



BAI Guidelines Subtitling

Introduction

In accordance with the relevant provisions of the Broadcasting Act 2009, the Broadcasting Authority of Ireland has set out the rules required under Section 43(1)(c), to which it has given the title *Access Rules*. The Access Rules were launched on 14th May 2012, and are effective from 15th May 2012. A copy of the Access Rules is available on www.bai.ie or by request from the Authority.

This is the **BAI Guidelines – Subtitling** document. In this document the BAI outlines the general and technical standards required in relation to subtitling provision. These guidelines are intended to support the implementation of the BAI Access Rules regarding subtitling. The BAI acknowledges the assistance of Ofcom’s Guidance On Standards for Subtitling document in the preparation of this document. The guidelines may be changed from time to time, as deemed appropriate.

To assist broadcasters and subtitle providers reading this document, the main points of guidance are printed in bold type. These, however, cannot be properly understood in isolation from the rest of the text.

1. Key Priorities

The key priorities for effective subtitling can be summarised as follows:

- 1.1 The viewer should be allowed adequate reading time.
- 1.2 The viewers enjoyment of the programme is increased when:
 - Subtitles match what is actually said, reflecting the spoken word with the same meaning and complexity; without censoring
 - Subtitles contain all obvious speech and relevant sound effects
 - Subtitles are located sensibly in time and space.
- 1.3 Subtitles should contain easily-read and commonly-used sentences in a tidy and sensible format.
- 1.4 Subtitles for children should have regard to the reading age of the intended audience.

2. General Requirements for Subtitle Display

2.1 Basic Text Display

Teletext characters should be displayed in double height using upper and lower case.



Words within a subtitle should be separated by a single space.

Text should always have a high contrast against the background colour and for normal subtitling purposes should be presented in a black box.

Text will usually be centre justified, but to aid readability it can be justified left, centre or right depending on whether speaker positioning is desired.

Standard punctuation should be used. Punctuation gives valuable clues to syntactic structure and must be carefully displayed in order to be effective

2.2 Colour

As used on analogue services the ITU (R) Teletext format is limited to the availability of seven different text colours, including white; and eight different background (boxing) colours, including black and white. **For normal subtitling purposes black should be used, but if coloured background is used a text colour should be chosen which will also remain legible on a black background.**

The most legible text colours on a black background are white, yellow, cyan and green. The use of magenta, red and blue should be avoided.

If a coloured background is used, the most legible combinations are as follows:

Blue on white;
White on blue;
Red on white;
White on red;
Cyan on blue;
Blue on cyan.

Of these, white on red, white on blue and cyan on blue are preferable, because certain older decoders will reduce these combinations to highly legible white on black, or cyan on black.

Colour in television subtitling is used to aid **Speaker Identification** and indicate the presence of **Sound Effects**. These are discussed later in this document.

2.3 Control Characters

The use of double-height boxed coloured text generally requires six control characters in the teletext line, or eight control characters if coloured background is used. Thus, the maximum space available for subtitle text is only 32 or 34 characters per line.

2.4 Formatting

A maximum subtitle length of two lines is recommended. Three lines may be used if the subtitler is confident that no important picture information will be obscured.



Ideally, each subtitle should also comprise a single complete sentence. Depending on the speed of speech, there are exceptions to this general recommendation, as follows:

- a) Real-time subtitling
- b) Short sentences may be combined into a single subtitle if the available reading time is limited.
- c) Very long sentences which are too long to fit into a single two-line subtitle.
There are two procedures for dealing with such cases:

(i) Break long sentences into two or more separate sentences and to display them as consecutive subtitles

(ii) Allow a single long sentence to extend over more than one subtitle. In this case, sentences should be segmented at natural linguistic breaks such that each subtitle forms an integrated linguistic unit. Preference should be given to segmentation at clause boundaries. Many viewers have found that a segmentation marked by a sequence of dots (three at the end of a to-be-continued subtitle, and two at the beginning of a continuation) is helpful. For example:

When I opened the door...

*...I realised that I had
been in this room before.*

2.5 Punctuation

The effectiveness of punctuation can be enhanced by the use of a single space at the following points:

- i) before exclamation marks and question marks,
- ii) after commas, colons, semi-colons and mid-subtitle full-stops,
- iii) on both sides of dashes (but not mid-word hyphens),
- iv) before opening brackets and inverted commas
- v) after closing brackets and inverted commas.

2.6 Line Breaks

Subtitle lines should end at natural linguistic breaks, ideally at clause or phrase boundaries.

Line breaks within a word are especially disruptive to the reading process and should be avoided.

Justified subtitles should balance linguistic considerations with eye movement. Therefore, when using left, right and centre justification for speaker positioning line breaks must be



carefully considered. The distance between subtitles should be minimised, that is to say, causing the eye the least distance to travel from one line to the next.

Care should also be taken to avoid disruption to the picture content – long thin lines are preferable to 'short and fat' subtitles, but this is not always the case.

Line breaks on conventional aspect ratio receivers (4:3) and widescreen (16:9) receivers must retain the original emphasis of the subtitle.

2.7 Positioning Subtitles on the Screen

Subtitles are usually positioned towards the bottom of the screen, but it is important that this does not obscure 'on-screen' captions, any part of a speaker's mouth or any other important activity. Certain special programme types carry a lot of information in the lower part of the screen and in such cases top-screen positioning will be a more acceptable standard.

Subtitles should be displayed horizontally in the direction of sound effects source or, in the case where speaker identification is employed, in the direction of the speaker.

When consecutive subtitles have boxes of similar size and shape and the second directly over-writes the first, it is useful to position them slightly differently on the screen. This makes it easier for the viewer to perceive that the subtitle has changed.

Widescreen receivers with a screen ratio of 16:9 are now in common use. When these are used to display subtitles it is important to safeguard the text box. This consideration must include standard receivers of 4:3 aspect ratio. Safeguarding can be achieved by ensuring that subtitles are placed within the 'Safe Caption Area' of a 14:9 display.

3. Timing and Synchronisation

Viewers must be given sufficient time to read the subtitles. The length of time that subtitles are displayed on screen must reflect this. Presentation rates however can depend upon the programme content. For example certain programmes, such as "soaps", where the viewer may have familiarity with the characters, can have faster paced subtitles than an unfamiliar drama or a slower moving documentary.

The subtitle presentation rate for pre-recorded programmes should not normally exceed 160 to 180 words per minute.¹

All obvious speech should have some form of subtitle accompaniment. Subtitle appearance should coincide with speech onset and subtitle disappearance should coincide with the end of the corresponding speech segment.

¹ 160wpm corresponds to 800 characters per minute and uses 2 seconds per line. These speeds are increased to 180wpm when add-ons are used (increasing the reading speed by one eighth again).



Synchronisation should be at naturally occurring pauses in speech-sentence boundaries, or changes of scene.

The same rules of synchronisation should apply with off-camera speakers and even with off-screen narrators.

4. Shot Changes

Camera-cuts in the middle of a subtitle presentation cause the viewer to return to the beginning of a partially read subtitle and to start re-reading. In practice, it is recognised that the frequency and speed of shot changes in many programmes present serious problems for the subtitler.

General guidance for dealing with camera-cuts are as follows:

- i) Subtitles that are allowed to over-run shot changes can cause considerable perceptual confusion and should be avoided.**
- ii) Shot changes normally reflect the beginning or end of speech therefore subtitles should commence on a shot change when this is in synchrony with the speaker.
- iii) A subtitle should be 'anchored' over a shot change by at least one second to allow the reader time to adjust to the new picture.
- iv) The insertion of a subtitle less than one second before a camera-cut and its removal less than one second after should be avoided.
- v) Where practical subtitles should be in exact synchrony with a camera-cut.
- vi) A decision to segment a single sentence into more than one subtitle, to be placed around a camera-cut, should depend on whether the sentence can be segmented naturally and on whether the resulting subtitles can be allowed sufficient display time.

5. Special Techniques

5.1 Emphasis and Phrasing

Text in upper case characters can indicate an increase in volume, for example shouting, while emphasis of an individual word can be achieved by a change in colour.

5.2 Tone of Voice

Where tone of voice is particularly critical to meaning, and facial expression and body language are inadequate to convey the tone, the use of '(!)' and '(?)' immediately following speech can indicate sarcasm and irony.



5.3 Speaker Identification

The use of colours to identify individual speakers is particularly helpful although over use is known to confuse. Where possible, therefore, each speaker should be identified by a single colour consistently throughout the programme.

An alternative is to use subtitle screen position and justification to support speaker identification. Each subtitle can be displaced horizontally towards the appropriate speaker although careful positioning will be needed when characters move about while speaking. Colours may still be added.

5.4 Off-Screen and Off-Camera Voices

When the source of off-screen/off-camera speech is not obvious from the visible context, special techniques should be used.

Off-camera speakers are effectively indicated by using the 'greater than' (>) or 'less than' (<) symbols as appropriate.

When off-screen speech is employed throughout the programme, eg as in narrative documentaries, the common approach is to centre subtitles without symbols.

Other situations where the source of speech is not immediately apparent include telephone voices, radios, tannoy announcements, etc. It is helpful to accompany the first subtitle from these sources with a labelled (See **2.9 Other Techniques**). caption:

LOUDSPEAKER: "Fasten your seat-belts, please."

Character-name labels are sometimes necessary for clarification, eg for crowd scenes or scenes enacted in the dark.

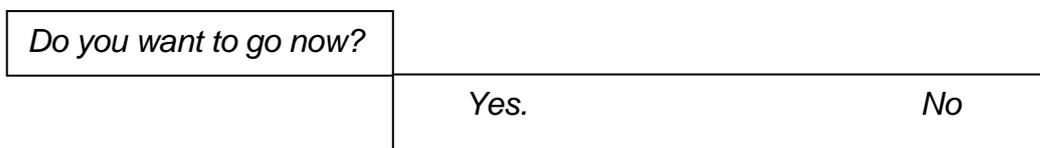
JOHN: What's happened to the lights?
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6. Dialogue Techniques

All obvious speech should be accompanied by subtitle information, but under conditions of rapid dialogue, several short subtitles displayed in rapid sequence can result in staccato or 'machine-gun' effect. There are two possible solutions for this:

- i) Use of Double text when more than two characters speak simultaneously and contradict one another for example:



Both person's speech is contained within one subtitle where the appearance of each subtitle should form the beginning of the corresponding speech segment

- ii) Use of add-ons or cumulative titles

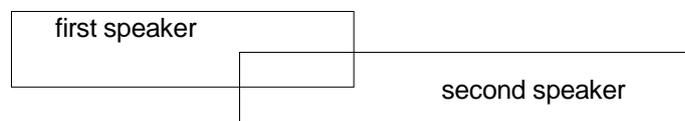
This is most effective when the two subtitles fit naturally together, for example in a question and answer sequence, or providing the punch line of a joke. Here the second part of the title is added on to the first part at the onset of the second utterance.

A further advantage of add-ons is that they appear more natural when the two corresponding speakers are not shown in the same camera shot.

Add-ons should be used with care as they can cause the first part of the cumulative title to be re-read, resulting in a frustrating 'false alarm'.

Add-on techniques

In both double-text and add-ons, the second part should normally appear on the line immediately beneath the first part. If the second speaker is positioned to the screen right of the first speaker, then the second part of the double-text is displaced towards the right:



A general guide to the use of double-text and add-ons may be stated as follows:

- i) Double-text can be used when two characters or more speak simultaneously.
- ii) Add-ons should normally be preferred when two or more characters speak consecutively and time does not allow individual subtitles.
- iii) The total length of either double-text or add-on sequence should never exceed four lines.



7. Other Techniques

- i) Single quotes '...' can indicate non-synchronous speech, eg a voice-over or thoughts or nothing on screen visibly connected with speech.
- ii) Unmarked text in upper and lower case indicates synchronous speech, i.e. the speaker is visible (most of the time) and titles follow.
- iii) Double quotes "..." can suggest mechanically reproduced speech, eg radio, loudspeakers etc or a quotation from a person or book.
- iv) Text in brackets can indicate whispered speech or asides.

(SLURRED) He wasn't there.

- v) Brackets can also be used to indicate the way in which a person speaks:
- vi) The source of speech can be labelled by using capital letters followed by a colon:

LOUDSPEAKER:
*"Fasten
your seat-belts,
please."*

JOHN: *What's happened to the lights?*

- vii) Uncommon abbreviations, such as SFX, should be avoided.

8. Sound Effects

Any relevant sound effect not immediately obvious from the visual action should be subtitled. This includes sound effects that become apparent in the subsequent action, eg the telephone ringing before it is picked up, an explosion occurring outside before everyone dives under the table.



Descriptive statements are normally preferable to onomatopoeic spellings for sound effects. But context and genre (cartoons versus drama, for example) must be taken into consideration.

GUNSHOT is usually preferable to BANG!!!

Sound effect subtitles can also be used judiciously to create the background atmosphere for a scene:

ROAR FROM AUDIENCE

LIVELY CHATTER

The use of background colour (eg white text on a red background) and upper-case text, provide a distinction between sound effect subtitles and speech subtitles.

9. Music

At the very minimum, the title of the music playing should be given. Where possible the words of a song should be included. This is especially important where the programme is to be viewed by younger people. Pop programmes, opera and songs connected to the story line are particularly important areas.

Song lyrics should be subtitled verbatim; but, if the pace of the song is very rapid, whole couplets or verses may be omitted.

The lyrics of a song should be made obvious by means of a sign. The 'hash' or 'sharp' sign is most commonly used. Where speech and song are interspersed, care should be taken to signpost each title correctly.

Provision of an occasional subtitle for mood music, if it is significant to the plot, can be very effective:

IRISH TRADITIONAL MUSIC

Such subtitles should be used only sparingly.

Occasionally, consecutive scenes are enacted in pitch darkness, and scene changes are signalled entirely by changes of incidental music. In such cases, if time permits, the subtitler should use subtitles such as:

LIVELY DANCE BAND MUSIC

Then, when the tempo of music changes dramatically, it is followed by:

MOVES INTO SLOW DANCE MUSIC

Thereby deaf viewers are made aware of the scene change.



10. Silence

Long speechless pauses in programmes can sometimes lead the viewer to wonder whether the teletext system has broken down. It can help in such cases to insert an explanatory caption such as:

INTRODUCTORY MUSIC

LONG PAUSE

ROMANTIC MUSIC

11. Failure of Subtitles

Losing subtitles is as frustrating for the hearing-impaired viewer as losing sound is for the hearing viewer.

If subtitle insertion fails, it is important that there is a prompt transmission of an appropriately worded apology caption and, if restoration of transmission is delayed, an early explanation is to be given.

12. Acquired Programmes

When broadcasters are converting acquired subtitling to meet the minimum standards set out in the guidelines, it is accepted that complete synchronisation or the presentation rate standards may not be possible.

13. Subtitling for the intended audience including children

The typical pace and complexity of subtitling can exclude a minority of less able readers within the deaf community. For many pre-lingually deaf children, a subtitle presentation rate of 70-80 words per minute is appropriate.

Three main editing devices should be remembered:

- i) Reduce the amount of text by reducing the reading speed and removing unnecessary words and sentences.
- ii) Represent the whole meaning.
- iii) Increase the use of three-line subtitles and reduce the number of add-ons.

Subtitles should accurately reflect the spoken word and as such should not be censored.

13.1 Children's Subtitles

While many deaf children over 11 years benefit from standard subtitling, those under the age of 11 years need simpler subtitles. The following guidelines are recommended for the subtitling of programmes targeted at children below the age of 11 years.



- i) **There should be a match between the voice and subtitles as far as possible.**
- ii) A strategy should be developed where words are omitted rather than changed to reduce the length of sentences.

14. Real-time subtitling

The production and transmission of subtitles in real time can present considerable problems for both the subtitler and the viewer. Current subtitling techniques, particularly for live broadcasts, do not provide the same high-quality service expected from pre-prepared scripts. **Such techniques should be limited to occasions when there is insufficient time to prepare subtitles using other methods.**

The construction of subtitles for informative subjects such as news should convey the whole meaning of the material.

14.1 Guidelines for Real-time Subtitling

In all cases efforts must be made to adhere to the following:

- i. Subtitles should contain a reasonable percentage of the words spoken.
- ii. Key facts should appear as a good percentage of the spoken message
- iii. Avoid key facts which are unnecessary or different from the original.
- iv. Where possible, avoid non-linguistic line breaks (splitting verbs etc).
- v. Attempt to avoid overrunning shot changes (synchronisation).
- vi. Avoid subtitling over existing video captions (in news, this is often unavoidable, in which case a speaker's name can be included in the subtitle if available).
- vii. Send an apology caption following any serious mistake or a garbled subtitle; and, if possible, repeat the subtitle with the error corrected.

When cueing prepared texts for scripted parts of the programme:

- i) Try to cue the texts so that they closely match the spoken words in terms of start time.
- ii) Try to include speakers' names if available where in-vision captions have been obliterated.
- iii) Do not cue texts out rapidly to catch up if you get left behind - skip some and continue from the correct place.



15. Digital Services

The advent of digital television offers the possibility of visual and technical enhancement of subtitles. One such way is the introduction of a clearer and more legible font and the use of symbols. The purpose of these changes is to increase the user's enjoyment of television. They should not be introduced in a way which detracts from the prime purpose of the subtitling service, which is to facilitate the understanding of programmes by deaf and hard of hearing people.

The guidelines set standards on converting existing subtitle files authored in analogue for use on Digital Terrestrial Television (DTT) and other digital services such as satellite and MMD. It is not intended that these guidelines should inhibit future enhancements, but rather to control progress so that changes that deviate radically from current practice should be made only after careful consideration and consultation.

- i) Any Digital Terrestrial Television (DTT) shall use the Tiresias font for all subtitles.**
- ii) Other digital services should be encouraged to use this format or as close it as may be possible.**
- iii) The nominal size of subtitles shall be 24 television lines for the capital 'V'.**
- iv) For reasons of latency, use of intensive four-line subtitles, to include those within "add-ons", shall be avoided. (Latency means the presentation of subtitles to the screen. Intensive subtitles mean those where the subtitle rows contain a considerable amount of text).**
- v) Subtitles converted from existing EBU 3264 files (or similar) or from pre-recorded live 335 tapes shall as closely as possible retain the positioning and line breaks of the original.**
- vi) The range of colours shall be limited to 12 that shall closely replicate the range associated with analogue teletext delivery.**
- vii) The present practice of using '#' to indicate music may be changed to use of two semi-quavers as part of the Tiresias set.**

16. OTHER MATTERS

16.1 National Emergencies

Deaf and hard-of-hearing people need to be kept informed about national and local emergencies.

When information about emergencies is being broadcast, the same information, including relevant telephone numbers, should be provided, preferably in open captions leaving sufficient time to write the details down.



16.2 Apology Captions

Where practicable an appropriate apology or explanation is to be transmitted as soon as possible after any loss of subtitles.

Broadcasters, that are required to provide subtitles, must ensure that conventional subtitles (transmitted on a dedicated line within the VBI and are normally accessed via Page 888 on the remote control), are provided on all analogue terrestrial and digital satellite transmission services. Such broadcasters should, as far as possible, ensure that subtitles can be carried through on re-transmission systems including, but not limited to, cable and MMD systems.

Broadcasters are encouraged to develop experience in the provision and transmission of digital subtitles. Where subtitles are provided simultaneously in both conventional and digital modes, the conventional subtitling capacity only will be taken into account in determining the subtitling targets.