

Telephone Number Input and Display

Quick Implementation Guide

**Edition 1
22nd April 2010**

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This document was prepared for NHS Connecting for Health which ceased to exist on 31 March 2013. It may contain references to organisations, projects and other initiatives which also no longer exist. If you have any questions relating to any such references, or to any other aspect of the content, please contact cui stakeholder.mailbox@hscic.gov.uk

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Introduction

Telephone numbers are essential for communicating with patients and with other people inside and outside the NHS. Therefore, they must be read and entered accurately and not confused with other numbers, such as the patient's NHS Number.

Important

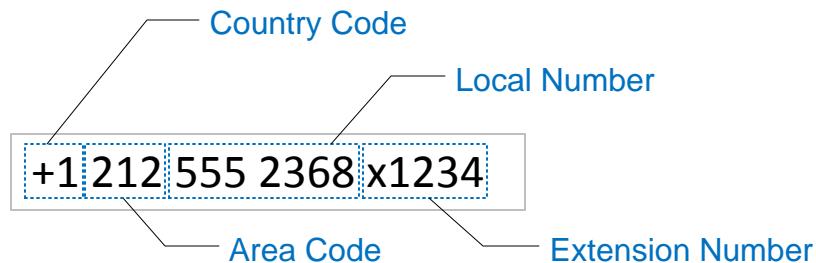
Although it contains all of the guidance points, this document omits supporting information and is therefore not intended as a substitute for the full NHS CUI document *Telephone Number Input and Display*¹. Refer to that document for the definitive statement of the design guidance in this area.

The visual representations used to display the guidance are illustrative only. Stylistic choices (for example, display font used), unless otherwise specified, are not part of the guidance and are therefore not mandatory requirements.

¹ Telephone Number Input and Display – User Interface Design Guidance (v4.0.0.0)

Telephone Number Display

Telephone numbers in NHS clinical applications can comprise up to four elements:



Home 0118 496 0123

TID-0001

If the country code is for the UK, for example, '+44' or '0044', then it must not be displayed

Mandatory

Home +1 212 555 2368

TID-0002

When displayed, the country code must always be displayed with a '+' sign in front of it

Mandatory

Home +1 212 555 2368



TID-0003

When displayed, the country code must not display any leading zeros

Mandatory

TID-0004

When displayed, the country code must be separated from the rest of the telephone number by a single space

Mandatory

Telephone Number Display

Work

0118 123 4567

TID-0005

For UK telephone numbers, the area code must not be displayed with brackets around it

Mandatory

Work

0118 123 4567



TID-0006

For UK telephone numbers, the area code must be separated from subsequent numbers by a space

Mandatory

0118 987 6543 x1234

TID-0007

For UK telephone numbers, extension numbers can be displayed with an 'x' preceding and adjacent to the number

Recommended

0118 987 6543 x1234



TID-0008

For UK telephone numbers where the telephone and extension numbers are displayed within a single input box, the extension number must be separated from the rest of the telephone number by a single space that precedes the 'x'

Mandatory

Telephone Number Display

Telephone Number

987 6543

Extension

1234

TID-0026

For UK telephone numbers where the extension number is displayed in a separate input box, a label must be shown above the input box to indicate the content

Recommended

Work

0118 123 4567

↑
space

TID-0009

For UK telephone numbers, if there are more than six digits in the local number, (in other words, not the country code, area code or extension number), then a space must be inserted before the final four digits

Mandatory

TID-0010

The telephone number should be formatted for display according to the rules detailed in the [Appendix](#)

Recommended

Telephone Number Input

Telephone number input can be supported by one of two designs. Both designs will accept and correctly identify both UK and non-UK numbers.

1. A single unassisted entry input box, optimised for UK telephone number entry.
This design should be used when it is anticipated that the majority of telephone numbers input will be UK numbers:

Telephone Number e.g. 01234 567890

2. A single entry input box with country selector assistance, optimised for non-UK telephone numbers:

Country Code Telephone Number

+44 (UK)



e.g. 01234 567890

Guidance

Telephone Number Input

Prompts

The choice of what string to use for the prompt for an unassisted text entry box will be context specific. Here are some suggested prompts:

Home

Work

Telephone Number
Work Extension

Tooltips

The choice of what string to use for the tooltip for an unassisted text entry box will be context specific. Here are some suggested tooltips:

Home



Enter the 'home' telephone number

Work



Enter the 'work' telephone number.
To include an extension number, add an
'x' to the front of the extension number

Telephone Number
Work



Enter the 'work' telephone number.
To include an extension number, enter the
number into the extension number box

Telephone Number Input

Telephone Number

e.g. 01234 567890

TID-0011

Use a free-text input box for the entry of telephone number

Mandatory

Telephone Number

e.g. 050 1234 5678

Extension

e.g. 1234

TID-0027

Use a free-text input box where extension number is input into a separate input box

Mandatory

Unformatted text entry

1

01181234

2

01181234567|

3

0118 123 4567

TID-0012

Ensure the input box accepts formatted and unformatted entries

Mandatory

Formatted text entry

1

01181-2

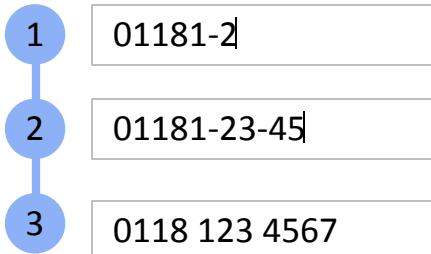
2

01181-23-45

3

0118 123 4567

Telephone Number Input



TID-0013

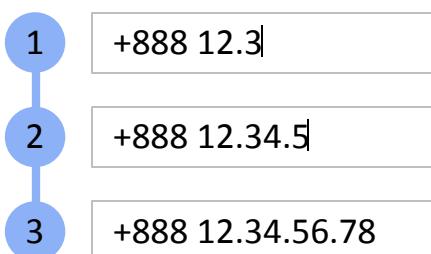
If the number can be identified as a valid type (as detailed in [Appendix](#)), the input box should strip out formatting upon losing focus and replace it with a reformatted equivalent

Mandatory

TID-0014

Display a reformatted entry to the user which places spaces in logical locations for readability

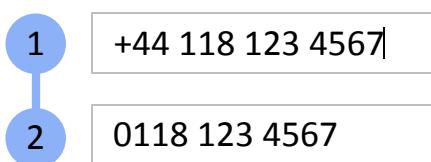
Mandatory



TID-0015

If the number cannot be identified as a valid type (as detailed in [Appendix](#)), display the entry to the user as it was entered

Mandatory



TID-0016

Remove the UK country code from display after it is committed

Mandatory

TID-0018

Do not display UK numbers with the international prefix

Mandatory

Telephone Number Input

- 1
- 2

+1 212 555 23

+1 212 555 2368

TID-0017

Retain all other country codes

Mandatory

TID-0019

Display non-UK numbers with
a + prefixed to the country
code

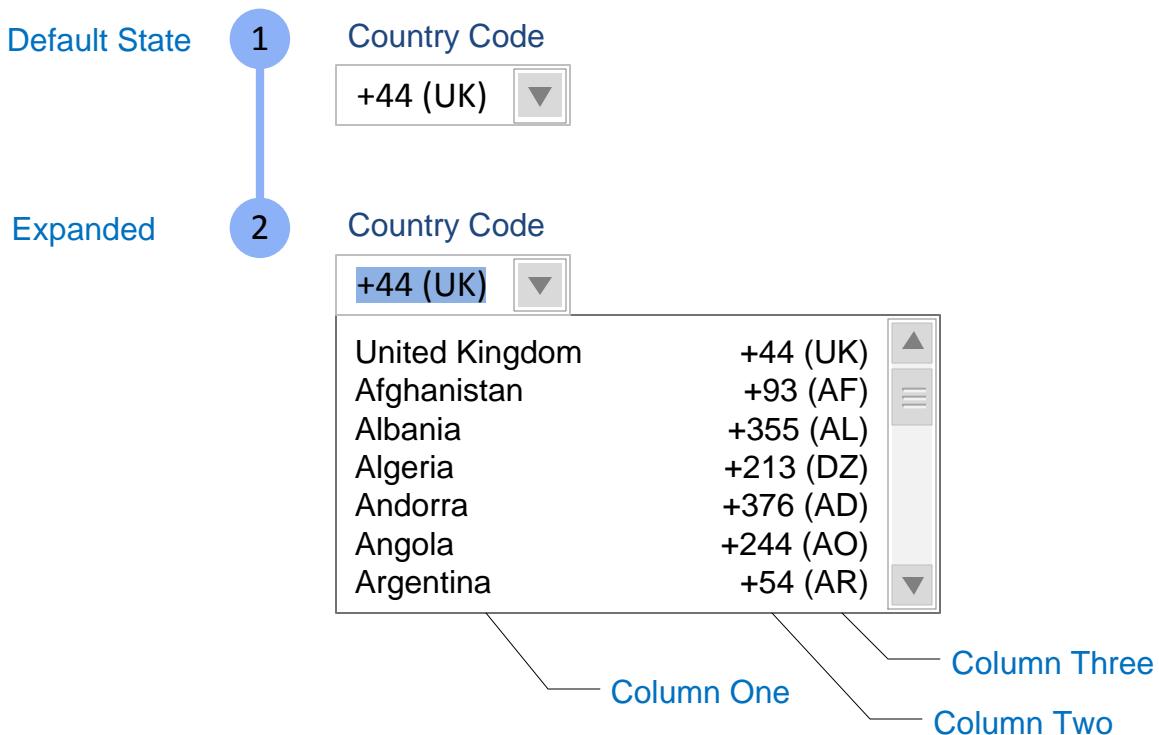
Mandatory

Guidance

Telephone Number Input

Assisted Country Selector

The primary use case for this control is as a secondary level of input after the user has stated that they will be inputting a non-UK number.



Column Contents

One	ISO 3166 country names
Two	Ofcom list of dialling codes
Three	ISO 3166 abbreviated country codes

TID-0021

Use the content indicated in the illustration in columns one, two and three. Use the abbreviation 'UK' instead of the ISO 3166 code of 'GB'
Mandatory

Telephone Number Input

Assisted Country Selector

Country Code

+44 (UK) 

Telephone Number

e.g. 01234 567890

TID-0023

Use an editable drop-down list for country codes

Recommended

TID-0020

Use a default value of +44 (UK) for the country code

Mandatory

Country Code

+44 (UK) 

United Kingdom	+44 (UK)
Afghanistan	+93 (AF)
Albania	+355 (AL)
Algeria	+213 (DZ)
Andorra	+376 (AD)
Angola	+244 (AO)
Argentina	+54 (AR)

TID-0022

Order the country names alphabetically. Include United Kingdom once at the top of the list and once in its appropriate alphabetical location

Mandatory

Country Code

Af 

United Kingdom	+44 (UK)
Afghanistan	+93 (AF)
Albania	+355 (AL)
Algeria	+213 (DZ)
Andorra	+376 (AD)
Angola	+244 (AO)
Argentina	+54 (AR)

TID-0024

Allow the country codes to be navigated using free-text entry

Recommended

Telephone Number Input

Assisted Country Selector

Country Code

+44 (UK)	
United Kingdom	+44 (UK)
Afghanistan	+93 (AF)
Albania	+355 (AL)
Algeria	+213 (DZ)
Andorra	+376 (AD)
Angola	+244 (AO)
Argentina	+54 (AR)

TID-0025

Populate the country selector list with the three elements below and in this exact order:

1. Country Name

Left-aligned and vertically aligned to all rows

2. Country Dialling Code

Right-aligned using the '+' format, for example '+44'

3. Country Abbreviation

Right-aligned, two character code, enclosed in single brackets and vertically aligned to all rows

Recommended

Appendix

The following rules are from the *NHS CFH – NPfIT SCG – SCG Guidance on Telecommunication Standards*¹. Refer to the location indicated for the latest version of these rules.

CSA Rules for Telephone Number Element Identification

- 1 If the value starts with a plus sign (+) or '00', then apply International Number Prefix Rules – **go to step 3**
- 2 Otherwise apply UK Telephone Number Representation Rules – **go to step 11**

International Number Prefix Rules

- 3 If the value starts with '+44', and the following digit is not '0', then replace '+44' with '0' and apply the UK Telephone Number Representation Rules – **go to step 11**
- 4 If the value starts with '0044', and the following digit is not '0', then replace '0044' with '0'; apply the UK Telephone Number Representation Rules – **go to step 11**
- 5 If the value starts with '+', then apply the following International Number Representation Rules – **go to step 8**
- 6 If the value starts with '00', then replace '00' with '+' and apply the following International Number Representation Rules – **go to step 8**
- 7 If the value starts with '+44' or '0044' and the following digit is '0', then (this is invalid) display the entire value as received – **end**

International Number Representation Rules

- 8 Add a space after the international dialling code element using the international standard available at <http://www.itu.int/ITU-T/inr/codes.html>
- 9 Remove any immediately following separator character
- 10 IF the remainder contains any non-numeric characters other than valid separator characters, then display the remainder of the value as received – **end**

OTHERWISE

- i. If the remainder contains any valid separator characters, then replace each separator character with a space – **end**
- ii. Else, introduce spaces preceding every four characters, from the right, so that there are never more than 6 characters without a break, and never fewer than 3 characters in a group – **end**

¹ NHS Connecting for Health – NPfIT SCG – SCG Guidance on Telecommunications Standards
<http://www.connectingforhealth.nhs.uk/systemsandservices/data/scg/publications/scg002305.pdf>

Appendix

CSA Rules for Telephone Number Element Identification

UK Telephone Number Representation Rules

11

IF the value contains any non-numeric characters other than valid separator characters, then display the value without further transformation – **end**

OTHERWISE

If the value contains valid separator characters, then remove the separator characters and apply the transformation rules as specified in the following sections

12

IF the numeric value begins with '01' or '02', then test these geographic area number representation rules in the following order. Only apply one rule:

- a. If the code starts '02', then insert a space after the 3rd digit
- b. If the code has a '1' in the 3rd or 4th position, then insert a space after the 4th digit
- c. If the first 6 digits match any of the following 11 codes, then insert a space after the 6th digit:

013873 Langholm;
015242 Hornby;
015394 Hawkshead;
015395 Grange-Over-Sands;
015396 Sedbergh;
016973 Wigton;
016974 Raughton Head;
017683 Appleby;
017684 Pooley Bridge;
017687 Keswick;
019467 Gosforth.

- d. For all other codes, insert the space after the 5th digit

13

Having applied the above rules, if the remainder of the number, following the space, contains more than 6 digits, then introduce a space preceding the final four digits

14

If the numeric value begins with '07' or '05' or '03' or '04' or '06', then follow these number representation rules:

- a. Add a space after the first 5 digits (including the initial 0)
- b. If the remainder contains more than 6 digits, then introduce a space preceding the final four digits

15

If the numeric value begins with '08' or '09', then follow these special services number representation rules:

- a. Add a space after the first 4 digits (including the initial 0)
- b. If the remainder contains more than 6 digits, then introduce a space preceding the final four digits

16

If the numeric value does not begin with '0', then display the value without further transformation – **end**

Example Additional Rules for Handling Extension Numbers

1

Identify if the number has any of the following characters or sequence of characters in it, followed by a sequence of digits:

x ex ext extn extension extension number

Any of the above, followed by:

.	Full stop
:	Colon
=	Equals sign
-	Hyphen

2

If so, then remove the identified characters and replace with an 'x'

3

Then remove the 'x' with any subsequent digits and only replace them at the end of the telephone number after all of the *NHS CFH – NPfIT SCG – SCG Guidance on Telecommunication Standards*¹ rules have been applied to the remaining telephone number.

¹ NHS Connecting for Health – NPfIT SCG – SCG Guidance on Telecommunications Standards
<http://www.connectingforhealth.nhs.uk/systemsandservices/data/scg/publications/SCG002305.pdf>