

## QUICK START NOTES FOR THE PHONEME MACHINE SOFTWARE

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### 1. Overview

The Free-Of-Charge T-62 (PC) and T-63 (Mac) Phoneme Machine software uses 500 basewords to teach the 44 sounds (phonemes) and 120 main spelling choices of English.

There are three sections - Calendar, Word Grid (WG) and Phoneme Grid (PG). Calendar has children's voices saying the days, dates, months, numbers, colours and letter names. (Details of the associated S-67 English Phonics Time Awareness Chart A4 are on [www.englishphonicschart.com](http://www.englishphonicschart.com) The chart is used to develop speaking and listening skills, memory and a vocabulary of over 50 basewords that learners can read by sight.) In the WG and PG sections, a female voice and moving human lips pronounce the words and phonemes and a male voice names the letters.

Version 6.1 (1 Oct 2009) has a Cued Speech option (turned on and off in PG). The shape, position and movement of the hands are displayed alongside the lips. These sound-based units give deaf children access to spoken and written English. To install the Cued Speech video clips, download the zip using the address in the Order Confirmation Email.

### 2. Registration

The Phoneme Machine software is developed and distributed as part of THRASS UK's Corporate Social Responsibility Programme (CSR), which aims to improve the quality of life for the local community and society at large. It is available Free-Of-Charge (in PC and Mac) in the countries that THRASS UK is licensed to serve in Europe, the Middle East, South America, Central America (and the Caribbean), the USA, Central Asia (Pakistan, Afghanistan, Turkmenistan, Uzbekistan and Kazakhstan) and also Africa (excluding South Africa, Lesotho, Swaziland, Botswana and Namibia, which are overseen by BidVest PaperPlus). For legal reasons, the software must not be downloaded and installed in countries outside these areas. The restriction is clearly stated in the Terms and Conditions.

A unique Serial Number is supplied in a separate email to the Order Confirmation Email. Please keep the email/serial number safe for future reference. Copy & Paste the serial number so that you do not confuse letters with numbers e.g. O and 0 and I and 1. The serial number can be used to activate the software on any number of computers and/or terminals at the same address. A new serial number is required for computers and/or terminals at a different address.

### 3. Installation for PC

Obtain a copy of the 50MB case file CASE\_6.exe. You can obtain the file by downloading it from the address supplied in the Order Confirmation Email or by copying it to your desktop from a memory stick or disc (supplied by a friend, relative, colleague or, if you are a parent, your child's teacher). In this case file is the TPM\_6.exe file (the actual THRASS Phoneme Machine programme), a 'words' folder and the 'uninst.exe' file (the uninstall programme).

Double-click the CASE\_6.exe file to activate the Setup Wizard. Use the 'Next', 'I Agree', 'Install' and 'Finish' buttons to automatically load the Phoneme Machine in your C drive (in Program Files), create a desktop short cut, add a link in the Programs Menu and then launch the programme.

There are a large number of audio and video files in the programme. It usually takes about 30 seconds to load. Please take account of this loading time every time you launch the Phoneme Machine programme.

Click the box that says 'Enter Serial Number' and then copy & paste your unique Serial Number (for ANY NUMBER of computers at the SAME ADDRESS). If your serial number is validated, the software will be activated and you will be taken to the screen that has the 'Continue' button. Press 'Continue'.

The Cued Speech video clips (for teaching the sounds and spelling choices of English to learners that are deaf) can be installed at any time. You will need to download the 79MB zip file CS\_Video\_Clips\_Installer.zip using the using the address in the Order Confirmation Email. This zip file has a CS\_Video\_Clips\_Installer file, containing the

CS\_Video\_Clips\_Installer.exe (the 'Di' icon), a 'CS' folder and an 'Xtras' folder. (If someone has already opened the zip file, by activating 'Extract All', you may only receive a copy of the CS\_Video\_Clips\_Installer file (containing the exe file and two folders) on a memory stick or disc.)

Open the CS\_Video\_Clips\_Installer file, containing the CS\_Video\_Clips\_Installer.exe file and double-click it (the 'Di' icon). The clips will be automatically placed in the correct sub-folders, in the Phoneme Machine folder in Program Files.

Should you wish to uninstall the video clips, at a later date, click Uninstall in the Programs Menu (or double click the uninst.exe in the Phoneme Machine folder in Program Files). This will uninstall the whole programme. To re-install the original software (as explained above), double click the CASE\_6.exe file to activate the Setup Wizard.

To make space on your hard drive, the CASE\_6.exe and the CS\_Video\_Clips\_Installer file (which together amount to about 130MB) can now be deleted with or without first being saved onto a memory stick or disc (for passing on to others). Remember, if the software is to be used at a different address, someone will need to order/register for a new serial number. A Server version of the software is also available.

#### 4. Installation for Mac

Obtain a copy of the case file CASE\_6.zip (about 50MB). Unzip the file and it will create a folder called PM\_6\_MAC which will contain two files, an executable file called PM\_6 and a 'words' folder. Drag this folder PM\_6\_MAC to your Applications Folder.

Once you have agreed to the Terms and Conditions and received your unique Serial Number (supplied in a separate email to the Order Confirmation Email), you can click to open PM\_6\_MAC and then click on the PM\_6 executable file. Enter your Serial Number in the space provided and then click on the grey button 'Click to Enter Serial Number'.

The Cued Speech video clips (for teaching the sounds and spelling choices of English to learners that are deaf) can be installed at any time. Obtain a copy of the zip file CS\_Video\_Clips\_Installer.zip (as described above for PC). As a Mac user, you will not be able to use the installer so you will need to drag the unzipped video files to the 'words' folder, where Phoneme Machine 6.1 is located. If you are asked to overwrite any files, select 'Yes'.

There are a large number of audio and video files in the programme. It usually takes about 30 seconds to load. Please take account of this loading time every time you launch the Phoneme Machine. Mac networks use PC network version.

**5. Notification of Updates:** You will be informed via the email and/or address supplied in your order.

**6. Three Main Sections:** There are three sections - Calendar, Word Grid (WG) and Phoneme Grid (PG).

Calendar has children's voices saying the days, dates, months, numbers, colours and letter names. In WG and PG, a female voice and moving human lips pronounce the words and phonemes and a male voice names the letters. The WG section has auto-functions to blend, read and spell (BRS), read and spell (RS) and read (R) the 500 basewords. The PG section has a location for each of the 44 sounds (phonemes), enabling learners to play 'Locate the Phonemes' for each of the basewords. The 24 consonant phoneme-boxes (located in the top half) have a blue border and the 20 vowel phoneme-boxes have a red border.

Click on the WG, PG and Calendar buttons to move between the three main sections. If you lose functionality, please visit one of the other two main sections (Calendar, PG or WG) and then return to the section. Alternatively, if there is one, use the Reset button (top right).

#### 7. Calendar Chart Section

The Calendar Chart section has the English Calendar Chart with children's voices saying the days, dates, months, numbers from one to twenty, ten colours and the names of the twenty-six lower-case letters (and their capitals).

The days, dates, months, numbers, colours and letters on the chart can be used to play 'Questions & Answers' with children, in order to develop speaking and listening skills, reading and spelling skills, social skills, general knowledge, memory and intellect. The children can locate the answers on the chart and devise their own questions for others to answer. The words, letters and numbers can also be used to discuss past and forthcoming events, such as birthdays, public holidays and national celebrations.

**Zoom:** Click Zoom and choose small, medium or large scale. Use the orange arrows on the Mover, to move the screen horizontally, vertically or diagonally. Drag the grey area to relocate the menu. Click Reset to return to normal view. Click on 'Zoom Menu' to close the menu box. The Zoom menu is available in the Calendar, WG and PG sections. It is not available in the SYNTH Area, Auto on or AHOV areas (see below). However, if using a mouse, you can Right Click and use the Zoom In, Zoom Out and Show All functions on most screens.

**FS on/off (Full Screen):** Click 'FS off' to re-size or minimize the screen. To re-size, drag the TOP of the screen away from the corner and then place the cursor over the top right hand corner. Then use the arrows that appear to re-size. The PM screens have been designed to re-size in proportion and to have no loss of function - even down to a very

small size. Click 'FS on' to return to Full Screen. On interactive whiteboards (IWB), you can resize and move the screen towards the bottom of the board so that young or small learners are able to reach all parts of the screen.

Click WG for the Word Grid or PG for the Phoneme Grid.

## 8. Word Grid Section

The Word Grid (WG) section is based on the THRASS 500 basewords. The grid starts with one- and two-letter words, at the top, and progresses to nine-letter words at the bottom (as shown by the numbers on the right). The WG section has a female voice pronouncing the 500 basewords of spoken and written English. A male voice names the letters.

**Text Box on/off:** In WG, click the Text Box to deactivate and activate the box. The default is with the Text Box on.

**Speaker off/on:** Click the Speaker to hear the words without going through to the SYNTHESIZE THE WORD area.

**Double Click a Word:** Double click a word to access the SYNTH Area. Click SYNTHESIZE THE WORD to 'blend the phonemes in order to read it' (do this as many times as you wish). Click the phoneme-boxes to hear the individual phonemes. Click the word-box, at the top of the screen, to hear the whole word. Click on the graphemes (spelling choices) to hear the names of the letters, that is, the letters used for the graphs (one-letter spelling choices), digraphs (two-letter spelling choices), trigraphs (three-letter spelling choices) and quadgraphs (four-letter spelling choices). Move between the words by selecting the right and left orange arrows, located at the ends of the blue bar. Underlined letters indicate split digraphs (e.g. tape) or letters (or sequences of letters) that are NPS (Non-Phonographic Spellings or, if you prefer, letters that are Not Playing Sensibly!). Non-Phonographic Spellings are not graphemes because they represent more than one phoneme or they are abbreviations e.g. 'x' in box and 'd' 'r' in Dr (and 'Mr' for Mister).

In the SYNTH Area, click B/R if you want the consonant graphemes to be blue and vowel graphemes to be red (like the T-49 Magnetic Graphemes) or if you want to revert to normal bold text. The change will appear in the NEXT word.

**Zoom:** In the Zoom Menu choose small, medium or large scale (as for Calendar, above).

**Speaker On with LARGE SCALE Text:** Select large scale (medium or small scale) on the Zoom Menu. Click 'Speaker on' to only hear the words and then double click the words. If desirable, click 'Text Box off' to deactivate the box. Use the orange arrows on the Mover to move the screen horizontally, vertically or diagonally. Drag the grey area to relocate the menu. Click reset to return to normal view. Click Zoom Menu for normal view with the speaker off (the default).

Select PG (top left or in the blue bar), if you wish to play 'Locate the Phonemes' with the word that is presently on display. Recreate the words displayed at the bottom by selecting the phonemes in the right order. You can also use 'Auto', 'Hide & Seek then Auto' and 'PG icon then Auto' to reveal the location of the phonemes. Click the right or left orange arrows to move through the words in Word Grid order.

To start 'Locate the Phonemes' at a particular word, such as the 7-letter word 'feather' (located under the words WORD GRID, in the blue bar), double click it on the Word Grid (to enter SYNTH Area) and then select PHONEME GRID.

Select WG to return to the 500-word grid. The grid can also be reached from the 'SYNTH Area' by clicking WORD GRID, without first visiting the Phoneme Grid.

## 9. Word Grid Auto-on

**Auto on/off:** With 'Auto on', select groups of words (listed in the S-64 English Phonics 500 Book and S-57 500 Chart) OR double-click any number of words to compile your own word list. Having clicked the flashing orange arrow, choose what you want to do with the list of words, that is, Blend, Read and Spell (BRS), Read and Spell (RS) or Read (R).

By selecting words in sequential order, such as "I saw a fish in the sea", simple sentences can also be created. Then select the flashing orange arrow and click R (Read) to hear the words spoken in sequence. If appropriate, click the right white arrow to move through the words (at a suitable pace) and have your learners read or write the words.

The number of automatic play-throughs can be set from 1 to 5 by using the increase and decrease arrows (by the flashing orange arrow). The increase arrow is located underneath the number, to make it easier for learners to reach on large interactive whiteboards. Then click the flashing orange arrow. It is not possible to change the number of play-throughs when the user is in the 'Auto on' area. To change the number, return to WORD GRID and click 'Auto on'. Reselect the words and use the increase and decrease arrows to set the new number. If you have been using the units, there is a Unit Reminder located above Unit 4.

**Word Grid Reset:** Click Reset, top right, to remove highlighted words from the grid.

**Unit List Reset:** If the list needs to be reset at any time, because you cannot see a Unit, click the top unit, Unit 4, once or twice. If 9.9b, 9.10b, 9.11b, and 9.12b (the add-on buttons for the colours, numbers from one to ten, days and the months) fail to appear, click Unit 9 once or twice. Sometimes it may be necessary to click 'Auto on' again, via 'Auto off'.

The right and left orange arrows, at the ends of the blue bar, used in the SYNTH Area, do not function in the 'Auto on' area so they have been masked. If 'B/R on' is on, click Pause to view the Blue and Red graphemes in the word.

AHOV ("Ay-Hov"): Automatically read and spell the selected words, using the letters from the four piles of tiles; which correspond to the four sequences in the 'Letter Name Rap', on the T-51 Raps and Sequences CD.

Click the flashing orange arrow to activate the AHOV Auto function. At any time, you can click any button to activate the functions BRS, RS, R, AHOV, SYNTHESIZE THE WORD and PHONEME GRID. If you chose PHONEME GRID or WORD GRID (and, in so doing, leave the 'Auto on' area), you will need to re-select the original list. As a reminder, the last selected unit is recorded above Unit 4. You can also use the Pause button (which re-starts at the beginning of the word on display) or leave the 'Auto on' area by using the 'Quit to SYNTH Area' button (the large circle between Pause and the white left arrow). Once in the SYNTH Area, click SYNTHESIZE THE WORD to start the blending sequence.

'Check', 'Answer', '10' and 'Speaker' are only functional in the 'Inter' (Interactive) mode (see below). These buttons are masked during 'Auto'. Reset (a word) and Rescue (the list) are masked but still function. Rescue is the ambulance icon.

Want to move the letter tiles?: Users are not able to move the letter tiles to spell the words when in the 'Auto' function. It is, however, possible to toggle between the lower case and capitals but they are not able to be moved. If you want to move the letter tiles, click on the 'Inter' (Interactive) button, located bottom left.

AHOV Inter (moving the letter tiles): To spell the words yourself, click the 'Inter' (Interactive) button and then move the tiles. Click the Speaker button, bottom right, to hear the word. Click the '10' button to activate the naming of the word, the 'Ten-Second Countdown' and 'Letter Fade' functions. Click the Check, Answer (including, if a reminder is needed, before a Countdown) and Reset buttons, when required. The Check button produces a good sound (clapping) or bad sound ("boing") depending on whether the answer is correct or not! There is a Mute facility (by clicking the Speaker icon) to temporarily remove this feedback in AHOV. The volume level elsewhere is unaffected and remains the same.

Note that letters can be 'thrown' into the boxes by using the 'Snap to' factor (the sensitive area directly beneath the boxes). Once a letter-box has been occupied, it MAY reject other letters. "Double Tap" a box to resubmit a letter or return the incorrect letter to the home pile, before putting the correct letter in the letter-box and it should be accepted. If necessary, click the Reset button (or, to start from the first word in the list, the Rescue button, bottom right).

AHOV Reset: If the letter tiles lose their functionality, click Reset (to reset a word) or Rescue (to reset the list). The left and right white arrows also reset the letters (for the next word). Select the Capital Letter Option and then return to the Lower-case Option to reset the letter handles. It is also possible to reset by clicking the AHOV button.

AHOV Auto: Click the Auto button, bottom left, to leave the AHOV Inter (Interactive) function.

## 10. Phoneme Grid Section

The Phoneme Grid (PG) has moving human lips to demonstrate the pronunciation of the 44 phonemes of English. Click the phonemes to recreate English words and to recreate alternative pronunciations (to cater for accent). Try to remember where the phonemes "live". That is, find the location for the three phonemes in "c-a-t". Repeat this a few times and then try to recreate "t-a-c" (reverse order) and then "a-c-t" (starting with the first phoneme-box in the Vowel Section). Click the phoneme-boxes to recreate other familiar words or even to create some new words!

IPA off/on: Click 'IPA on' to hide or reveal the International Phonetic Alphabet pronunciation symbols.

Zoom: In the Zoom Menu choose small, medium or large scale (as for Calendar and Word Grid sections, above). The Zoom also works in the 'Locate the Phonemes' area.

Locate the Phonemes: Recreate the word that is displayed (having first clicked PHONEME GRID in the Synth Area) by selecting the phonemes in the right order. You can also use 'Auto', 'Hide & Seek then Auto' and 'PG icon then Auto' to reveal the location of the phonemes. Play Locate the Phonemes to recreate familiar and unfamiliar words. If desirable, cater for accent by selecting different boxes (even if they are masked). This relates to "Right grapheme, DIFFERENT phoneme!". Click the right or left orange arrows to move through the words in Word Grid order. Should a word have some boxes missing (as may happen), use the arrows to visit the next word and then return to the word.

Remember, words containing spellings that are NPS (Not Playing Sensibly), see above, (e.g. the 'x' in box and 'd' 'r' in Dr), will have more phonemes than the available graphemes (more sounds than spelling choices).

44 – click the '44' button and all the forty-four phonemes are voiced and highlighted in sequence. Use the Pause and Continue button to move through the phonemes. Orange arrows, at the start of each row (namely, C1, C2, C3, C4, V1, V2, V3, V4) are revealed. If a row arrow is clicked, the phonemes in the selected row are voiced and highlighted in sequence. Clicking the arrow stops and restarts the sequence. To exit '44' click the 'PG icon'.

FS on/off: Click the FS (Full Screen) button to minimize or alter the size of the screen.

Reset: Use the Reset button, top right, if you need to remove information from the screen.

Cued Speech: The Cued Speech option, FOR ALL SECTIONS, is activated by this button. The shape, position and movement of the hands are displayed alongside the lips. To install the Cued Speech video clips, download the zip using the address in the Order Confirmation Email. For further details, see 'Cued Speech Option', below.

CS Info: This gives information about Cued Speech.

### 11. Interactive Whiteboard (IWB)

If you have a large interactive whiteboard, use fingers and/or pens to trace over and form the letters/graphemes on the various screens, especially the three main screens (Calendar, Word Grid and Phoneme Grid). Ideally, use black or blue 'ink' for normal writing and, on special occasions, blue 'ink' for consonant graphemes and red 'ink' for vowel graphemes. Use fingers or pens to identify and connect words and graphemes on the Calendar Chart, phonemes on the Phoneme Grid (including by numbering the boxes) and words and graphemes on the Word Grid.

### 12. Interactive Teaching

Encourage your learners to answer and ask questions and to show the answers by clicking or pressing the screens. Have individuals perform the actions and say the words, phonemes, names and numbers for others to then copy.

13. "Synth and Seg"(ment) is a good interactive game for analysing the sounds and spelling choices in whole words. Click 'Auto on'. Double Click any word on the Word Grid. Click the orange arrow. Click R for Read. Click WORD GRID. Double Click any word to enter SYNTH Area (starting with whole words). Encourage learners to guess the word (before clicking the Word Box) and guess the number of phonemes and graphemes (before clicking SYNTHESIZE THE WORD). Click the arrows to move through the words before one team call "Synth and Seg". Teams can take turns to earn points. One point for the word and one point for the number of graphemes. Or one point for each correctly articulated phoneme (or an alternative phoneme - to cater for accent!) and/or one point for each grapheme e.g. for 'see' the answer would be "graph 's', digraph double 'e'. If desirable, with 'B/R on', extra points can be scored for predicting the colour of the graphemes, depending on whether they represent consonant or vowel phonemes. For the word 'see', the 's' would be blue and the double 'e' would be red. This game can be played at any time by moving from Read to the WORD GRID. Visit PG and return to WG to reset for normal SYNTH Area functionality. The underlining of split digraphs (tape) and NPS spellings (e.g. box) is not available via any of the 'Auto on' (automatic practices) routes.

### 14. Mute or Reduce the Volume

Another good way to improve interactivity is to Mute or Reduce the volume (using the controls on your computer or IWB) so that your learners have to produce the words, names and phonemes to provide the answers. This is also an excellent way to assess progress - in terms of the accuracy and clarity of the answers and the speed in which the actions are performed (testing knowledge, sequential skills and spatial awareness). From both an educational and social perspective, this option also helps learners, especially young learners, to have a better understanding of partial hearing and/or deafness (including some of the factors involved in what it is like to lip-read).

### 15. Help and Quit

Help: There is a Help button on every screen in the Word Grid (WG) and Phoneme Grid (PG) sections. This takes you back, via a link, to [www.englishphonicschart.com](http://www.englishphonicschart.com) where you can find these Notes in the Free Guides section.

Quit: There is a Quit button on every screen. This leads to the 'Do you really want to Quit?' screen, with the options 'Yes' or 'Return' (to return to the last screen). Alternatively, on a keyboard, simply press Esc (ESCAPE), usually top left.

### 16. Cued Speech Option

This option is turned on and off by clicking the 'Cued Speech' button in the Phoneme Grid. The shape, position and movement of the hands are displayed alongside the lips – in the sections where the lips are shown. If the video clips have been installed, the cueing clips are viewable in a video box in Calendar, Word Grid (using 'Speaker on' and also in the 'Synth Area', 'Auto on' and 'AHOV' sections) and the Phoneme Grid. In the 'Synth Area', the video box must be clicked to view the cueing clip. If the letters are clicked, the letter names are cued in the video box.

In the Phoneme Grid, clicking the 'Cue Word' button (at the bottom of the screen) results in the selected word being cued in a large video box. Click on the arrows to move forward and backwards through the words. Clicking the 'Cue Plus' button results in the words being cued automatically in a large video box, in Word Grid order.

In 'Auto on' the words and letter names are cued automatically in a video box after the word has been synthesized and voiced for the BRS (blend, read and spell) and RS (read and spell) options. In the R (reading) option the word is read and then cued. In AHOV, the words are cued in a large video box and the letter names are also cued but in a video box located inside the relevant letter tile.

### Acknowledgements

The Phoneme Machine 6.1 software, and all other previous versions, has been designed by Alan Davies, Chartered Educational Psychologist and Associate Fellow British Psychological Society and programmed by Mike Meade.