

TABLE OF CONTENTS

- [Description](#)
- [Overview](#)
- [Features](#)
- [Getting started](#)
- [Using a menu](#)
- [Using a dialog box](#)
- [Applications](#)
- [File explorer](#)
- [Presentation and navigation in the current folder](#)
- [Multiple selection](#)
- [Recycle bin](#)
- [File explorer menu](#)
- [File menu](#)
- [File > New menu](#)
- [Edit menu](#)
- [Go to menu](#)
- [Recycle bin menu](#)
- [File menu](#)
- [Editor](#)
- [File](#)
- [Edit](#)
- [Edit > Bookmarks](#)
- [Edit > Search](#)
- [Math](#)
- [Insert](#)
- [Speech](#)
- [View](#)
- [Tools](#)
- [Preferences](#)
- [Main sections](#)
- [Preference details](#)
- [Clock](#)
- [User interface](#)
- [Explorer](#)
- [Editor](#)
- [Math](#)
- [Dictionary](#)
- [Music](#)
- [Speech and synthesis](#)
- [Connection, simulator, and startup](#)
- [Update](#)
- [About](#)

- [Shutdown](#)
- [Eole Library](#)
- [Wikipedia](#)
- [Translation](#)
- [TeamViewer](#)
- [Homework](#)
- [Managing subjects](#)
- [Creating an assignment](#)
- [Dictionary](#)
- [Weather](#)
- [Technical appendices](#)
- [Appendix - Editor - Braille tags](#)
- [Character decoration](#)
- [Primary and secondary braille type](#)
- [Custom braille type](#)
- [Appendix - Editor - Export](#)
- [Appendix - Editor - Search](#)
- [Appendix - Editor - Mathematics](#)
- [Recognized elements](#)
- [Delimiters](#)
- [Operators](#)
- [Functions](#)
- [Comparisons](#)
- [Geometry](#)
- [Arrows](#)
- [Sets](#)
- [Trigonometry](#)
- [Statistics](#)
- [Lowercase Greek letters](#)
- [Uppercase Greek letters](#)
- [Constants](#)
- [Appendix - Command keyboard shortcuts](#)
- [b.note](#)
- [b.book](#)
- [Appendix - Braille keyboard shortcuts](#)
- [General](#)
- [Menu / Dialog box](#)
- [Editor](#)
- [File explorer](#)
- [Appendix - 6-dot braille tables](#)
- [Full 6-dot braille characters - French](#)
- [Full 6-dot braille characters - Spanish](#)
- [Full 6-dot braille characters - German](#)
- [Full 6-dot braille characters - English \(United Kingdom\)](#)
- [Full 6-dot braille characters - English \(US\)](#)
- [Appendix - 8-dot braille tables](#)
- [Computer 8-dot braille characters - French](#)

- [Computer 8-dot braille characters - Spanish](#)
- [Computer 8-dot braille characters - German](#)
- [Computer 8-dot braille characters - Italian](#)
- [Computer 8-dot braille characters - English](#)
- [Computer 8-dot braille characters - US](#)
- [Appendix - 10-dot braille functions](#)

Description

Overview

b.suite is an application directly interfaced with a braille device. This integration gives it ergonomics optimized for braille, without relying on screen reading or visual analysis.

b.suite provides an application menu with access to:

- File explorer
- Editor, named after each open document
- Homework
- Preferences
- Eole library
- Wikipedia
- Online translation
- TeamViewer
- Dictionary
- Online weather
- Shutdown

Features

- Hardware: Windows 10 or 11 PC, minimum 8 GB RAM.
- USB or Bluetooth connection to a b.note or b.book.
- Import of text (`.txt`), braille (`.brf`), CSV (`.csv`), RTF (`.rtf`), Markdown (`.md` , `.markdown`), LibreOffice (`.odt`), Microsoft Word (`.docx`), PDF (`.pdf`), HTML (`.html`), esysuite (`.mbe`), and EPUB (`.epub`) files.
- Opening of `.bxml` and `.musicxml` music documents, as well as DAISY books in `.zip` format.
- Support for several braille encodings within the same document depending on the selected language and braille type.
- Support for French CBFS math braille and English Nemeth or UEB math braille.
- Display of the document in readable print form and full mouse handling on open documents.

Getting started

Installing **b.suite** simply requires running `Setup_bsuite.exe` . Once installation is complete, click the **b.suite** icon on the desktop. **b.suite** automatically detects the braille device connected over USB or paired over Bluetooth.

It then displays its application menu: `explorer homework preferences eole-library wikipedia translation teamviewer dictionary weather shutdown` .

Using a menu

A menu appears as a single line made up of labels. These labels may contain several words; in that case braille dot 8 replaces the space as the word separator.

The first label is the menu title, followed by the `:` character. The following labels are actionable buttons separated by spaces. Braille dots 7 and 8 blink under the first character of the focused button. The focused button is the one triggered with `9A` on the braille keyboard.

Menu buttons can also be activated with keyboard shortcuts by typing the shortcut letter directly while the menu is displayed. The shortcut letter is indicated by a raised braille dot 8.

When a menu opens, the start of the braille display shows the focused object.

There are two ways to move through a menu:

1. Move the braille display forward or backward across the menu, then activate a button with a stronger press on a routine cursor above it.
2. Move focus across the buttons with the right or left arrows on the right pad. The display moves so the focused button appears at the start of the display. You can then activate it with `9A` .

Using a dialog box

A dialog box presents objects with associated values, some of which may be editable.

A dialog box looks like a menu and is operated the same way. It generally contains an **Ok** button to validate and close, and a **Cancel** button to discard changes. The **Cancel** button is present only in dialog boxes where changes are possible.

As with menus, blinking dots 7 and 8 show the focused item. A raised dot 8 indicates the shortcut letter that can be triggered with `Alt+letter` on a PC keyboard or `8A` plus the braille letter combination on the braille keyboard.

Besides buttons, a dialog box may contain:

- text objects
- editable objects
- list objects
- date objects

Editable objects, list objects, and date objects have a name and an associated value. They are displayed as `name-value` . Text objects are informational only and are displayed as `name` .

Editable objects allow their value to be changed. Acting on an editable box displays blinking dots 7 and 8 under each character of its value, indicating that the text is selected. Typing characters on the braille keyboard replaces this value. Acting on the editable box again closes editing.

List objects let you select a value from a predefined list. Focus the list and scroll through the values with the up and down arrows.

Date objects allow day, month, and year to be modified separately, either by direct digit entry or with arrows.

Applications

File explorer

The file explorer shows the folders and files contained in the current folder. Initially this is the user's `Documents` folder, but it can be redefined in preferences.

Options make it possible to restrict navigation above `Documents`, show or hide hidden files, and define the font size.

To organize documents, the explorer provides functions to create or delete subfolders and to copy or move items from one folder to another.

The explorer can compress and extract `.zip` archives, import a file into an existing document, manage `.bsuite` templates, and convert some files to Markdown.

When opening an `.odt` document, **b.suite** can also recognize most embedded LibreOffice mathematical formulas and convert them into the braille math in use.

Presentation and navigation in the current folder

Folders, then files, are shown in alphabetical order. Each item corresponds to one braille line, and you move through the list with the up or down arrow on the right pad.

Acting on a folder opens it and makes it the current folder.

Acting on a file opens it if its format is recognized. Depending on the file type, **b.suite** opens the text editor, the music editor, or the DAISY reader. Commonly supported formats include `.bsuite`, `.txt`, `.brf`, `.csv`, `.rtf`, `.mbe`, `.odt`, `.docx`, `.pdf`, `.epub`, `.html`, `.md`, `.markdown`, `.bxml`, `.musicxml`, and `.zip` for DAISY books.

Each entry is prefixed with `f` or `d` to indicate its type. File size is displayed after the file name.

Moving the braille display backward shows the current folder name. A strong press on the routing cursors above this name opens the parent folder. Braille key 9 (Correction) can also be used for this action.

Incremental search is available by typing characters. Once a match is found, `F3` moves to the next one.

Multiple selection

Copy and cut can operate on a list of files. The explorer therefore allows a set of folders/files to be selected.

A selected item is prefixed with `s` ; an unselected item is prefixed with `n` .

To start a selection, use **Edit > Start selection** or `F8` . To end it, use **Edit > End selection** or `Esc` . While selection mode is active, press `Space` to select or deselect the current item.

To select all contents of the current folder, use **Edit > Select all** or `Ctrl+A` .

Recycle bin

Deleted files and folders are placed in the Windows recycle bin. You can view its contents, restore mistakenly deleted items, or permanently delete the items stored there.

Note: recycle-bin management is the user's responsibility. It keeps filling up after each deletion, so its contents must occasionally be cleaned.

File explorer menu

The file explorer menu is displayed after pressing the down key on the left pad (`b.note`) or the lower-left joystick (`b.book`). Pressing the same control again returns to the explorer.

File menu

- **New:** opens a submenu.
- **Import as...:** opens a compatible document while explicitly choosing its primary and secondary braille.
- **Eject USB drive:** safely removes a USB key.
- **Send via Bluetooth...:** sends the selected file to a Bluetooth device compatible with file transfer, for example a `b.note` already paired in Windows.
- **Receive via Bluetooth...:** waits to receive a Bluetooth file and saves it in the current folder, or in the selected folder if the current item is a folder.
- **Rename (`F2`):** renames a file or folder.
- **Delete (`Del`):** moves selected files and folders to the recycle bin.
- **Compress:** creates a compressed file from the first selected item.
- **Extract:** extracts the selected zip file.
- **Empty recycle bin:** permanently deletes all files in the recycle bin.
- **Set as default folder:** defines the current folder as the explorer's default folder.
- **Properties:** opens a dialog box with information about selected folders/files.
- **Set as template:** adds a `.bsuite` file to the list of templates.
- **Delete a template:** removes a file from the list of templates.
- **Convert to Markdown:** creates an `.md` file in the current folder from the selected document. This command is offered for `.pdf` , `.docx` , `.pptx` , `.xlsx` , and `.xls` files.

File > New menu

- **Preferred... (`Ctrl+N`):** creates a new file in the current folder. You must enter the desired file name. The file properties, such as primary and secondary braille types, match those defined in **Preferences > Editor**.
- **Template...:** creates a file from a previously created template file. The file name is requested. The primary braille type, secondary braille type, and optional text content are applied according to the template.

- **Choose...:** creates a file by choosing its primary braille type, secondary braille type, and file name.
- **BXML:** creates a Eurobraille-specific musical braille file in BXML format.
- **MusicXML:** creates a musical braille file in standard MusicXML format.
- **Folder (`Ctrl+Shift+N`):** creates a new folder in the current folder.

Edit menu

- **Start / End selection (`F8` / `Esc`):** enters and exits selection mode; see the multiple selection section.
- **Cut (`Ctrl+X`):** same as copy, except that the original items are automatically deleted after paste.
- **Copy (`Ctrl+C`):** copies all selected files and folders to the clipboard. This only references the folders/files in the clipboard, so paste must be performed before deleting or renaming selected items.
- **Paste (`Ctrl+V`):** places all copied or cut files and folders in the current folder.
- **Select all (`Ctrl+A`):** selects all folders/files in the current folder.
- **Refresh (`F5`):** rebuilds the displayed folder/file list.

Go to menu

- **My documents:** shows the contents of the `My Documents` folder where your documents are stored.
- **Recycle bin:** shows the recycle bin folder where deleted files are stored.
- **Drives:** shows disk drives.
- **Parent folder:** shows the contents of the parent folder.
- **Default folder:** shows the folder defined in **Preferences > Explorer** as the folder to display when the explorer opens.

Recycle bin menu

In this folder, some menu functions are removed. The File menu appears as follows, and cut, copy, and paste disappear from the Edit menu:

File menu

- **Restore:** restores all selected files and folders in the recycle bin to their original location, before they were moved to the recycle bin.
- **Empty recycle bin:** permanently deletes all folders and files contained in the recycle bin.
- **Eject USB drive:** safely removes a USB key.

Editor

The editor shows the content of a text document made up of paragraphs.

Paragraphs are split into lines with a fixed number of characters defined by the user. By default, this number matches the number of cells on the braille display.

The editing cursor is represented by blinking dots 7 and 8 under the character following the insertion point. Selected text is also indicated with blinking dots 7 and 8.

A document has two braille types, called primary and secondary. You can switch from one to the other using tags, which are notable text sequences. These tags can be modified by the user like any other document characters. The user is

responsible for keeping them consistent; for example, a closing tag must be deleted if its opening tag is deleted. An emphasis tag can be used to make a character sequence bold.

The editor's native `.bsuite` format saves the primary and secondary braille types with the document.

The editor document model is based on character translations of the displayed braille. Therefore, copying and pasting an English braille word into a French section may show different braille combinations.

Moving the braille display forward or backward with the display keys or a light routing-cursor press moves the cursor to the beginning of the display only when no text is selected. This means forward and backward movement can be used to view the text selection.

The editor menu includes file, edit, bookmark, search, math, insert, speech, view, and tools commands.

Math support has been strengthened for several StarMath notations, especially around large blocks, matrices, some operator aliases, and various trigonometric or statistical functions.

The editor menu is displayed after pressing the down key on the left pad of b.note or the lower-left joystick on b.book. Pressing the same control again returns to the editor.

File

- **Close** (`Ctrl+F4`): closes the document. If it was modified, saving is offered.
- **Save** (`Ctrl+S`): saves the changes.
- **Print** (`Ctrl+P`): opens the print dialog. It lets you choose a physical printer, paper format, portrait or landscape orientation, and number of copies. If no printer is available, **b.suite** indicates this in the dialog box.
- **Clean**: removes all consecutive series of blank lines from the document. This is useful after importing a `.pdf` file, for example, where blank lines can be numerous.
- **Export** (`Ctrl+E`): saves the document in the format and folder selected in preferences, under Editor.
- **Export as...**: lets you choose the export format for this operation without changing the default preference.
- **Import**: opens a file from the current document folder and loads its content into the editor.
- **Optical character recognition...**: recognizes text from an image, PDF, or WEBP file using an OCR engine and adds it to the current document. This function requires **Tesseract OCR** to be installed on the computer.
- **Properties** (`F1`): displays a dialog box showing the number of paragraphs, words, and characters in the document.

Edit

- **Start / End selection** (`F8` / `Esc`): enters and exits selection mode. In this mode, cursor movement commands extend the selection.
- **Cut** (`Ctrl+X`): copies the selected text to the clipboard and deletes it from the document.
- **Copy** (`Ctrl+C`): copies the selected text to the clipboard.
- **Paste** (`Ctrl+V`): pastes the clipboard contents into the document at the cursor position.
- **Select all** (`Ctrl+A`): selects the whole document.
- **Bookmarks**: opens a submenu.
- **Find / Replace**: opens a submenu.
- **Undo** (`Ctrl+Z`): cancels the last operation. A series of keystrokes or deletions separated by less than 5 seconds is treated as one operation.
- **Redo** (`Ctrl+Y`): restores the previously undone operation.

- **Cursor:** displays a dialog box showing the cursor coordinates. These coordinates can be modified to move the cursor.

Edit > Bookmarks

- **Insert / Delete** (**Ctrl+F2** / **Ctrl+Shift+F2**): places a bookmark at the cursor position or removes it if one is already present there.
- **Next** (**F2**): moves the cursor down through the document to the first bookmark encountered. If none is found, the move restarts at the beginning of the document.
- **Previous** (**Shift+F2**): moves the cursor up through the document to the first bookmark encountered. If none is found, the move restarts at the end of the document.
- **Delete all:** removes all bookmarks from the document.

Edit > Search

- **Find** (**Ctrl+F**): displays a dialog box to search for a character sequence in the text from the cursor position. See the Editor - Search appendix.
- **Next** (**F3**): selects the next occurrence of the searched text.
- **Previous** (**Shift+F3**): selects the previous occurrence of the searched text.
- **Replace** (**Ctrl+H**): displays a dialog box almost identical to the Find dialog box. It includes an additional field for the character sequence that will replace the found text.
- **Replace and next** (**F4**): replaces the searched text and selects the next occurrence.
- **Replace and previous** (**Shift+F4**): replaces the searched text and selects the previous occurrence.
- **Replace all** (**F5**): replaces all occurrences of the searched text with the replacement text.

Math

The editor can recognize and evaluate mathematical expressions. See the Editor - Mathematics appendix.

- **Calculate** (**Ctrl+M**): calculates the mathematical expression on the line where the cursor is located.
- **Fraction calculation:** calculates the mathematical expression and favors displaying the result as a fraction when possible.
- **Paragraph calculation** (**Ctrl+P**): calculates the mathematical expression on the line where the cursor is located.
- **Block calculation** (**Ctrl+T**): calculates mathematical expressions located in a set of consecutive paragraphs. Calculation starts from the first paragraph of the block regardless of the cursor position in that block.
- **MathML:** displays in a dialog box the MathML conversion of the mathematical expression where the cursor is located.
- **StarMath:** displays in a dialog box the StarMath (LibreOffice) conversion of the mathematical expression where the cursor is located.

Insert

- **Emphasized word:** inserts the braille sequence that starts an emphasized word.
- **Emphasized sequence:** inserts the braille start and end sequence for emphasized text.
- **Math:** opens the math insertion submenu.
- **Start / End secondary braille:** inserts the sequence that starts or ends secondary braille.
- **Custom braille marker:** opens a dialog box to define a braille type different from the primary or secondary type.
- **Date:** inserts the date at the cursor position in the form `weekday, day, month, year`, for example `Wednesday, March 25, 2020`.

Speech

- **Document** (`Ctrl+D`): starts reading the document from the paragraph where the cursor is located.
- **Paragraph** (`Ctrl+R`): starts reading the paragraph where the cursor is located.
- **Stop reading** (`Ctrl+Space`): stops the current reading.

View

- **Refresh** (`F6`): rebuilds the editor window.
- **Zoom in** (`Ctrl++`): increases the text size shown in the editor window.
- **Zoom out** (`Ctrl+-`): decreases the text size shown in the editor window.

Tools

- **Toggle QWERTY keyboard** (`Ctrl+K`): enables or disables braille-keyboard emulation from the PC keyboard.
- **Bramigraph** (`Ctrl+B`): enables or disables interpretation of bramigraph commands.

Preferences

The Preferences application presents all **b.suite** settings on a single page.

On this page, typing characters moves **b.suite** to the first line containing the typed sequence, making it easy to move quickly through the list. Once an occurrence is found, `F3` moves to the next one.

Acting on the displayed line opens the dialog box used to modify the setting.

Main sections

The main available sections are:

- **time and date**
- **user interface**: presentation, language, interface braille type, and behavior of some editing fields
- **explorer**: default folder, navigation restriction, hidden-file display, font size
- **editor**: line length, primary and secondary braille, document display, export, and font size
- **math**: angle format, result format, thousands separator
- **dictionary**: preferred dictionary opened by default
- **music**: settings specific to MusicXML and BXML documents
- **connection**: communication port with the device
- **speech and synthesis**: activation, typing echo, volume, speed, and voices associated with languages
- **braille simulator**
- **automatic startup**
- **update**: startup check, update channel, and b.suite version
- **about**: system information and power status

Preference details

Clock

- **Time**

- **Date**

User interface

- **Braille reading without cutting labels:** prevents object names from being truncated in the braille interface. This option can make long labels easier to read in menus, dialog boxes, and the preferences page.
- **Language:** defines the interface language.
- **Braille type:** defines the braille type used for interface labels.
- **Braille type for contracted editing lines:** defines the braille behavior of editing fields when the interface uses contracted braille.

Explorer

- Default folder
- Restrict navigation
- Show hidden files
- Font size

Editor

- Line length
- Primary braille
- Secondary braille
- Display document
- Return to explorer when closing
- Automatically export when saving
- Export extension
- Show the document saved message
- Show the document exported message
- Font size

Math

- Angle
- Precision
- Format
- Thousands separator

Dictionary

- **Preferred dictionary:** defines the dictionary opened by default when the Dictionary application starts.

Music

Music preferences let you configure MusicXML and BXML behavior separately.

For each of these two formats, you can define in particular:

- the editing mode (`reading` , `listening` , `editing` , or `expert`);
- the braille type used for non-musical text, such as titles, indications, and lyrics;
- note presentation in 6 dots, 6 dots with groupings, or 8 dots;

- display of chords, fingering, clefs, and parts;
- measure display, including b123 bar line, number presence, announcement frequency, and section grouping;
- the order of an instrument's sub-parts;
- display of words, non-musical text, and lyrics.

For section display, **b.suite** lets you choose a by-part or by-section view, then display each section over the whole part, by system, or by number of measures.

Lyrics display can be disabled, placed after each note, before each section, or after each section.

In **reading** mode, the score can be consulted without modification and the audio menu is hidden. In **listening** mode, audio playback is available, but saving and export are disabled. In **editing** or **expert** mode, playback remains available and the file can be modified.

Depending on the format used, additional options may be available. For example, the `bxmL` format provides a specific karaoke setting.

When playback must speak or sing lyrics, **b.suite** uses `espeak-ng`. If this component is not installed, a warning message is displayed.

The **Order of an instrument's sub-parts** option lets you choose between **normal** and **reversed** order when reading instruments with several sub-parts.

The **Announce measure number** option enables or disables spoken measure-number announcements during music playback.

Speech and synthesis

- Enable speech
- Character echo
- Word echo
- Volume
- Speed
- Voices associated with languages

Connection, simulator, and startup

- Port
- Simulator visibility
- Simulator font size
- Automatic startup

Update

- **Check for updates at startup:** automatically displays information when a new **b.suite** version is available at launch.
- **Update channel:** selects, depending on configuration, the channel used for updates.
- **b.suite version:** shows the version currently in use and the status of the integrated updater. Depending on context, **b.suite** may indicate that no new version is available, that a new version is available, that there is no Internet access, or that the update tool is not active.

Acting on this line opens the update dialog box. If a new version is offered, you can start the download and installation. Installation finishes when **b.suite** closes.

About

This section groups information about the connected device and battery state.

From the **About** menu, it is also possible to open the main **b.suite** documentation, the music documentation, and the **What's New** document when they are present in the installation.

Shutdown

The **Shutdown** application opens a dialog box offering several end-of-session actions:

- **Shut down:** closes **b.suite** then shuts down the computer.
- **Restart:** closes **b.suite** then restarts the computer.
- **Extended standby:** requests hibernation.
- **Quit:** closes only **b.suite**.
- **Cancel:** closes the dialog box without action.

Eole Library

The **Eole** application provides access to the Eole media library catalog. It checks that valid access is available and requests authentication if needed.

Search can cover digital braille books or audio books. In advanced search mode, results can be filtered in particular by author, title, publisher, summary, genre, or age range.

Depending on the type of content searched, the offered audio medium can also be filtered. Results are shown in a list, with access to a summary and then to download the selected work.

Wikipedia

The Wikipedia application gives access to the online Wikipedia encyclopedia.

A dialog box lets you search Wikipedia and display the result in a new editor document so that it can be read and/or saved.

If the service is temporarily unavailable or Wikipedia applies rate limits, **b.suite** waits before sending a new request.

The Wikipedia search dialog box contains the following objects:

- a `Language` list object to choose the language to use,
- an editable `Search Wikipedia` object to enter the search text,
- a `Suggestion` list object that lists Wikipedia articles found from the searched text,
- an `Summary only` checkbox to display a full Wikipedia page or only a summary,

- a `Number of sentences` list object to indicate the number of sentences in the summary; this object is visible only when `Summary only` is checked,
- an `Ok` button object that displays, in a new editor document, the Wikipedia page matching the selected `Suggestion` ,
- a `Cancel` button object that closes the dialog box without doing anything.

Translation

The Translation application provides an online translation dictionary.

A dialog box lets you choose source and target languages, enter the text to translate, display the translated text, copy it to the clipboard, and swap languages.

The Translation dialog box contains the following objects:

- a `Translate from` list object to choose the language of the text to translate,
- a `Translate to` list object to choose the language used for the translation,
- an editable `Text` object to enter the text to translate,
- an editable `Translation` object to display the translated text,
- a `Suggestion` list object,
- a `Copy to clipboard` button object that copies the translated text to the clipboard,
- a `Swap languages` button object that swaps the two choices from `Translate from` and `Translate to` ; the text that was in `Translation` is placed in `Text` and the translation is performed,
- an `Ok` button object that closes the Translation dialog box.

TeamViewer

The TeamViewer tool starts TeamViewer, if necessary, and displays your TeamViewer ID and password in a dialog box. The `Ok` button closes the dialog box.

Homework

The **Homework** application lets you manage assignments sorted by date and, if needed, by subject.

Each assignment contains a date and may also contain a subject, a description, a done/not-done state, and one or more attachments linked to existing files.

The application displays a list of assignments and several menus:

- **Homework:** close the application, create, edit, or delete an assignment, mark an assignment as done or not done, and manage subjects.
- **Selection:** start or end multiple selection, then select several assignments at once.
- **Date:** display assignments for today, tomorrow, from tomorrow, over a custom period, or return to all assignments.
- **Filters:** filter by subject or text, hide assignments already done, reset filters, or show their summary.

Main shortcuts include `Ctrl+N` to create an assignment, `Enter` to edit it, `Del` to delete it, `Ctrl+D` to mark it as done, and `Ctrl+Shift+D` to mark it as not done.

In the list, the left and right arrows move respectively to the previous day or next day. Assignments and no-result messages display the full date with the weekday, making the information more explicit. Subjects can be created, renamed, merged, or deleted from subject management.

The reset filters command removes subject filters, text filters, and hiding of completed assignments while keeping the current period or date display. Date entry in assignment dialog boxes is specialized to make editing easier with the braille keyboard and the PC keyboard. When an attachment is no longer available, **b.suite** shows an explicit message when opening it.

Managing subjects

The **Manage subjects** dialog box shows the list of existing subjects and the **New**, **Rename**, **Delete**, and **Close** buttons. Focus is placed on the subject list when it opens.

The **New** button opens an input dialog box to create a subject. The **Rename** button modifies the selected subject; acting directly on a subject in the list also starts this rename. If the new name matches an already existing subject, **b.suite** offers to merge the two subjects.

The **Delete** button first asks for confirmation. If the subject is still used by one or more assignments, **b.suite** displays a second message allowing the subject to be deleted while detaching linked assignments, which are then kept without an associated subject.

Creating an assignment

The **New assignment** command opens an input dialog box. When it is opened from the assignment list, the default date is the currently displayed day. Focus is placed on the date field and its contents are selected to allow immediate input.

The dialog box contains the following elements:

- **Date:** assignment date input field.
- **Subject:** list used to choose an existing subject or leave the assignment without a subject.
- **Description:** text field for the assignment content.
- **Attachments:** list of files linked to the assignment, with **Open attachment**, **Add attachment**, and **Remove attachment** buttons.
- **Done:** checkbox indicating whether the assignment is already complete.
- **Ok** and **Cancel:** validation or discard buttons.

The date is mandatory. The date field can either be filled by directly typing the day, month, and year digits, or by modifying each part with the arrows. Left and right arrows move the selection between day, month, and year, while up and down arrows increase or decrease the selected part.

The **Add attachment** button opens a file picker. Attachments are stored as links to the original files. The same attachment is not added twice. When an attachment is selected, **Open attachment** opens the corresponding file and **Remove attachment** removes it from the list.

The **Edit** command reuses this same dialog box with the assignment information already filled in. The existing **Done** state and attachments are kept.

Dictionary

The Dictionary application groups several encyclopedias and dictionaries.

This application contains an area with 3 objects and a read-only result area.

- a `Dictionary` list object to choose the dictionary to use,
- an editable `Search` object to enter the definition to search for. Pressing up/down arrows, using bramigraph commands or the right pad of the braille device, moves to the previous/next definition in the dictionary,
- a `Definition` button object to access the read-only area containing the definition. Note: the Tab key can be used to cycle between the different objects, including the read-only result area.

The list of encyclopedias/dictionaries is:

- Encyclopedia
- Common nouns
- French-German
- French-English
- French-Spanish
- French-Italian
- French-Dutch
- German-French
- English-French
- Spanish-French
- Italian-French
- Dutch-French

The dictionary opened when the application starts can be chosen in preferences, under **dictionary**, with the **preferred dictionary** setting.

Weather

The Weather application lets you consult a weather forecast from a place name.

The dialog box includes:

- a search field for the place
- a list of matching places
- a list of forecast dates
- a field showing the minimum and maximum temperature range
- a field showing the expected precipitation total

Technical appendices

The technical reference appendices below keep the original braille values and reference tables intact.

Appendix - Editor - Braille tags

The editor handles braille documents in which notable character sequences called tags can be found. These tags can be modified by the user like any other set of characters in the document. It is the user's responsibility to keep them consistent, for example by deleting an end tag when deleting a start tag. These tags make it possible to define character decoration (emphasis) or to change the braille type.

Character decoration

The `b456` emphasis tag, which corresponds to the cedilla character, is used to indicate text sequences in bold, italic, or underline. That is: Emphasized word: `b456` followed by the word Several emphasized words: `b25,b456,1e_rmot, autres_mots, b456, dernier_mot`

When the document is exported, emphasized characters are exported as bold characters in formats where that is possible.

Primary and secondary braille type

Text is displayed in braille according to a braille type that defines:

- The language used
- The braille transcoding (computer braille, Grade 1 literary braille, Grade 2 contracted braille, mathematical braille, textual mathematical braille, Nemeth braille, musical braille)

A default braille type (primary type) is associated with the text paragraphs. An editor document has a primary braille type and a secondary braille type. By default, the primary braille type is used. **When staying in French**, use the following to switch to the secondary type:

- `b6` alone (only if the secondary braille is mathematical). It switches back to primary braille as soon as a space is encountered.
- `b6,b3` for the whole paragraph or until the next `b6b3` inside the paragraph.

When one of the two braille types is not French, use the following to switch to the secondary type:

- `b6,b6` for the whole paragraph or until the next `b6b6` inside the paragraph.

A conflict is possible because `b6` corresponds to the opening single quote, which may appear in a text. When a file is imported, this code is filtered.

In preferences, you can define which braille type will be associated with a new document. The same setting is also used to configure the braille types of an imported file.

Custom braille type

More complex tags can be used to define a braille type. They consist of:

- A language, for example `fr_FR` for French
- A `-` separator
- A grade: `0` , `1` , `2` , or mathematical `m`
- A trailing space to end the tag

Such a tag remains valid until the end of the paragraph or until another braille-type tag is encountered.

The editor menu `Insert > Custom braille marker` helps with writing these tags.

Appendix - Editor - Export

A document can be exported in `.txt` , `.odt` , and `.pdf` formats.

To keep things simple, document export is always performed into the folder containing the original file. The export file type is defined by a setting in `Preferences > Editor` .

Appendix - Editor - Search

Searching for a character sequence in the editor can be done either downward through the document (`F3`) or upward (`Shift+F3`).

Several settings refine the search:

- **Ignore case:** if enabled, an alphabetical character is matched regardless of case (uppercase/lowercase).
- **Ignore accents:** if enabled, a character is matched regardless of accents, so `é` , `è` , `ê` , `ë` , and `e` are treated as the same character.
- **Whole word:** if enabled, only complete words matching the search sequence are identified.

Appendix - Editor - Mathematics

Recognized elements

Delimiters

Name	Braille	LibreOffice
open parenthesis	236	(
closing parenthesis	356	)
bloc ouvert	56	{
closing block	23	}
crochet ouvert	12356	[
closing bracket	23456	]
opening brace	46,236	lbrace
closing brace	46,356	rbrace
label ouvert	5,56	"
closing quote	5,23	"
large open parenthesis	5,236	
large closing parenthesis	5,356	
grand crochet ouvert	5,12356	
large closing bracket	5,23456	
large opening brace	5,46,236	
large closing brace	5,46,356	

Operators

Name	Braille	LibreOffice
addition	235	+
soustraction	36	-
multiplication	35	times
fraction	34	over
division	25	div
equal	2356	=
modulo (reste de la division)	5,5,34	mod
exposant	4	^ ou sup ou rsup
indice	26	_ ou sub ou rsub

Name	Braille	LibreOffice
left superscript	6,4	lsup
left subscript	6,26	lsub
suscrit	4,4	csup
souscrit	26,26	csub

Functions

Name	Braille	LibreOffice
square root	345	sqrt
n-th root	4,345	nroot
pour cent	5,346	func "%"
pour mille	5,346,346	func "‰"
valeur absolue	123456	abs
integer part	24,1345,2345	lfloor rfloor
factorielle	456,35	fact
natural logarithm	123,1345	ln
logarithme base 10	123,135,1245	log

Comparisons

Name	Braille	LibreOffice
equal	2356	=
not equal	46,2356	<> or neq
approximately equal	5,2356	approx
greater than	5,345	> or gt
less than	5,126	< or lt
greater than or equal	45,345	>= or geslant
less than or equal	45,126	<= or leslant
much greater than	5,5,345	>> ou gg
much less than	5,5,126	<< ou ll

Name	Braille	LibreOffice
congruent	2356,2356	equiv
not congruent	46,2356,2356	!equiv

Geometry

Name	Braille	LibreOffice
parallel	456,1256	parallel
perpendicular	45,1256	ortho
vector	46,25	widevec or vec
norm	45,123456	ldline rdline
dot product	35,35	cdot
cross product	45,35	and
tensor product	46,35	otimes
direct sum	46,235	oplus

Arrows

Name	Braille	LibreOffice
left arrow	456,246	leftarrow
right arrow	456,156	rightarrow
up arrow	45,12456	uparrow
down arrow	46,12456	downarrow
up-right arrow	45,156	uprightrightarrow
down-right arrow	46,156	downrightrightarrow

Sets

Name	Braille	LibreOffice
ensemble vide	45,3456	emptyset
infini	45,14	infinity
asterisk	5,35	*

Name	Braille	LibreOffice
for all	456,34	forall
there exists	456,16	
element of	45,16	in
not element of	45,34	notin
contains as member	46,45,16	owns
does not contain as member	46,45,34	func ! owns
strict inclusion	46,16	subset
non strict inclusion	46,34	nsubset
non-strict inclusion	456,46,16	subseteq
non non-strict inclusion	456,46,34	nsubseteq
strict contains	5,16	
non strict contains	5,34	nsupset
non-strict contains	456,5,16	supseteq
non non-strict contains	456,5,34	nsupseteq
union	456,235	union
large union	456,456,235	
intersection	45,235	intersection
strict intersection	45,45,235	

Trigonometry

Name	Braille	LibreOffice
sine	234,24,1345 ou 346	sin
cosine	14,135,234 ou 46,346	cos
tangent	2345,1,1345 ou 2346	tan
cotangent	14,135,2345 ou 46,2346	cot
arc sine	1,1235,14,2344,24,1345 ou 45,346	arcsin
arc cosine	1,1235,14,14,135,234 ou 45,46,346	arccos
arc tangent	1,1235,14,2345,1,1345 ou 45,2346	arctan

Name	Braille	LibreOffice
arc cotangent	1,1235,14,14,135,2345 ou 45,46,2346	arccot
sine hyperbolique	234,24,1345,125	sinh
cosine hyperbolique	14,135,234,125	cosh
tangent hyperbolique	23445,1,1345,125	tanh
cotangent hyperbolique	14,135,2345,125	coth
hyperbolic arsine	1,1235,234,24,1345,125	arsinh
hyperbolic arc cosine	1,1235,14,135,234,125	arcosh
arg tangent hyperbolique	1,1235,23445,1,1345,125	artanh
arg cotangent hyperbolique	1,1235,14,135,2345,125	arcoth
conversion to radians	1235,1,145	func rad
conversion to degrees	145,15,1245	func deg

Statistics

Name	Braille	LibreOffice
sum	234,135,134	func som
number of elements	1345,12	func nb
maximum	134,1,1346	func max
minimum	134,24,1345	func min
mean	134,135,13456	
quartile 1	12345,136,1,16	
quartile 2 or median	12345,136,1,126	
quartile 3	12345,136,1,146	
variance	1236,1,1235	
standard deviation	15,14,1,1235,2345	
combination	14,135,134,12,24,1345	
arrangement	1,1235,1235,1,1345,1245	

Lowercase Greek letters

Name	Braille	LibreOffice
alpha	45,1	%alpha
beta	45,12	%beta
gamma	45,1245	%gamma
delta	45,145	%delta
epsilon	45,15	%epsilon
zeta	45,1356	%zeta
eta	45,125	%eta
theta	45,245	%theta
iota	45,24	%iota
kappa	45,13	%kappa
lambda	45,123	%lambda
mu	45,134	%mu
nu	45,1345	%nu
xi	45,1346	%xi
omicron	45,135	%omicron
pi	45,1234	%pi
rho	45,1235	%rho
sigma	45,234	%sigma
tau	45,2345	%tau
upsilon	45,136	%upsilon
phi	45,124	%phi
chi	45,12345	%chi
pSI	45,13456	%psi
omega	45,2456	%omega

Uppercase Greek letters

Name	Braille	LibreOffice
Alpha	46,45,1	%ALPHA

Name	Braille	LibreOffice
Beta	46,45,12	%BETA
Gamma	46,45,1245	%GAMMA
Delta	46,45,145	%DELTA
Epsilon	46,45,15	%EPSILON
Zeta	46,45,1356	%ZETA
Eta	46,45,125	%ETA
Theta	46,45,245	%THETA
Iota	46,45,24	%IOTA
Kappa	46,45,13	%KAPPA
Lambda	46,45,123	%LAMBDA
Mu	46,45,134	%MU
Nu	46,45,1345	%NU
Xi	46,45,1346	%XI
Omicron	46,45,135	%OMICRON
Pi	46,45,1234	%PI
Rho	46,45,1235	%RHO
Sigma	46,45,234	%SIGMA
Tau	46,45,2345	%TAU
Upsilon	46,45,136	%UPSILON
Phi	46,45,124	%PHI
Chi	46,45,12345	%CHI
Psi	46,45,13456	%PSI
Omega	46,45,2456	%OMEGA

Constants

Name	Braille	LibreOffice	Value
pi	45,1234	%pi	3,14...
e	15	e	2,72...

Appendix - Command keyboard shortcuts

b.note

Upper left pad: Opens the internal b.note menu

Lower left pad: Opens the bsuite application menu

Left pad right: Moves the display forward

Left pad left: Moves the display backward

Upper left pad + left: Opens the main **b.suite** menu

Lower left pad + left: Decreases volume

Lower left pad + right: Increases volume

Upper right pad: Up arrow

Lower right pad: Down arrow

Right right pad: Right arrow

Right left pad: Left arrow

Upper right pad + left: Start of document (equivalent to `Ctrl+Home` on a PC keyboard)

Upper right pad + right: End of document (equivalent to `Ctrl+End` on a PC keyboard)

Lower right pad + left: Start of line

Lower right pad + right: End of line

b.book

Forward: Moves the display forward

Backward: Moves the display backward

C1 : Escape

C2 : Tab

C3 : Shift (Maj.)

C4 : Ctrl

C5 : Alt

C6 : Insert

C1 + C3 : Launch Esysuite

C4 + C6 : Opens the internal b.book menu

C1+C2+C3 : Start of document (equivalent to `Ctrl+Home` on a PC keyboard)

C4+C5+C6 : End of document (equivalent to `Ctrl+End` on a PC keyboard)

Left joystick center: Opens the main **b.suite** menu

Left joystick down: Opens the **b.suite** application menu

Left joystick right: Moves the display forward

Left joystick left: Moves the display backward

Right joystick down: Down arrow

Right joystick right: Right arrow

Right joystick left: Left arrow

Right joystick up: Up arrow

Appendix - Braille keyboard shortcuts

General

Ctrl++ : Zoom in
Ctrl+- : Zoom out
Ctrl+A : Select all
Ctrl+X : Cut
Ctrl+C : Copy
Ctrl+V : Paste
Ctrl+Tab / Ctrl+Maj_Tab : Switch from one application to another
F12 : Displays battery information, time, and date.

Menu / Dialog box

Home: First item
End: Last item
Right: Next item
Left: Previous item
Tab: Next item (exits edit mode in dialog boxes)
Shift+Tab: Previous item (exits edit mode in dialog boxes)
Enter: Activates the default button

Editor

FONCTIONS :

Ctrl+S : Save
F2 : Go to next bookmark
Maj+F2 : Go to previous bookmark
Ctrl+F2 : Insert/Delete bookmark
Ctrl+Maj+F2 : Delete all bookmarks
Ctrl+F4 : Close document with save prompt
Ctrl+F : Search
Ctrl+H : Search and replace
F3 : Next search result
Maj+F3 : Previous search result
F4 : Replace and search next
Maj+F4 : Replace and search previous
F5 : Replace all
F8 : Start selection
Escape : End selection / End incremental search
Ctrl+D : Read document from the current paragraph

Ctrl+R : Read current paragraph
Ctrl+espace : Stop speech reading
Ctrl+M : Evaluate current math line
Ctrl+T : Evaluate math block
Ctrl+Z : Undo last input
Ctrl+Y : Redo last input
Ins+F : Enter incremental search mode / Esc to exit

CURSOR MOVEMENT (with Shift or after F8 , modifies the selection):

Home: Start of line
End: End of line
Right: Character to the right
Left: Character to the left
Up: Previous line
Down: Next line
Page down: Move 20 lines toward the end of the document
Page up: Move 20 lines toward the start of the document
Ctrl+Home: Start of document
Ctrl+End: End of document
Ctrl+Right: Next word
Ctrl+Left: Previous word
Ctrl+Up: Previous paragraph
Ctrl+Down: Next paragraph
Ctrl+Page down: Move 50 lines toward the end of the document
Ctrl+Page up: Move 50 lines toward the start of the document

File explorer

Ctrl+n : New preferred file
Ctrl+Maj+n : New folder
F2 : Rename selected file or folder
F3 : Next search result (for incremental search)
F5 : Refresh the current folder (very useful for the Bluetooth folder)
F8 : Start selection
Escape : End selection
Space : Toggle selection of the current item
Correction key: Display the parent folder
Delete: Delete selected files/folders
Home: First item in the file list
End: Last item in the file list

Appendix - 6-dot braille tables

These definitions are complete for French and provide, for the other languages, the definitions of the most common characters.

Full 6-dot braille characters - French

Prefix:

lettre en uppercase - 46

mot en uppercase - 46, 46

nombre - 6

Alphabetic characters

(LatinLetterDef6Dots)

a - 1

b - 12

c - 14

d - 145

e - 15

f - 124

g - 1245

h - 125

i - 24

j - 245

k - 13

l - 123

m - 134

n - 1345

o - 135

p - 1234

q - 12345

r - 1235

s - 234

t - 2345

u - 136

v - 1236

w - 2456

x - 1346

y - 13456

z - 1356

Names

0 - 3456

1 - 16

2 - 126

3 - 146

4 - 1456

5 - 156

6 - 1246
7 - 12456
8 - 1256
9 - 246

Special characters

, - 2 - comma
; - 23 - semicolon
: - 25 - deux-points
. - 256 - point
? - 26 - point d'interrogation
! - 235 - point d'exclamation
" - 2356 - quotation mark
(- 236 - opening parenthesis
) - 356 - closing parenthesis
' - 3 - apostrophe
« - 2356 - opening French quotation mark
» - 2356 - closing French quotation mark
[- 45-236 - crochet droit ouvrant
] - 356-12 - crochet droit fermant
{ - 6-6-236 - accolade gauche
} - 356-3-3 - accolade droite
+ - 235 - plus
- - 36 - tiret
* - 35 - asterisk
/ - 34 - barre oblique
= - 2356 - equal sign
(- 236 - open parenthesis
) - 356 - closing parenthesis
25 - divided by
< - 5-126 - less than
> - 5-345 - greater than
, - 456 - cedilla
\ - 5-34 - backslash
@ - 345 - arobase
% - 5-346 - pourcent
‰ - 5-346-346 - pour mille
* - 5-35 - asterisk
_ - 5-36 - underscore
` - 6 - acute accent
| - 456 - barre verticale
© - 5-14 - copyright
° - 5-135 - degree
& - 5-123456 - ampersand
¢ - 45-14 - cent
€ - 45-15 - euro
£ - 45-123 - livre

\$ - 45-234 - dollar

¥ - 45-13456 - yen

¤ - 6-45 - currency symbol

§ - 5-1234 - paragraph sign

^ - 4 - circumflex accent

¼ - 16-34-1456 - un quart

½ - 16-34-126 - un demi

¾ - 146-34-1456 - trois quarts

~ - 5-26 - tilde

Accented characters

ç - 12346 - c cedilla

œ - 246 - oe ligature

ã - 5-26-1 - a tilde

à - 12356 - a with grave accent

è - 2346 - e with grave accent

ù - 23456 - u with grave accent

â - 16 - a with circumflex accent

ê - 126 - e with circumflex accent

î - 146 - i with circumflex accent

ô - 1456 - o with circumflex accent

û - 156 - u with circumflex accent

á - 12356 - a with acute accent

é - 123456 - e with acute accent

ó - 346 - o with acute accent

ú - 23456 - u with acute accent

ë - 1246 - e with diaeresis (ë)

ï - 12456 - i with diaeresis (ï)

ö - 246 - o with diaeresis (ö)

ü - 1256 - u with diaeresis (ü)

Full 6-dot braille characters - Spanish

Prefix:

lettre en uppercase - 46

mot en uppercase - 46, 46

nombre - 3456

a - 1

b - 12

c - 14

d - 145

e - 15

f - 124

g - 1245

h - 125

i - 24
j - 245
k - 13
l - 123
m - 134
n - 1345
o - 135
p - 1234
q - 12345
r - 1235
s - 234
t - 2345
u - 136
v - 1236
w - 2456
x - 1346
y - 13456
z - 1356
0 - 3456, 245
1 - 3456, 1
2 - 3456, 12
3 - 3456, 14
4 - 3456, 145
5 - 3456, 15
6 - 3456, 124
7 - 3456, 1245
8 - 3456, 125
9 - 3456, 24
. - 3
; - 23
: - 25
! - 235
? - 26
(- 126
) - 345
Not bijective <[-á>-b12356
Not bijective <]-ú>-b23456
{ - 5, 123
} - 456, 2
á - 12356
é - 2346
í - 34
ó - 346
ú - 23456
ü - 1256
ñ - 12456
" - 236

\$ - 456, 234
 Not bijective <€-□>-b456, 15
 £ - 5, 2346
 ¢ - 45, 14
 ¥ - 456, 13456
 & - 6, 12346
 Not bijective <#-.\12567/xjjbc.>-b3, 12567, 1346, 245, 245, 12, 14, 3
 @ - 5
 % - 456, 356
 Not bijective <%o-.\12567/xbjcj.>-b3, 12567, 1346, 12, 245, 14, 245, 3
 * - 35
 Not bijective <+!>-b235
 = - 2356
 - - 36
 Not bijective <_-.\12567/xjjef.>-b3, 12567, 1346, 245, 245, 15, 124, 3
 / - 6, 2
 \ - 5, 3
 | - 456
 < - 246
 Not bijective <>-o>-b135
 Not bijective <§-.\12567/xjjag.>-b3, 12567, 1346, 245, 245, 1, 1245, 3
 μ - 4, 134
 ¼ - 3456, 2, 145
 ½ - 3456, 2, 12
 ¾ - 3456, 25, 145

Full 6-dot braille characters - German

Prefix:

lettre en uppercase - 46

mot en uppercase - 45

fin de uppercase - 6

nombre - 3456

Alphabetic characters

a - 1

b - 12

c - 14

d - 145

e - 15

f - 124

g - 1245

h - 125

i - 24

j - 245

k - 13

l - 123
m - 134
n - 1345
o - 135
p - 1234
q - 12345
r - 1235
s - 234
t - 2345
u - 136
v - 1236
w - 2456
x - 1346
y - 13456
z - 1356
& - 12346
% - 123456
{ - 12356
~ - 2346
} - 23456

nombres

1 - 1
2 - 12
3 - 14
4 - 145
5 - 15
6 - 124
7 - 1245
8 - 125
9 - 24
0 - 245

Accented characters

ä - 345
ö - 246
ü - 1256
ß - 2346

Special characters

, - 2
; - 23
: - 25
/ - 256
? - 26
+ - 235
= - 2356

(- 236
* - 35
) - 356
. - 3
-- 36
| - 34
` - 345
- 3456
" - 236
! - 235
> - 45
\$ - 46
_ - 456
< - 56
' - 6
{ - 12356
| - 34
} - 23456
~ - 2346
\$ - 4-234
@ - 4-345
[- 6-2356
\ - 4-34
] - 6-2356
_ - 4-456
j - 6-235
¢ - 4-14
£ - 4-123
¤ - 0
¥ - 4-13456
| - 5-36
" - 0
© - 2356-45-14-2356
ª - 1
« - 236
¬ - 4-25-35
® - 6-2356-45-1235-2356
— - 0
° - 4-356
± - 235-36
² - 34-23
³ - 34-25
´ - 6-356
µ - 56-134
¶ - 0
· - 0
¸ - 0

¹ - 0
° - 135
» - 356
¼ - 3456-1-256
½ - 3456-1-23
¾ - 3456-14-256
ı̇ - 6-26
× - 236
÷ - 0
% - 123456
& - 12346
§ - 346

Full 6-dot braille characters - English (United Kingdom)

The English table has limitations in 6-dot braille. Use the English (US) table instead.

Full 6-dot braille characters - English (US)

Prefix:
lettre en uppercase - 6
mot en uppercase - 6, 6
nombre - 3456
fin - 56

Appendix - 8-dot braille tables

Computer 8-dot braille characters - French

The braille table used by **b.suite** corresponds to the computer braille table defined in 2007 by the Evolution du Braille Français commission for the CP-1252 character set.

ANSI code	Braille combination	Character description
0	123458	Null
1	1234678	start of heading
2	1258	start of text
3	123468	end of text
4	14578	end of transmission

ANSI code	Braille combination	Character description
5	158	Enquiry
6	12478	Acknowledge
7	12458	Bell
8	12578	backspace
9	124678	horizontal tab
10	24568	line feed
11	138	vertical tab
12	12378	form feed
13	13478	carriage return
14	13458	shift out
15	2368	shift in
16	123478	data link escape
17	1234578	device control 1
18	123578	device control 2
19	23478	device control 3
20	234578	device control 4
21	13678	negative acknowledgement
22	123678	Synchronization
23	245678	end of transmission block
24	134678	Cancel
25	12368	end of medium
26	15678	Substitute
27	125678	Escape
28	14678	file separator
29	12678	group separator
30	2357	record separator
31	2367	unit separator
32		Space

ANSI code	Braille combination	Character description
33	235	exclamation mark
34	2356	quotation marks
35	34568	Number sign
36	357	dollar sign
37	3468	percent sign
38	1234568	ampersand
39	3	Apostrophe
40	236	left parenthesis
41	356	right parenthesis
42	35	Asterisk
43	23578	Plus
44	2	comma
45	36	hyphen
46	256	period
47	34	slash
48	3456	Zero
49	16	One
50	126	Two
51	146	Three
52	1456	Four
53	156	Five
54	1246	Six
55	12456	Seven
56	1256	Height
57	246	Nine
58	25	colon
59	23	semicolon
60	238	Less than

ANSI code	Braille combination	Character description
61	235678	Equal
62	567	Greater than
63	26	point d'interrogation
64	345	a commercial, at, "arrobas"
65	17	a uppercase
66	127	b uppercase
67	147	c uppercase
68	1457	d uppercase
69	157	e uppercase
70	1247	f uppercase
71	12457	g uppercase
72	1257	h uppercase
73	247	i uppercase
74	2457	j uppercase
75	137	k uppercase
76	1237	l uppercase
77	1347	m uppercase
78	13457	n uppercase
79	1357	o uppercase
80	12347	p uppercase
81	123457	q uppercase
82	12357	r uppercase
83	2347	s uppercase
84	23457	t uppercase
85	1367	u uppercase
86	12367	v uppercase
87	24567	w uppercase
88	13467	x uppercase

ANSI code	Braille combination	Character description
89	134567	y uppercase
90	13567	z uppercase
91	23678	crochet gauche
92	348	backslash
93	35678	crochet droit
94	4	circumflex accent
95	578	underscore
96	6	grave accent
97	1	a lowercase
98	12	b lowercase
99	14	c lowercase
100	145	d lowercase
101	15	e lowercase
102	124	f lowercase
103	1245	g lowercase
104	125	h lowercase
105	24	i lowercase
106	245	j lowercase
107	13	k lowercase
108	123	l lowercase
109	134	m lowercase
110	1345	n lowercase
111	135	o lowercase
112	1234	p lowercase
113	12345	q lowercase
114	1235	r lowercase
115	234	s lowercase
116	2345	t lowercase

ANSI code	Braille combination	Character description
117	136	u lowercase
118	1236	v lowercase
119	2456	w lowercase
120	1346	x lowercase
121	13456	y lowercase
122	1356	z lowercase
123	2378	accolade gauche
124	4568	barre verticale
125	5678	accolade droite
126	38	tilde
127	1238	delete character
128	1578	euro
129	12345678	unused
130	67	low comma quotation mark
131	1248	lowercase hook f
132	56	low double comma quotation mark
133	368	points de suspension
134	3568	obelus
135	3567	double obelus
136	48	modifier letter circumflex accent
137	34678	pour mille
138	234678	s caron uppercase
139	57	left single quotation mark
140	2467	oe uppercase
141	12345678	unused
142	135678	z caron uppercase
143	12345678	unused
144	12345678	unused

ANSI code	Braille combination	Character description
145	68	reversed apostrophe quotation mark
146	37	apostrophe quotation mark
147	378	reversed double apostrophe quotation mark
148	678	double apostrophe quotation mark
149	124578	puce
150	478	tiret demi - cadratin
151	4578	tiret cadratin
152	467	petit tilde avec chasse
153	23458	marque de commerce
154	23468	s caron lowercase
155	58	right single quotation mark
156	2468	oe lowercase
157	12345678	unused
158	13568	z caron lowercase
159	145678	uppercase y with diaeresis
160	7	non-breaking space
161	2358	inverted exclamation mark
162	1478	centime
163	237	livre
164	45	currency symbol
165	25678	yen
166	458	barre verticale interrompue
167	12348	paragraph sign <indent>
168	46	diaeresis spacing mark
169	148	copyright
170	1678	feminine ordinal indicator
171	23568	left quotation mark
172	2567	negation

ANSI code	Braille combination	Character description
173	78	trait d'union conditionnel
174	12358	registered trademark
175	1348	macron avec chasse
176	267	degree
177	3678	plus ou moins
178	457	exposant deux
179	4567	exposant trois
180	5	spacing acute accent
181	257	micro
182	45678	pilcrow <end of paragraph>
183	8	middle dot
184	456	spacing cedilla
185	47	exposant un
186	2678	masculine ordinal indicator
187	23567	right quotation mark
188	1368	un quart
189	468	un demi
190	13468	trois quarts
191	268	inverted question mark
192	123567	a with grave accent uppercase
193	1235678	a with acute accent uppercase
194	167	a circumflex accent uppercase
195	178	a with tilde uppercase
196	34567	a diaeresis uppercase
197	27	a with ring uppercase
198	3457	uppercase ae ligature
199	123467	c cedilla uppercase
200	23467	e with grave accent uppercase

ANSI code	Braille combination	Character description
201	1234567	e with acute accent uppercase
202	1267	e circumflex accent uppercase
203	12467	e diaeresis uppercase
204	2478	i with grave accent uppercase
205	347	i with acute accent uppercase
206	1467	i circumflex accent uppercase
207	124567	i diaeresis uppercase
208	1278	eth uppercase
209	134578	n with tilde uppercase
210	13578	o with grave accent uppercase
211	3467	o with acute accent uppercase
212	14567	o circumflex accent uppercase
213	1378	o with tilde uppercase
214	24678	o diaeresis uppercase
215	3578	multiplication
216	345678	o uppercase slashed o
217	234567	u with grave accent uppercase
218	2345678	u with acute accent uppercase
219	1567	u circumflex accent uppercase
220	12567	u diaeresis uppercase
221	1345678	y acute accent uppercase
222	24578	thorn uppercase
223	2348	lowercase sharp s (German eszett)
224	12356	a with grave accent lowercase
225	123568	a with acute accent lowercase
226	168	a circumflex accent lowercase
227	18	a with tilde lowercase
228	34578	a diaeresis lowercase

ANSI code	Braille combination	Character description
229	28	a with ring lowercase
230	3458	lowercase ae ligature
231	12346	c cedilla lowercase
232	2346	e with grave accent lowercase
233	123456	e with acute accent lowercase
234	1268	e circumflex accent lowercase
235	12468	e diaeresis lowercase
236	248	i with grave accent lowercase
237	3478	i with acute accent lowercase
238	1468	i with circumflex accent lowercase
239	124568	i diaeresis lowercase
240	128	eth lowercase
241	1245678	n with tilde lowercase
242	1358	o with grave accent lowercase
243	346	o with acute accent lowercase
244	14568	o with circumflex accent lowercase
245	4678	o with tilde lowercase
246	358	o diaeresis lowercase
247	2578	division
248	568	lowercase slashed o
249	23456	u with grave accent lowercase
250	234568	u with acute accent lowercase
251	1568	u with circumflex accent lowercase
252	12568	u diaeresis lowercase
253	134568	y acute accent lowercase
254	2458	thorn lowercase
255	2568	y diaeresis lowercase

Computer 8-dot braille characters - Spanish

a - 1

b - 12

c - 14

d - 145

e - 15

f - 124

g - 1245

h - 125

i - 24

j - 245

k - 13

l - 123

m - 134

n - 1345

o - 135

p - 1234

q - 12345

r - 1235

s - 234

t - 2345

u - 136

v - 1236

w - 2456

x - 1346

y - 13456

z - 1356

A - 17

B - 127

C - 147

D - 1457

E - 157

F - 1247

G - 12457

H - 1257

I - 247

J - 2457

K - 137

L - 1237

M - 1347

N - 13457

O - 1357

P - 12347

Q - 123457

R - 12357

S - 2347
T - 23457
U - 1367
V - 12367
W - 24567
X - 13467
Y - 134567
Z - 13567
0 - 34678
1 - 16
2 - 126
3 - 146
4 - 1456
5 - 156
6 - 1246
7 - 12456
8 - 1256
9 - 246
. - 3
; - 23
: - 25
! - 2357
? - 26
(- 1268
) - 3457
[- 2367
] - 3568
{ - 46
} - 35
á - 12356
à - 123568
â - 18
ä - 3458
é - 2346
è - 23468
ê - 158
ë - 12468
í - 34
ì - 348
î - 248
ï - 258
ó - 346
ò - 3468
ô - 1358
ö - 2468
ú - 23456
ù - 234568

û - 1368
ü - 12568
ß - 128
ñ - 124568
ç - 123468
Á - 123567
À - 1235678
Â - 178
Ä - 34578
É - 23467
È - 234678
Ê - 1578
Ë - 124678
Í - 347
Ì - 345
Î - 2478
Ï - 1245678
Ó - 3467
Ò - 2458
Ô - 13578
Ö - 24678
Ú - 234567
Ù - 2345678
Û - 13678
Ü - 125678 Ñ - 124567
Ç - 1234678
" - 56
' - 4
\$ - 123467
€ - 12358
£ - 2378
¢ - 12678
¥ - 145678
& - 12346
- 3456
@ - 5
% - 456
Not bijective <%o-□>-b45678
* - 256
+ - 235
= - 2356
- - 36
_ - 6
/ - 3478
\\ - 123456
| - 4568
< - 236

> - 356
§ - 167
μ - 13468
¼ - 1467
½ - 468
¾ - 48

Computer 8-dot braille characters - German

a - 1
b - 12
c - 14
d - 145
e - 15
f - 124
g - 1245
h - 125
i - 24
j - 245
k - 13
l - 123
m - 134
n - 1345
o - 135
p - 1234
q - 12345
r - 1235
s - 234
t - 2345
u - 136
v - 1236
w - 2456
x - 1346
y - 13456
z - 1356
A - 17
B - 127
C - 147
D - 1457
E - 157
F - 1247
G - 12457
H - 1257
I - 247
J - 2457
K - 137

L - 1237
M - 1347
N - 13457
O - 1357
P - 12347
Q - 123457
R - 12357
S - 2347
T - 23457
U - 1367
V - 12367
W - 24567
X - 13467
Y - 134567
Z - 13567
0 - 346
1 - 16
2 - 126
3 - 146
4 - 1456
5 - 156
6 - 1246
7 - 12456
8 - 1256
9 - 246
. - 3
; - 23
: - 25
! - 5
? - 26
(- 236
) - 356
[- 123567
] - 234567
{ - 12356
} - 23456
á - 168
à - 123568
â - 1678
ä - 3458
é - 1234568
è - 23468
ê - 12678
ë - 12468
í - 1468
ì - 348
î - 14678

İ - 124568
ó - 14568
ò - 3468
ô - 145678
ö - 2468
ú - 1568
ù - 234568
û - 15678
ü - 12568
ß - 34568
ñ - 13458
ç - 1234678
Á - 28
À - 23678
Â - 167
Ä - 567
É - 1234567
È - 3578
Ê - 1267
Ë - 2358
Í - 258
Ì - 57
Î - 1467
Ï - 23568
Ó - 2568
Ò - 578
Ô - 14567
Ö - 358
Ú - 268
Û - 35678
Û - 1567
Ü - 2368
SS - 2347, 2347
Ñ - 2567
Ç - 123467
" - 4
' - 6
\$ - 46
Not bijective <€-□>-b457
£ - 467
¢ - 58
¥ - 468
& - 12346
- 3456
@ - 3457
% - 123456
Not bijective <%o-□>-b248

* - 35
+ - 235
= - 2356
- - 36
_ - 4567
/ - 256
\ - 347
| - 34
< - 56
> - 45
§ - 357
μ - 1348
¼ - 1368
½ - 12368
¾ - 13468

Computer 8-dot braille characters - Italian

a - 1
b - 12
c - 14
d - 145
e - 15
f - 124
g - 1245
h - 125
i - 24
j - 245
k - 13
l - 123
m - 134
n - 1345
o - 135
p - 1234
q - 12345
r - 1235
s - 234
t - 2345
u - 136
v - 1236
w - 2456
x - 1346
y - 13456
z - 1356
A - 17
B - 127

C - 147
D - 1457
E - 157
F - 1247
G - 12457
H - 1257
I - 247
J - 2457
K - 137
L - 1237
M - 1347
N - 13457
O - 1357
P - 12347
Q - 123457
R - 12357
S - 2347
T - 23457
U - 1367
V - 12367
W - 24567
X - 13467
Y - 134567
Z - 13567
0 - 346
1 - 16
2 - 126
3 - 146
4 - 1456
5 - 156
6 - 1246
7 - 12456
8 - 1256
9 - 246
. - 3
; - 23
: - 25
! - 5
? - 26
(- 236
) - 356
[- 123567
] - 234567
{ - 12356
} - 23456
á - 168
à - 123568

â - 1678
ä - 3458
é - 1234568
Not bijective <è-x>-b23468
ê - 12678
ë - 12468
í - 1468
ì - 348
î - 14678
ï - 124568
ó - 14568
ò - 3468
ô - 145678
ö - 2468
ú - 1568
ù - 234568
û - 15678
ü - 12568
ß - 34568
ñ - 13458
ç - 1234678
Á - 28
À - 23678
Â - 167
Ã - 567
É - 1234567
È - 3578
Ê - 1267
Ë - 2358
Í - 258
Ì - 57
Î - 1467
Ï - 23568
Ó - 2568
Ò - 578
Ô - 14567
Ö - 358
Ú - 268
Ù - 35678
Û - 1567
Ü - 2368
Ñ - 2567
Ç - 123467
" - 4
' - 6
\$ - 46
€ - 457

£ - 467
¢ - 58
¥ - 468
& - 12346
- 3456
@ - 3457
% - 123456
Not bijective <%o->-b1345678
* - 35
+ - 235
= - 2356
- - 36
_ - 4567
/ - 256
\\ - 347
| - 34
< - 56
> - 45
§ - 357
μ - 1348
¼ - 1368
½ - 12368
¾ - 13468

Computer 8-dot braille characters - English

a - 1
b - 12
c - 14
d - 145
e - 15
f - 124
g - 1245
h - 125
i - 24
j - 245
k - 13
l - 123
m - 134
n - 1345
o - 135
p - 1234
q - 12345
r - 1235
s - 234
t - 2345

u - 136
v - 1236
w - 2456
x - 1346
y - 13456
z - 1356
A - 17
B - 127
C - 147
D - 1457
E - 157
F - 1247
G - 12457
H - 1257
I - 247
J - 2457
K - 137
L - 1237
M - 1347
N - 13457
O - 1357
P - 12347
Q - 123457
R - 12357
S - 2347
T - 23457
U - 1367
V - 12367
W - 24567
X - 13467
Y - 134567
Z - 13567
0 - 123456
1 - 16
2 - 126
3 - 146
4 - 1456
5 - 156
6 - 1246
7 - 12456
8 - 1256
9 - 246
.- - 256
;- - 23
:- - 25
! - 3456
? - 26

(- 45
) - 345
[- 12356
] - 23456
{ - 123567
} - 234567
" - 4
' - 3
\$ - 34567
£ - 467
& - 12346
- 56
@ - 2346
% - 46
* - 35
+ - 235
= - 2356
- - 36
_ - 456
/ - 34
\ - 167
| - 468
< - 236
> - 356

Computer 8-dot braille characters - US

a - 1
b - 12
c - 14
d - 145
e - 15
f - 124
g - 1245
h - 125
i - 24
j - 245
k - 13
l - 123
m - 134
n - 1345
o - 135
p - 1234
q - 12345
r - 1235
s - 234

t - 2345
u - 136
v - 1236
w - 2456
x - 1346
y - 13456
z - 1356
A - 17
B - 127
C - 147
D - 1457
E - 157
F - 1247
G - 12457
H - 1257
I - 247
J - 2457
K - 137
L - 1237
M - 1347
N - 13457
O - 1357
P - 12347
Q - 123457
R - 12357
S - 2347
T - 23457
U - 1367
V - 12367
W - 24567
X - 13467
Y - 134567
Z - 13567
0 - 356
1 - 2
2 - 23
3 - 25
4 - 256
5 - 26
6 - 235
7 - 2356
8 - 236
9 - 35
. - 46
; - 56
: - 156
! - 2346

? - 1456
 (- 12356
) - 23456
 [- 2467
] - 124567
 { - 246
 } - 12456
 " - 5
 ' - 3
 \$ - 1246
 & - 12346
 # - 3456
 @ - 47
 % - 146
 * - 16
 + - 346
 = - 123456
 - - 36
 _ - 456
 / - 34
 \ - 12567
 | - 1256
 < - 126
 > - 345

Appendix - 10-dot braille functions

These combinations are used to generate all keys of a PC keyboard other than character keys. They are also called bramigraphs. The term suggests that the braille dots used to generate an action often follow a visual logic that makes them easier to learn.

Examples:

- The `start` function, which moves to the start of a line in an editing area or to the start of a list, uses the `b123A` combination (dots 1 2 3 together with space). Its symmetrical counterpart, `end`, which moves to the end of a line in an editing area or to the end of a list, uses the symmetrical braille dots while keeping space, therefore `b456A` (dots 4 5 6 together with space).
- The 4 arrows can also be generated with 10-dot braille functions. Although they can be used with joystick 2, it can be more convenient to generate them this way during a shortcut sequence. The 4 arrows always use the `A` key (space), combined with one of the 4 dots of the braille letter `w` (`b2456`). The up arrow uses the top dot of `w`, therefore `b4A`; the down arrow uses the bottom dot of `w`, therefore `b6A`; the left arrow uses the left dot of `w`, therefore `b2A`; the right arrow uses `b5A`.
- The `F1` to `F12` functions are generated by using the first 12 letters of the alphabet combined with braille key 9, for example `b19` for `F1` up to `b1239` for `F12`.

Detailed list:

EDITING:

9 - Correction

A - Space

9A - Enter

35A - Insert (used as a toggle => 2 presses simulate press-release)

36A - Delete

NAVIGATION:

123A - Home

456A - End

2A - Left

5A - Right

4A - Up

6A - Down

13A - Page up

46A - Page down

OTHER:

1245A - Escape

256A - Tab

235A - Shift+Tab

1346A - Print screen

12A - Pause / Break

14A or 569 - Context menu

Functions

19 - F1

129 - F2

149 - F3

1459 - F4

159 - F5

1249 - F6

12459 - F7

1259 - F8

249 - F9

2459 - F10

139 - F11

1239 - F12

TOGGLES:

2456A or 12349 - Windows Start menu

79 - Caps lock on

89 - Caps lock off

39 - Num lock on

69 - Num lock off

7A - Shift

78A - Ctrl

178A - Ctrl locked

478A - Ctrl unlocked

8A - Alt

18A - Alt locked

48A - Alt unlocked

135A Ins locked

345A Ins unlocked