
Service	Published service number (or name), covering a defined set of journeys. Should be consistently used in all publicly accessible information.
	Normally equivalent to Transmodel term "Line". Distinct from **Route**. However there are variations in usage – for instance TfL has always used the term "Route" for this concept.
Route	The physical path operated by a service, representable as a line on a map. Normally defined as a series of street names.
	Distinct from **Service**.
Circular	A service that operates on a continuous path, tracing the same route in a single direction multiple times.
	Alternative terms (eg "loop") should be restricted to brand naming.

Term/concept	Notes
Destination	Final destination of a linear service journey, normally associated with the locality of the last stop.
	Circular services by definition do not have a Destination. They will however **Terminate** at the end of their block.
Via	Intermediate locality of a service journey, used to disambiguate routes or highlight popular alighting places.
Calling at	Stop point on a service journey.
	A more general term than **Via**.
Layover	A location that a bus on a service may pause to regulate its progress to timetable. Also used for the period of pause in a service journey.
	Best avoided in passenger communications, being somewhat operational.
Alight here for	Refers to local points of interest, associated directly with the stop point.
Change for	Refers to other public transport services, eg "Change for [bus service] 37" or "change for Metro, Yellow Line".
	May be used with general phrasing, eg "change for services to the city centre".
Terminates	The point at which a service journey ceases.
	Normally the **Destination** but may be at any point in the event of a curtailment.
Equipped	A facility provided by a vehicle, eg wheelchair space.
	Distinct from **Available**, which refers to current status.

2.4   Bus services: timetables

Term/concept	Notes
Frequent	"Frequent" is defined by the Traffic Commissioner as at least 6 buses an hour, *and* at intervals of 10 minutes or less.
	While the public perception may be looser, it is advised to stick to this definition where the term is used in isolation. In qualified or more informal communications, this can be relaxed (eg "the number 19 offers <u>a fairly frequent</u> service during weekday evenings, but becomes <u>less frequent</u> after ten pm").
	Frequent services may be run on a more flexible basis than non-frequent services: as well as timetabled, they may be headway-managed or even demand responsive (ie more runs are inserted when loading is high).
	Static passenger information is normally presented as "…then every X minutes until…" (or sometimes "every X-Y minutes"). Dynamic passenger information will be based on specific vehicles and should be based on minutes countdown, exactly as for non-frequent services.
	"Headway" refers to the interval between successive buses running the same service. This is an operational term and should be avoided in passenger communication. The phrasing "every X minutes" should be used instead.

Term/concept	Notes
Frequency	The rate at which buses of a single service pass a stop. Normally presented as number per hour. Prefer "every X minutes".
	By extension could be used for corridors, eg "to Town Centre: approx. every 10 minutes (Services 6, 7 or 13)", but care needed.
	Cf **Frequent**.
Scheduled	As declared in available published timetables. Used principally for timing.
	Avoid in cases of planned activity which is not declared in published documents, eg "this was scheduled to be a double-decker but has been replaced by a single-decker". Instead use phrasing like "this service *is normally* operated by…" or "…was anticipated to…"
Regular service	A service which is provided on an ongoing basis, whose future provision passengers may reasonable plan around. Usually implies a service running throughout the operational day, but not always (eg "runs every Tuesday" is still a regular service).
	Roughly equivalent to "registered service", but the term "registered" is legalistic and should be avoided for normal passenger communications.
Special service	A service which is provided for a specific purpose, implicitly advising passengers not to expect it in future.
	Examples might include rail relief vehicles, additional vehicles or interpolated journeys used in major events, and vehicles for restricted usage (eg school buses).
School day, match day, race day (etc)	Where used, there must be a clear way for a passenger to establish whether a specific day falls into this category.
	If possible, keep to objective presentations, eg "Mon-Sat", "between 1 Apr and 31 Oct", or "Boxing Day".
Driver change	Preferred term for driver relief in the middle of a service journey (planned or unplanned). May be associated with a **Layover**.
	Avoid the term "relief", which suggests the driver needed replacing for reasons other than rostering!
Timing point	A stop at which an operator has made a regulatory commitment on the arrival time of a specific service.
	This is primarily an operational term and should be used very sparingly with passengers, ie only when there is (a) a clear indication of which stops are timing points, and (b) a high likelihood that the passengers understand and accept the regulatory relevance.
	Should not be used as an excuse for late arrival or early departure: the implication of "yes we know we missed the schedule, but it doesn't matter" is rarely helpful.

2.5   Infrastructure

Term/concept	Notes
Bus station	Building or zone which provides the starting point and/or termination for several bus services. Normally manned at least during the day, and providing some passenger facilities such as a waiting room or refreshment facilities. Cf **Interchange** (the terms overlap).
Interchange	Building or zone which provides the starting point and/or termination for at least one service form more than one public transport mode. Cf **Bus station** (the terms overlap). NB where there is a risk of context confusion, the more specific (but wordier) form "transport interchange" may be necessary.
Stop	Point at which passengers may wait to board, or alight from, a bus. Should normally be marked. Should be referred to by its NaPTAN name.
Stand, bay, stance	Varied terms for a single stop and vehicle space within a larger area (such as a bus station). Should be numbered or otherwise clearly marked. The terminology varies widely in different parts of the country. While "stand" is preferred as a default, the locally familiar term may be used if different.
Zone	A geographically defined area, or a group of individual stops. Used in contexts such as hail and ride services, fare stages or ticket validity. Avoid use which is not linked to the service if possible (eg "pedestrian zone"), even if these are used in non-bus contexts.
Request stop	A **Stop** (or by extension **Zone**) at which some or all services will stop only if specifically requested by at least one passenger.
Hail and ride zone	A **Zone** within which every accessible roadside point, in principle, acts as a **Request stop**. In practice there is often a complex dynamic in hail and ride zones, that leads waiting passengers to gravitate to specific preferred places. This speeds up boarding time and therefore schedule adherence, and leads to a kind of "virtual stop". As this is a matter of emergent passenger behaviour, information tends to be limited to inter-passenger communication.
Waiting area	Any area where people wait for a service, wherever that may be. Context will normally make it clear (eg whether simply the area under a shelter, or a fully equipped space within a bus station).
Shelter	Covered area next to a bus stop; the framework providing the cover.
Flag	A pole-mounted marker for a bus stop. Should include stop identification information. Slightly technical and best avoided wherever practical.
Help point	A physical device used to enable contact with a human representative of either operator or local authority on demand, involving two way communications. Triggered by a **Call button**. Specifically used for requesting special assistance and advice. Cf **Information point** (the terms overlap somewhat).

Term/concept	Notes
Information point	A facility by which basic information may be obtained about the services operating from a particular stop or more widely, normally including timetables, current status and disruption. May be a simple physical display (fixed or dynamic) or an interactive device that enables communication with a human operator, through a **Call button**. Cf **Help point** (the terms overlap somewhat).
Call button	Trigger for a **Help point** or **Information point**.

2.6   Current operations

Term/concept	Notes
Normal operation	
Live	Refers to information updated in real time – loosely, anything that couldn't be done as printed material instead. Passengers will interpret this as being current best-available information, unless warned otherwise (see eg **"Sign under test"**). Departure times should normally be given at stops, where passengers are most likely to want to know when they need to be there to catch the bus. The exception is at the final stop on a service, for which the arrival time should be given. On mobile or on bus, arrival times should normally be given. For clarity for passengers, be sure to be clear about whether arrival or departure times are being shown. This may be tricky if there is a layover at a stop, either scheduled or just *ad hoc* for schedule adherence. Avoid using the term "real time information": it implies that not all time is real...
Time Now	Present digitally as hh:mm:ss or hh:mm using a 24h clock on local time (ie following Summer Time where relevant). Analogue presentation is also possible on a full-screen display, but a digital presentation should also be provided in this case.
Scheduled (see also under section 2.4)	How the published timetable indicates a bus will operate – specifically, when the planned timetable indicates that it is intended to call at a stop. See above under "Live" for details about which information should be shown under what circumstances. Where the service is **Frequent**, times may not be shown.
Next bus	Used at stop to indicate the arrival prediction for the next *relevant* bus; introduces a countdown (or a term like "delayed" or "cancelled"). May be used in two contexts: (a) "Next bus to X" or (b) "Next bus on service Y". The context must be clear. NB where the context is unambiguous – eg all services go to the same place, and/or only one service calls at a stop – the simple term "Next bus" may be sufficient.

Term/concept	Notes
Expected	The best current prediction, typically used for the arrival/departure time of a bus. Under normal operation this would have a specific time value, implying confidence that the time will not change by much more than a minute or two.
Due	Of a bus: predicted to arrive at a stop within a short space of time – may vary locally but intending "too short a time for a minutes-countdown to be meaningful". A typical example is where a stop lies just downstream of a busy signalised junction: the bus may be only a few metres away but held up on a red light. Improved UTMC information could potentially reduce this problem, and mean that "due" really does mean "about to arrive". NB The term "due" is logically ambiguous but is in widespread use, including on other modes, so is generally well understood in this sense. Cf also **Scheduled**, **Due at**. Because of this combination of wide practice and ambiguity, the term "due" should *only* be used in the context of live predictions, and never in respect of timetable information.
Due at	This is a difficult phrase and should be used with caution. The implication is different for different applications – for an operator it is exactly when the timetable says a service will arrive at a stop, but for a passenger (ie through RTI) it is approximately when a service can be expected at a stop. Cf "due"; alternatively "due to arrive at", "scheduled to arrive at", also "expected at".
On Time	Describes the running state of a bus. Currently, the Traffic Commissioner defines "on time" as no more than 1 minute early or 5 minutes late. However, feedback suggests that passengers do not perceive 5 minutes late as "on time". At stop, indicates that the bus is predicted to arrive at the stop at its timetabled time (within a minute or so). We recommend that for display purposes, "on time" should be no more than 2 minutes late. In non-geographical usage (eg vehicle-centric presentation on a web/mobile) indicates that the vehicle is *currently* where its timetable would indicate, within a minute or so. For instance, a bus might be presented as "on time" for the next three stops, but say 4 minutes late for subsequent stops, if there is known congestion after the third stop.
Available	Applies to facilities, for example wheelchair space. "Available" means currently capable of meeting new demand: for example, an occupied wheelchair space is not available (cf **Equipped**).

Term/concept	Notes
Disruption	
Service disruption	Descriptive of any context in which a service is materially off timetable, whether the cause is internal to the service (eg broken down buses), wider transport (eg congestion or accident), or fully external (eg flood).
	Prefer the term "disruption" (and variants such as "disrupted") to alternatives such as "problems", "difficulties" or "failures".
	Disruption information should, as far as possible, identify simply and clearly:
	• The nature of the disruption
	• The scale of the disruption
	• Advice for people affected by the disruption
	• There are no standard, accepted statements to be used for this. Ensure any statements are short and punchy.
Reason[1]	The first item of information about a disruption. Should be specific: not "due to operational reasons", but for example "faulty vehicle", "poor weather", etc.
Re-route	A bus route which is permanently changed for instance as a result of road changes, or new housing developments.
On diversion	A bus that is operating away from its normal route as a result road works, disruption or other temporary circumstance.
	When the diversion ends the service timing is likely still to have changed. Actual times to arrive/depart may be more helpful here than references to a timetable; this may depend on how widely or recently a temporary timetable has been published.
Severity	The second item of information about a disruption. A generic term for how widespread or long lasting the disruption is expected to be.
	Simple semi-quant terms, like TfL's "minor delays", etc, may be helpful, but bear in mind that ten minutes could be "minor" to one person and "severe" to another.
Emergency	A situation where sudden and unexpected disruption to a service occurs, requiring actions that may not be wholly under the operator's/driver's control.
	Advice in an emergency is essential, even if it is "please remain on the bus".
Delay/delayed	A service that is running behind timetable. Cf **Late**.
	This is a flag marker – it merely states a problem – and should always be supported by additional information wherever possible.
	NB the typical use in rail – where "delayed" is an extreme marker, meaning the delay is so serious that even an approximate time is unavailable – is not appropriate for bus, where the likeliest source of (minor) delays is traffic.

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[1] We believe that a consensus list of relatively simple reasons would be beneficial, and are working on the creation of such a list for future versions of this document.

Term/concept	Notes
Late	Use as an adverb ("the bus is 5 minutes late"), not an adjective ("the bus is late").
	Where a reasonably reliable estimate is possible, an expected length of delay should be given (in minutes). An estimated arrival time should be given at the same time.
	Where only a vague estimate is possible, an indicative figure should be given. A duration range (eg "delayed by 15-25 minutes") is helpful in identifying both the likely wait time, and the fact that there is significant uncertainty.
	Where even this is not possible, the implication is that the passenger should not rely on the bus arriving at all, and should abandon the journey (eg use alternative modes). Explicit **Advice** to that effect would be helpful, and seen as honest – even if the bus is in fact running.
Additional information	Contextually relevant information that may help passengers plan their next steps, eg "the Metro is also significantly disrupted" or "the nearest taxi rank is 100m north of this stop".
	Distinct from **Advice** (qv).
Advice	An active recommendation to do something. For complex advice, likely to be by reference: "call this number", "visit our website", etc.
	Distinct from **Additional information** (qv).
Cancelled/not calling	A service that is not expected to run on its route at all is "cancelled".
	A service that is is expected to run but on a shortened route, on diversion, or otherwise, is "not calling" at the omitted stops. Cf **Re-route**, **On diversion**.

2.7   Information facilities

Term/concept	Notes
Sign content	
Character set	Signage should use a clear, readable senserif font of suitable weight (ie not "light" or "bold" type). Roman not italic is preferred. Characters should be balanced, eg capitals should be larger than minuscules and ascenders/descenders should be true[2].
	Correct punctuation is generally a good idea for longer messages: commas, parentheses, bullet points etc. Final full stops can often be omitted on a single-sentence message. Complex punctuation should be unnecessary, as complex sentences should be avoided.
	Accented letters are normally unnecessary in UK signage (including in the Celtic languages).
	Information presented in some foreign languages (Arabic, Hindi, Cantonese etc) may require different character sets, including diacritics. Specialist advice is needed on selecting fonts for these, bearing in mind that some are non-alphabetic.
	Common symbols may be used where necessary (eg °C for *degrees Celsius*, £ for *pounds sterling*). Caution is advised: some symbols have multiple interpretations (eg ' can mean "feet" or "minutes", and older people may still read it as "shillings"!)

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[2]   See also the RTIG guide *Meeting the needs of disabled travellers*, RTIG-PR003-D002.

Term/concept	Notes
Abbreviations etc	Some abbreviations (eg *min* for *minutes*) are very widely recognised and understood. These can be helpful by reducing sign clutter, and therefore improve readability, even where there is space for a full word to be used. Some may be regarded as unproblematic – eg *Op* for *Operator* as the label of a column, since the entries – Stagecoach, Arriva, etc – are essentially self-explanatory. Outside these usages, abbreviations should be avoided. Proper names and long words are particularly problematic (*Wes Cat* for *Westminster Cathedral* is clearly awful). Exactly similar considerations apply to: • contractions (eg *Rd*, *Ave*, *St* for *Road*, *Avenue*, *Street* are OK but *Wsr Ctl* for *Westminster Cathedral* is not) • acronyms • initials (eg *NW* for *North West* is probably OK, as is *alight here for GCHQ*)
Pictograms	Stylised images intending to convey complex information in a single token. Done properly, they are language-independent and very efficient in both cognition time and sign space. Familiar examples are: • Wheelchair symbol (wheelchair accessible; wheelchair **Equipped**) • Circle-slash (cancelled; forbidden) There is currently no good guide on symbology: RTIG is currently working with others, including in the disability community, to address this. NB Symbols and abbreviations are likely to be relatively easy to render in audio, whereas pictograms may be more complex. Care will therefore be needed in ensuring the consistency of visual display and any audio "mirror".
Special messages	
"No services…", "Services resume at…"	Used where a sign and its management system are both fully operational, but no operational **Services** are expected to pass the stop in the near future. Three usages can be distinguished. • "No services **until hh:mm**" is used in periods where time the next expected services is known with high reliability – typically, overnight. • "No services **currently predicted**" is used where, perhaps because of system limitations, the next expected service is not known reliably. A time horizon may be given – eg "…for at least 30 minutes" – but this should be used with caution as it may be misinterpreted as suggesting when the next service *will* be known. • "No services **owing to <disruption>**" is used where services would normally be expected, but are currently disrupted so severely that no approximate time of resumption can be offered. In this case, more information about the disruption (or a pointer to where it can be found) will clearly be beneficial.
"No information"	A display indicating that the sign is working correctly, but that it is not receiving live data – either because of a communication failure or because the central system is actively telling it that there is no live data. Distinct from **No services…** Distinct from **Sign fault** or **Sign under test**.

Term/concept	Notes
"Sign fault"	A default display indicating that the sign is not working correctly. (Obviously not all faults can be so displayed.)
	Distinct from **No information** or **Sign under test**.
"Sign under test"	A display showing that the sign is working correctly but that the information it is showing may not be correct, for the (temporary) duration of sign configuration and testing.
	Any display that looks like "real" information should be kept to a minimum under these circumstances, if there is a significant risk of its being misleading. A blanked sign or a "no information" display are preferable for such cases.
	Distinct from **No information** or **Sign fault**.
"Refer to Timetable"	Where no live information is available, or is unstable, this message should be displayed – the implication being that no better information is available to be provided.
	A telephone number and/or web address should be given to access timetabled information, ideally even if a printed timetable is posted at the stop.

2.8   Fares and ticketing

2.8.1   Note: this is a complex area, and the current draft of this document includes only a few relevant terms which may occur in the context of passenger information and signage.

Term/concept	Notes
Fare	The price paid by the passenger for a journey or trip (single or return).
	Avoid usage for other travel validity, such as day tickets or season tickets, for which the term **price** is preferred.
Fare Stage	A stop or point where point to point fares change; validities of other types are likely to change in parallel. Cf **Zone**.
Accepted	Used to identify where a ticket is being regarded as valid outside of its contractual context. Typically though not exclusively used in temporary circumstances where the contracted service is disrupted (eg "Busco tickets are being accepted on other carriers", "Off-peak tickets are being accepted on this peak service", "bus tickets are being accepted on the Metro").

2.9   Terms to avoid or use with caution

2.9.1   In passenger communications the following terms should be avoided, as being operational, technical, or ambiguous:

- Headway (see **Frequent**)

- Registered service (see **Service**)

- Relief (see **Driver change**)

- Stop area (see **Stop** and **Zone**)

  – Real time information (see **Live**)

2.9.2 The following terms are used but offer particular difficulties and caution is advised:

  – Timing point

  – Due