



COVERING NOTE

GENERAL SECRETARIAT INTERNATIONAL TELECOMMUNICATION UNION

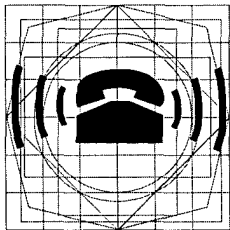
Geneva, 11 October 2004

ITU – TELECOMMUNICATION
STANDARDIZATION SECTOR

Subject: Erratum 1 (10/2004) to

ITU-T Recommendation E.121 (06/2004), *Pictograms, symbols and icons to assist users of the telephone and telefax services*

Replace symbol No. 2 in Figure 12/E.121 "Additional symbols for telecommunication functions" by the following one:

Symbol No.2: Telephone ringing sound	
	Application: On telecommunications equipment, to indicate the control for a telephone ringing sound, or the status that the signal is calling.

E.121_F12a



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

E.121

(06/2004)

**SERIES E: OVERALL NETWORK OPERATION,
TELEPHONE SERVICE, SERVICE OPERATION AND
HUMAN FACTORS**

**International operation – General provisions concerning
users**

**Pictograms, symbols and icons to assist users
of the telephone and telefax services**

ITU-T Recommendation E.121

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FACTORS**

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ITU-T Recommendation E.121

Pictograms, symbols and icons to assist users of the telephone and telefax services

Summary

The purpose of this Recommendation is to identify pictograms, symbols and icons that could be used to aid users in the identification of services available and then in the use of such services. The revisions to this Recommendation include new symbols and pictograms, developed in close collaboration with the International Electrotechnical Commission (IEC).

Source

ITU-T Recommendation E.121 was approved on 29 June 2004 by ITU-T Study Group 2 (2001-2004) under the ITU-T Recommendation A.8 procedure.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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ITU-T Recommendation E.121

Pictograms, symbols and icons to assist users of the telephone and telefax services

1 Scope

The purpose of this Recommendation is to identify pictograms, symbols and icons that could be used to aid users in the identification of services available and then in the use of such services.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- ITU-T Recommendation E.122 (1988), *Measures to reduce customer difficulties in the international telephone service*.
- ITU-T Recommendation E.181 (1988), *Customer recognition of foreign tones*.
- ITU-T Recommendation F.910 (1995), *Procedures for designing, evaluating and selecting symbols, pictograms and icons*.

3 Definitions

This Recommendation defines the following terms:

3.1 symbols, pictograms and icons: are graphical representations that convey information with a minimum of reliance on language.

Pictograms are typically said to be simplified pictorial representations, used to guide people and tell them how to achieve a certain goal. Pictograms are, as far as possible, self-explanatory, and require little or no learning on the part of users.

Symbols, on the other hand, are usually defined as abstract representations that stand for something but that require learning on the part of users to take on their meaning.

Symbols and pictograms can be considered to lie at opposite ends of a continuum defined by the degree to which they are pictorial representations of the things they represent. As a practical matter, many of the symbols and pictograms in use today, including many of those found in this Recommendation, lie some distance from either end of that continuum. That is, they may contain some degree of abstraction combined with a degree of pictorial representation.

Icons are similar representations that have become widely used as objects of manipulation in graphical user interfaces for computer applications. They may be entirely abstract, like symbols, or pictorial, like pictograms, or fall at some point between those extremes. The use of this term is growing beyond its origin in computer user interfaces.

In this Recommendation, the terms "symbol", "pictogram" and "icon" will be used as far as possible in the spirit of the definitions given above. However, it must be realized that the choice of one term or the other is, to some considerable degree, arbitrary in many cases. No effort has been made here

to adhere strictly to clearly delineated distinctions between these terms, as distinctions have proved impossible to draw reliably.

4 Abbreviations

This Recommendation uses the following abbreviations:

IEC International Electrotechnical Commission

ROA Recognized Operating Agency

5 Elements of symbols and pictograms

5.1 Use of elements

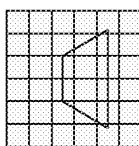
Symbols and pictograms can be made up of other symbols and pictograms, known as elements.

The following elements are examples of those used in the standardized pictograms and symbols:

--- a telephone handset



— a loudspeaker

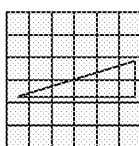


--- letters



Information

--- a volume control



Variability (417-IEC-5004)

E.121_F5.1

The elements used in graphically representing tones are described in clause 6. The elements used in the supplementary services symbols are listed in clause 10.

5.2 Guidelines for design

The idea for a pictorial design for a particular device, function or service should, whenever possible, be based on the user's mental picture of that device, function or service.

Realistic pictograms are more self-explanatory and require less learning than abstract symbols. Hence, whenever possible, the designer should aim at realistic representation. If a pictogram or symbol exists in a context other than telecommunications and is understood by customers, then, where applicable, it should be used. This has two benefits. The first benefit is that users can transfer the knowledge that they already have to the telecommunications environment, and so complete their goal quicker and easier. The second benefit is to limit the introduction of new pictograms or

symbols. This will minimize the mental load that a customer may encounter when trying to remember the meaning of a pictogram or symbol. It will also reduce the confusion that a user might have between different pictograms or symbols performing the same function in different contexts and similar pictograms or symbols performing different functions in different contexts.

To achieve fast visual recognition, pictograms and symbols should be as simple as possible and they should be easily distinguishable from other currently used pictograms and symbols.

The design of a consistent set of pictograms or symbols should be guided by a few unambiguous rules about the meaning of pictorial elements within a particular application and the relationship between these elements (see, for example, clause 10). The set should not be larger than strictly necessary; a maximum of three different elements is recommended.

The design of pictograms and symbols should meet the technical requirements of their application. If they are to be displayed on the individual keys of a keyboard or on a VDU screen, their design should allow this without essential modification. In both these cases they should be easily recognizable from a distance of 50 cm.

The styling, size, colour and position of each recommended pictogram or symbol is left to the discretion of the Administration, service provider or ROA. Each pictogram or symbol should, however, bear a close perceptual similarity to those shown in this Recommendation.

6 Graphical representation of tones

Graphical representations of tones are useful for printed instructions given to customers. They can be used to help customers understand the relationship between a tone and its meaning, starting from either the tone or the meaning. For example, the graphical representation of call progress tones might help customers recognize the unfamiliar ringing tone when calling another country. They can also be used as a reference to identify the meaning of unexpected and unfamiliar tones. Thus, they might help answer questions of the form:

What does the ringing tone sound like in (country X)?

or

What does the rapid "pipping" tone mean?

The following subclauses describe how best to represent various aspects of tones graphically. Whenever graphical representations of tones are used:

- Intermittent tones should normally be represented by at least two full cycles.
- The same time-scale should be used in the representation of all tones in the same figure.

6.1 Temporal structure

This factor should be represented by appropriate blank intervals along a horizontal time axis.



6.2 Pitch variation in a tone

This factor should be represented by the vertical displacement of a linear element above the time axis.

