

Articulation: Therapy for Oral Apraxia, Dysarthria, and Developmental Speech Disorders

Initial, Medial, and Final Sounds for Twenty Consonants

Objective The client will see a picture, hear it labelled, record their imitation of the word, sounds, phrase, or sentence, and determine accuracy of the production.

Monitoring and Self-Monitoring: The client or clinician can determine if the target sound has been produced Correctly (C), Incorrectly (I), or Distorted (D). Use the “Record and Play” features to record and listen to the client’s production of the target. Alternate between the model and the client’s recorded words. Stress the importance of the concept that, “Contrast aids perception.” Listen for the samenesses and differences between the two productions. Have the client monitor their own speech and determine accuracy using the *CDI* button. Compare the client’s perception of accuracy with your own. You may use the *CDI* button each time the client says the target word to keep a running tally of accuracy.

Transfer activities can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be repeated at the time of recording

Generalization can be practiced through recording “spontaneous conversations” that have the target word used somewhere in the conversation. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily.

How to Play The clinician will assist the client in choosing a voiced or voiceless consonant in the initial, medial or final position. The client will listen to the word as it is pronounced and try to replicate the sound. The client may listen to the word again by clicking on the *Say Word* button. Use the VCR-like buttons to record their voice. They may click on the *Say Sound* button to listen and imitate the word segmented into individual phonemes. When there is accuracy at the phoneme and single word level, the client can use the *Say Phrase* button to hear the word used in a phrase. After listening carefully, the client will repeat the phrase. Then the client will click on the *Say Sentence* button to hear the word used in a sentence. The client will repeat the sentence and may say another sentence using the word.

Phonological Processing The client may click on the *Exaggerated* button to hear the word pronounced with the target phoneme exaggerated. Use the *Options* button to choose *voiced* or *voiceless* phonemes. The key combination “Option V” (for voiced) or “Option L” (for voiceless) can be used to quickly switch between voiced and voiceless target sounds. A choice of “Final Voiceless” for example, will give you words consistent with a phonological approach to remediating articulation disorders but all phonological processes were not addressed in this Articulation CD. Focusing on the processing and imitation of phonemes as presented on the *Sounds* button can develop central auditory processing of speech sounds, a difficult task for those with Central Auditory Processing Disorder (CAPD).

Response Options Use the touchscreen or mouse to select the *Word*, *Sounds*, *Phrase*, *Sentence*, or *Exaggerated* button to hear the target word spoken. By typing the numbers 1, 2, 3, 4, or 5 you will hear the sound corresponding to the Word(1), Sounds(2), etc.

When you are finished with a screen, click on the *right arrow* or use the right arrow key to move to the next screen. The *left arrow* allows you to repeat the previous screen. The up arrow key or the *up arrow* on the *volume* button increases the volume and the down arrow decreases the volume. If you turn the volume off, you can scroll faster through the pictures using the right or left arrow keys. *H* takes you to the *Help* screen. *X* allows a quick exit from the program. The *Print* button allows you to print the picture on a homework page. Refer to the *I Like Keys* insert for more keyboard shortcuts.

Options Random/Sequential, Hide Words/ Show Words, Move to Next on Correct



Categories	Twenty phonemes are available. They are: p/b, t/d, k/g, f/v, th/th, s/z, sh/zh, ch/j, m/n, l, and r. Options Random on: Words and pictures appear in a random order within a group. Random off: Words and pictures are ordered within a group from easy to hard. Hide Words: Choose this option to hide the word, phrase, and sentence. <i>Option H</i> will toggle the hide word/show word while on the screen to allow auditory memory practice or decoding practice.
Screens	60 Photographs for each consonant; 20 each for Initial, Medial, and Final Sound. The /l/ and /r/ groups each have 120 photos.
Game Results	By Trial: Category, % Correct, % Distorted, % Incorrect, and Average Time.
Rationale	This task requires the ability to attend to a series of complex auditory stimuli, analyze the sound segments, and imitate these sounds in sequence. It requires auditory processing at the sound, syllable, phrase, and sentence levels with imitative or spontaneous expressive articulatory production.
Word Selection	The words chosen for <i>Articulation</i> are, for the most part, common words in the vernacular of six to twelve-year-olds. If there are unusual words, the word was chosen for consonant location and vocabulary development. The first five words are intended to be easiest and the last five words are intended to be the most difficult. The sound segmentation is based on the <i>LocuTour Guide to Letters, Sounds, and Symbols</i> .
Pronunciation	We used the <i>Webster's New Collegiate Dictionary</i> as our reference for pronunciation, and, in general, we chose the most common pronunciation if there was more than one choice. There were exceptions to this general rule based on my knowledge of stimulating articulation. For example, "yel*low" is most effectively taught, as a three syllable word, "ee, el, oe" but is pronounced, "yellow" once learned. The syllable breaks do not necessarily coincide with the dictionary syllabification rules. Syllabification is based on ease of speech production. Therefore, most of the time, syllables will begin with a consonant, e.g., "so*fa." When dealing with /r/ and /l/ the most facilitative breaks were made for a particular word, e.g., "ca*mer*a" and "cal*en*dar."
Dialect	As for the way I talk, I was born in Pennsylvania, have lived in Ohio, Georgia, Maryland, Washington D.C., and five cities in California. I know my speech does not represent the entire country, but does approximate the "Midwestern American Dialect."
Color Highlights	Usually in a doubled consonant, the first consonant was "grayed-out" and the second consonant was pronounced, e.g., "wal*let." Once again, if this was not done, it was decided that the alternative was easier to produce. Grayed-out letters meant that the sound was silent as in, kn, wr, gn, ight, mb, ll, ff, gg, ck , etc. Some notice for spelling irregularities was made by highlighting the sounds that did "not play fair," belonged together, or needed special notice. I dubbed these, "notice me letters" and used the color <i>maroon</i> to highlight them, e.g., ate, ph, tch, dge, ce, ge, ti, ci, si, eo , etc. If a vowel combination did "not play fair" as listed in the <i>Guide</i> , then these vowels were highlighted.



Alternative Uses for the *Articulation* CD Program

Central Auditory Processing Disorder

Recent research indicates that phonemic processing is critical to auditory processing of connected speech. This CD allows for auditory processing of speech sounds at the phoneme level using the *Sounds* button. This slowing down and segmentation of the word allows the listener to process the phonemic units that make up the word, imitate the units, record their production, and play back their speech to self-monitor. Self-correction and self-monitoring are the first steps in automatic integrated auditory processing and accurate verbal expression.

Literacy Development and Dyslexia

This game is appropriate for children and adults learning to read or those with reading and spelling difficulty. The gray colored letters indicate the silent letters such as: *kn, gh, mb, rh, mn, gn* and *ck*. The “e” rule which allows the letter “e” to jump over one sound, (b, t, th, ch, sh, m, etc.) or one letter, (never tt, or bb, etc.) to make the vowel say its name, is highlighted in the color *maroon*. For example, the sound in the word says, “ae” but the spelling is, “*cape*.” We teach that the, “e” jumps over and bops the “a” on the head to make him say his name. This single rule, the “e-rule” can make a huge difference in a person's ability to sound out new words. The other rules that can be taught are the “*c and g - rules*.” Any spelling book has a description of these rules but in essence, “*c*” followed by *i, e, or y* says its sound /s/, otherwise, “*c*” says /k/. (*Ice, pencil, bicycle, coat, cap, etc.*). “*g*” followed by *i, e, or y* can say the sound /j/, (*package, engine, gym*), but doesn't have to. It can say its sound, /g/, (*give, got, etc.*). The /sh/ sound can be spelled many different ways, such as “*ti*” (*carnation*) or “*ci*” (*musician*). We used the maroon color to highlight what we call, “*notice me*” sounds. These are sounds that don't quite play fair and need to be noticed for spelling or pronunciation.

Refer to the *LocuTour Guide to Letters, Sounds, and Symbols* for more information about spelling and pronunciation rules. *Transfer activity*: Use the homework pages to practice copying the word and spelling new sentences. If the client copies the word from the computer screen to a word list, they are also developing shifting attention skills, visual perceptual and motor sequencing skills.

Auditory Memory and Working Memory

Requiring *forward and backward repetition* of the words, phrases and sentences can help those with short term memory problems, sustained, and shifting attention difficulties. Use felts on the table to “anchor” the sounds in sequence. I have used this process of repetition to increase the amount of information a client can hold in working memory. The process of forward repetition can teach the compensatory strategy of “reauditorization.” If you can develop your “internal tape recorder” you have a second chance to replay and thus comprehend auditory information.

Aphasia Therapy

The pictures in this CD can be used to stimulate conversational speech, check auditory comprehension, and to practice repetition, naming, writing, and reading skills. Use the record features to make your own cueing strategies. The program is designed to present a speech model at the sound, word, phrase, and sentence levels. You can always record your own, “It's a ...” phrases, sentence completion, or phonemic cue sentences for individualized cueing. The record feature will allow several minutes of recording but will not save the recording when you move to the next page.



Right Hemisphere Syndrome

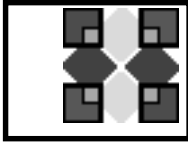
The treatment of Right Hemisphere dysfunction will include visual scanning, reading, writing, speech intonation, perception of affect, comprehension of humor, idioms, metaphors, and logic. The pictures can be used as a launching point for describing the details of visual images such as, color, size, shape, number, smell, taste, sound, perspective, movement, mood, and background. The main idea of the picture can be identified to assist with focusing on relevant stimuli and ignoring irrelevant details. An extension activity can be used to have the individual tell what could happen next. The individual will need to understand the gestalt of the picture story before being able to make their own extension sentences or infer meaning from the picture. Questions such as, "What was the dog doing?" and, "Why do you think he might be feeling that way?" encourage them to tell brief stories. These can be taped using the recording feature and played back to allow some processing of their own speech. You could track topic maintenance, or appropriateness of responses.

Traumatic Brain Injury

The communication deficits related to TBI often include dysarthria, auditory and reading comprehension problems, anomia, and pragmatic language disorders. In a small group setting, the CD can be used to present a stimuli and allow the individuals to practice turn taking, appropriate conversation, and topic maintenance. It is possible to use the recording features for feedback and self-monitoring on perseverative responses, inappropriate laughter, swearing, and off task responses. Use of the *Sequential* presentation option can allow the clinician to present the same stimuli each day. As the client progresses, you can increase the variability for responses using the *Random* option. Repeating the word, phrases, and sentences forward and backward at a level in which your client is successful 85% of the time, will develop working memory, short-term memory skills, and mental flexibility. I always use felts to "anchor" the words.

Dysarthria and Apraxia

Auditory feedback is critical for self-monitoring of dysarthric speech. The pictures were chosen for content, phonemic complexity, and "picturability." The screen was designed to allow printed and/or auditory stimuli. An Apraxic client may prefer to have the words displayed and use the *Word* and *Phrase* buttons for self-paced imitative speech practice. The Dysarthric client may choose to practice k/g sounds in words to improve intelligibility for phrases and sentences. Most clients can practice on their own or with an assistant. Use of the *CDI* button will allow the client to keep track of their perception of the accuracy of reproduction of the stimulus. The comparison of *their* perception of intelligibility and *your* perception of intelligibility can be insightful when planning therapy goals.



I Like Keys: Articulation

Main Screens

- (right arrow) go to the next word
- ← (left arrow) go to the previous word
- ↑ (up arrow) increase the sound volume
- ↓ (down arrow) decrease the sound volume

- “Option” and “R” toggle between random and sequential
- “Option” and “H” toggle between displaying/hiding the text
- “Option” and “N” go to the Enter Names Screen
- “Option” and “P” print the picture and homework

- “F” return to the main screen
- “?” go to the Help Screen
- “H” go to the Help Screen
- “E” exit, quit the program

- “R” record the word
- “S” stop recording the word
- “P” play back the word

- “C” score the pronunciation as correct
- “D” score the pronunciation as distorted
- “E” or “I” score the pronunciation as incorrect (error)

- “1” play the sound for the word
- “2” play the sound for the sounds
- “3” play the sound for the phrase
- “4” play the sound for the sentence
- “5” play the sound for the exaggerated target sound in word

Note: If the shortcut says “Option” and “key” then the “Option” key is acting like the shift key. Press the “Option” key and while holding it down, press the other key in the command. (Windows users should press the Control Key.)



Phoneme Selection Screen

“O” go to the “Options” screen
“F” Finish the program
“?” go to the Help Screen
“H” go to the Help Screen
TAB choose the phoneme pair for the practice session
“Option” and TAB choose from Initial, Medial, Final, or Mixed target
RETURN start or continue the practice session **without resetting** the counter
or the random number generator
SPACEBAR start the practice session and reset counters
and the random number generator

Results Screen

“F” quit the program
“M” return to the Main Screen
“?” go to the Help Screen
“H” go to the Help Screen
“P” page setup
“Option” and “P” print the results page

Options Screen

“V” choose voiced phonemes to practice
“L” choose voiceLess phonemes to practice
“B” choose Both voiced and voiceless phonemes to practice
“Option” and “R” toggle between random and sequential
“Option” and “H” toggle between displaying the word and hiding it
“Option” and “N” go to the Enter Names Screen
“Option” and “H” go to the Help Screen
“D” or RETURN return to main menu

Help Screen

“D” or RETURN return to main menu

Names Screen

TAB toggle between names fields
RETURN record the names and return to main menu

ABC 123 Game

The keys for *And a One, Two, Three* will work with *ABC 123*.



ABC 123

What's My Name, What's My Number
What's My Sound, What's My IPA Symbol.

- Objective** The client will repeat letter names, numbers, letter sounds, and IPA Symbol sounds after the voice stimulus.
- How to Play** The client listens to the voice and watches the screen, then repeats the name of the letter, the name of the number, the sound of the letter, or the sound of the IPA symbol. Click on the *Next* button to move to the next screen.
- Response Options** Clicking on the *right arrow* or pressing on the right arrow key moves you to the next screen without recording a correct or incorrect response. The *left arrow* allows you to repeat the previous screen. The up arrow key, or the *up arrow* on the *volume* button, increases the volume and the *down arrow* decreases the volume. If you turn the volume off, you can scroll faster through the pictures using the right or left arrow keys. *H* takes you to the *Help* screen. *X* allows a quick exit from the program. The *Print* button allows you to print the picture on a homework page. Refer to the *I Like Keys* insert for more keyboard shortcuts.
- Recording Options** Use the mouse to click on the VCR-like controls beneath the *Listen to the Sound* button. The round red button records your voice. The red rectangular button stops the recording (or the playback) and the green triangular button plays the sound. If the buttons are gray they are not available.
- Options** *Random*
- Game Results** By Trial: Category, % Correct, % Distorted, % Incorrect, and Average Time.
- Rationale** This task is intended for clients in Rancho Level VII and above and requires the ability to attend to an auditory stimulus.
- This task is designed to prepare the client for letter, number and word recognition tasks found on other LocuTour games. This game establishes the “rules” for consonant and vowel sounds utilized in the other games.
- Alternative** This game is appropriate for children and adults learning language, pre-reading and math skills, or those with reading and spelling difficulty. This game can also help develop pronunciation skills with those individuals learning English as a second language.



Also Available from LocuTour Multimedia
Attention and Memory: Volume I
Thirty-six exercises in six modules

ORIENTATION

This module is intended for clients in Rancho Levels III, V, VI and focuses on arousal, orientation, sustained attention, and discrimination. Also appropriate for young or severely impaired individuals needing to improve forced choice decision making.

AUDITORY ATTENTION

This module is intended for clients in Rancho Levels VI, VII, VIII and focuses on sustained attention, auditory discrimination, accessing remote memory, cross-modal matching, vigilance, receiving, analyzing and storing auditory information. Also appropriate for children and adults with central auditory processing dysfunction, auditory conceptualization dysfunction, reading and spelling disorders, and language-learning disabilities.

LANGUAGE ATTENTION

This module is intended for clients in Rancho Levels III, V, VI, VII, VIII, and requires attention discrimination, processing and conceptualization of speech sounds, words, phrases and sentences. Also appropriate for children and adults with central auditory processing dysfunction (CAPD), auditory conceptualization dysfunction, reading and spelling disorders and language-learning disabilities.

VISUAL PERCEPTUAL ATTENTION

This module is appropriate for clients in Rancho Level VI, VII, and VIII, and focuses on visual attention, discrimination, conceptualization, integration, analysis and visuomotor coordination to analyze visual features of patterns, shapes and word relationships. Also appropriate for children and adults with reading and spelling disorders and language-learning disabilities. Requires visual attention, perception, analysis and synthesis of visual stimuli.

HIGH LEVEL ATTENTION

This module is intended for clients in Rancho Levels VI, VII, VIII, and requires vigilance, sustained attention, planning, visual attention, visual search and discrimination, problem solving, planning verification of activity, analysis, spatial orientation, mapping and manipulation, sustained attention, discrimination, implementation and suppression of motor plans. These cognitive tasks were grouped to provide a high level attention training program for frontal lobe injury and the development and/or remediation of executive functioning skills. The combination of games in this module is strongly recommended for clients with Post Concussion Syndrome, Mild Traumatic Brain Injury, and Attention Deficit Disorder.

AUDITORY AND VISUAL MEMORY

This module is intended for clients in Rancho Levels VI, VII, VIII, and focuses on auditory and visual memory. The client is required to attend to a brief auditory or visual stimulus, label the stimulus at a conceptual level, analyze the stimulus, hold the stimulus in working memory and then make a motor response. Visual, auditory linguistic and non-linguistic stimuli are presented. Also highly recommended and appropriate for children and adults with reading, spelling, language-learning disabilities and auditory and visual memory disorders.

LOCUTOUR® Guide to Letters, Sounds, and Symbols

LOCUTOUR
SPELLING LABEL

CLASSIFICATION

PLACE OR ARTICULATION

IPA

SPELLED AS

EXAMPLES

Consonants

p	bilabial plosive	voiceless	lips	/p/	p, pe, pp	pit, cape, puppy
b	bilabial plosive	voiced	lips	/b/	b, bb	bat, ebb
t	lingua-alveolar	voiceless	tongue tip + upper gum ridge	/t/	t, ed, gth, th, tt, tw	tan, tipped, tight, thyme, attic, two
d	lingua-alveolar	voiced	tongue tip + lower gum ridge	/d/	d, dd, ed	dad, ladder, bagged
k	lingua-alveolar plosive	voiceless	back of tongue and soft palate	/k/	c, cc, ch, ck qu, que, cu, k, kk	cab, occur, school, duck quit, applique', epicure, kit, jackknife
g	lingua-alveolar plosive	voiced	back of tongue and soft palate	/g/	g, gg, gh, gu, gue	hug, bagged, Ghana, guy, Guelph
f	labio dental fricative	voiceless	lower lip + upper teeth	/f/	f, ff, gh, ph	feet, fluff, enough, phone
v	labio dental fricative	voiced	lower lip + upper teeth	/v/	v, vv, f, ph	vet, savvy, of, Stephen
th	linguadental fricative	voiceless	tongue + teeth	/θ/	th	thin
th	linguadental fricative	voiced	tongue + teeth	/ð/	th, the	them, bathe
s	lingua-alveolar fricative	voiceless	tongue tip + upper gum ridge or tongue tip + lower gum ridge	/s/	s, ss, sc, sch, c, ce, ci, cy, ps, z, x	sit, hiss, scenic, school, ace, city, cycle, psychology, pizza, taxi
z	lingua-alveolar fricative	voiced	tongue tip + upper gum ridge or tongue tip + lower gum ridge	/z/	z, zz, s, ss, x, cz	Zen, buzz, is, scissors, Xerox, czar
sh	linguapalatal fricative	voiceless	tongue blade and hard palate	/ʃ/	sh, ce, ch, ci, sch, si, ss, su, ti	sheep, ocean, chef, glacier, kirsch dimension, pressure, sugar, addition
zh	linguapalatal fricative	voiced	tongue blade and hard palate	/ʒ/	si, ge, su, z, zi, j	precision, rouge, usual, azure, crozier, bijou
ch	lingua-alveolar or linguapalatal affricate	voiceless	tongue tip + the alveolar ridge plosives (t, d) combine with tongue blade	/tʃ/	ch, tch, te, ti, tu	chop, batch, righteous, digestion, sculpture
j	lingua-alveolar or linguapalatal affricate	voiced	tongue tip + the alveolar ridge plosives (t, d) combine with tongue blade	/dʒ/	dge, di, du, ge, gi, gy, j	hedge, soldier procedure, gin, gym, jet
l	lingua-alveolar glide	voiced	tongue tip and upper gum ridge	/l/	l, ll	lad, ball
r	linguapalatal glide	voiced	tongue blade and hard palate	/r/	r, rr, rh, wr	rat, purr, rhythmic, wrote
m	bilabial nasal	voiced	lips with air through nose	/m/	m, mm, ,m, ,b, lm, gm	mom, mommy, mnemonics, limb, palm, paradigm
n	lingua-alveolar nasal	voiced	tongue tip and upper gum ridge, air through nose	/n/	n, nn, gn, kn, pn	nut, inn, gnome, knot, pneumonia
ng	linguavelar nasal	voiced	back of tongue and soft palate with air through nose	/ŋ/	ng, ngue	long, harangue
w	bilabial glide	voiced	lips rounding	/w/	w, o, u, ju	wax, one, Duane, Juarez
h	glottal fricative	voiced	space between vocal folds	/h/	h, wh, g, j	he, who, Gila Bend, Jose
wh	bilabial glide	voiceless	lips rounding	/hw/	wh	whack (can pronounce:h,w, wh), who
y	palatal glide	voiced	lips spread, tongue high & forward then gliding to following vowel	/j/	y	yellow, yes

LOCUTOUR® Guide to Letters, Sounds, and Symbols

LOCUTOUR SPELLING	LABEL	CLASSIFICATION	PLACE OR ARTICULATION	IPA	SPELLED AS	EXAMPLES
Vowels						
ee	front	voiced	tongue high and forward lips spread slightly	/i/	e_e, ee, ea, ie, ei, ey eo, ae, oe, e	these, beet, heat, field, ceiling, key, people, archaeology, amoeba, recent
i	front	voiced	tongue high and forward lips spread slightly	/ɪ/	i	bit
e	front	voiced	tongue high and forward lips spread slightly	/ɛ/	e, ai	egg, said
ae	front	voiced	tongue high and forward lips spread, more opened	/eɪ/	a_e, ae, ay, ey, ei, ai, a, au, ue	Kate, brae, hay, hey, eight, straight native, gauge, suede
a	front	voiced	tongue high and forward lips spread, more opened	/æ/	a	hat
u	middle	voiced	tongue flat open mouth	/ʌ/, /ə/	u, a, e, o, i	cut, above, haven, won, imitation
o	middle	voiced	tongue flat open mouth	/ɑ/	o, a, al	pop, all, job, father
au	middle	voiced	tongue flat open mouth	/ɔ/	au, oa	August, broad, talk
aw	middle	voiced	tongue flat open mouth	/ɔ/	aw, ou	awful, bought
oe	back	voiced	tongue is back and lips are rounded	/oo/	o_e, oe, o, oa, ew, oo au, eau	broke, toe, obey, boat, sew, brooch chauffer, bureau
ou	back	voiced	tongue is back and lips are rounded	/u/	oo, u	foot, bush
oo	back	voiced	tongue is back and lips are rounded	/u/	oo, ue, ew, ou, eu, ui oe	boot, Sue, dew, soup, suit, feud shoe
ie	digraph	voiced	middle to front glide	/ai/	ie, e_e, uy, ei, ai, i, ei igh	pie, eye, buy, height, aisle, climb, high
ue	digraph	voiced	front to back glide	/ju/	u_e, ue	cute, hue
oy, oi	digraphs	voiced	back to front glide	/ɔɪ/	oy, oi	boy, oil
ow, ou	digraphs	voiced	middle to back glide	/aʊ/	ow, ou, ough	cow, out, plough

R-controlled vowels

er, ir, ur	R-controlled vowels	voiced	front + r glide	/ɛr/, /ɪr/	er, ir, ur, ere, ear	her, fir, fur, were, earth
or	R-controlled vowels	voiced	back + r glide	/ouər/	or, ar, oor, ore, our, oar	or, war, door, ore, four, oar
ar	R-controlled vowels	voiced	middle + r glide	/ɑr/	ar	car, are
our	R-controlled vowels	voiced	middle to back + r glide	/aʊər/	our	hour
air, eir	R-controlled vowels	voiced	front + r glide	/ɛər/	air, eir	fair, their
eer, ere, ier, ear	R-controlled vowels	voiced	front + r glide	/iər/	eer, ere, ier, ear	deer, here, tier, ear
ire	R-controlled vowels	voiced	middle + r glide	/aɪər/	ire	fire
ure	R-controlled vowels	voiced	front to back + r glide	/uər/	ure	lure, sure

Other

c	lingua-alveolar plosive	voiceless	back of tongue and soft palate	/k/	c	cat, coat, clip, cut
c	lingua-alveolar fricative	voiceless	tongue tip + upper gum ridge or tongue tip + lower gum ridge	/s/	c	city, cell, cycle
x	lingua-alveolar plosive then lingua-alveolar fricative	voiceless	tongue tip + upper gum ridge or	/ks/	x	box
x	lingua-alveolar fricative	voiced	tongue tip + lower gum ridge	/z/		Xerox, xlophone
qu	lingua-alveolar plosive and bilabial glide	voiceless	back of tongue + soft palate lips rounded	/kw/	qu	quite, quiet, quick
y	front	voiced	tongue high and forward. lips spread slightly.	/i/	ee	happy
y	digraph	voiced	middle to front glide	/ai/	ie	try
y	front	voiced	tongue high and forward	/ɪ/	i	gym



Read Me First!

Windows™ Installation

Windows 3.1

To install the program group and icon, first determine which drive is your CD drive (D, E, etc). Put the CD in the computer. From the Program Manager Window choose "Run" from the File menu. In the Command Line box, type the drive letter of your CD, the colon (:), and \SETUP. (For example, D:\SETUP). Press [Enter] or click "OK".

During installation several prompts will appear. Click on the appropriate button to continue installation. To run the program click on the appropriate icon in the LocuTour program group.

To install ABC 123 repeat the process above but this time choose the setup file from the directory ABCINST. (For example, D:\ABC 123\SETUP)

Windows 95™

Put the CD in the computer. Click on the "Start" button, then choose "Settings", then "Control Panels". This will open a window with many control panels. Look for one called "Add/Remove Programs" and double-click on it.

In the top portion of the Add/Remove Window is a button labeled "Install". Click once on it. It will put up a white bar with "D:SETUP.EXE". Where "D" may be a different letter depending on what your computer has labeled the CD-ROM drive. Click "Finish" to start installation of the hard disk portion of the LocuTour program. During installation several prompts will appear. Click on the appropriate button to continue installation.

When the installation program is finished you will have installed a pointer to the CD onto your hard disk. To run the programs on the CD you will need to click on the "Start" button. Then click on "Programs", then the "LocuTour Shortcut" folder, then the game name.

To install ABC 123 repeat the process above but this time use the Browse button to choose the setup file from the folder ABCINST.

Important

The installation program for Articulation will install icons for both Disc 1 and Disc 2. ABC 123 is on Articulation Disc 1 and Articulation Disc 2 as well as other LocuTour products. You only need to install it once.

You can run the program directly from the CD by clicking on the .exe files on the CD, but you will not be able to record voices. You must have the CD in the computer for the program to run.

Recording Voices

You can use the VCR-like controls in the program to record voices if your sound card supports recording. You may have to adjust the default settings of the sound card with the sound card's control panels. If you cannot record from within a LocuTour program, first check that the sound input is set to microphone and not to CD. Then check that you are using the correct type of microphone and that it is in the correct jack. Finally, use the sound card's recording program to do a test recording and to adjust the default settings if necessary.

For information on other LocuTour Multimedia products call (800) 777-3166 or (805) 544-0775.



Troubleshooting Windows™

General

Many problems will go away by simply shutting down the computer for 15 seconds and then restarting.

Sound Xtra not found

Sound recording requires that a folder called Xtras be located in the same directory as the .exe file for the game. If you have uninstalled a game it may have erased this folder. Use the setup utility to reinstall the game.

Sounds play fine but occasionally “hiccup”.

The CD will run in 8MB of RAM for Windows 3.1 and slightly more for Windows 95 but it likes to have more. When running with a minimum of RAM there is sometimes not enough to load the entire sound and it “hiccups”. First make sure all other applications are closed, especially things like screen savers and virus checkers. If that doesn’t work then adding more RAM and getting a faster CD-ROM will cure the problem.

Application quits unexpectedly.

Windows applications occasionally conflict with each other. Try closing all other applications, screen savers, and virus checkers and see if the problem goes away. If not try reinstalling the game.

The game plays for a few hours and then starts behaving erratically.

LocuTour games make extensive use of RAM, sound, and video capabilities. After a few hours of play some machines get confused. Shut down the entire machine and restart.

System Error Alert Box When Starting the Game

When you click on the icon the program looks for the CD with the games on it. If it sees a drive with nothing in it you will get the drive not ready message. Click on the cancel button or put the CD in the drive.

“Unknown Error” when Recording

The games must be started from the hard disk in order to record voices. If an error occurs when you try to record or play back the sound then make sure that the game was started from the icon on the hard disk and not directly from the CD.

Errors when Recording

Sounds take up a lot of room. You will need 2-3 MB of hard disk space for general recording and will get an error message if that much is not available.



Read Me First! Macintosh® Installation

Put the CD in the computer. Drag the icons to a folder on your hard disk. Note: You must put the Xtras folder in the same folder as the program icon.

Important

ABC 123 is on all three discs, you only need to drag it to the hard disk once.

You can run the program directly from the CD by clicking on the icon on the CD, but you will not be able to record voices.

You must have the CD in the computer for the program to run.

Recording Voices

You can use the VCR-like controls in the program to record voices. If you have been playing music CDs, you may have to adjust the input setting from CD to microphone.

If you still cannot record voices, check that you are using the correct type of microphone and that it is in the correct jack. Older Macintoshes use a round microphone that records at mic level, while newer ones use a powered microphone. They are not interchangeable.

No sound at all after the intro music

Some machines, are not compatible with the recording program used with this CD. If you have no sound at all after the introduction music, then your machine is one of these. Use the icons in the "No Recording" folder of the CD to run the game. You will not be able to record but you will be able to hear the prerecorded voices.

"Unknown Error" when Recording

The games must be started from the hard disk in order to record voices. If an error occurs when you try to record or play back the sound then make sure that the game was started from a copy of the program on the hard disk and not directly from the CD.

Errors when Recording

Sounds take up a lot of room. You will need 2-3 MB of hard disk space for general recording and will get an error message if that much is not available.



General Troubleshooting

If the program crashes frequently you may have a scratched or dirty disk, or too many other applications running at the same time. Try cleaning the CD with a clean cloth and closing all other programs, including screen savers and virus checkers, before running the LocuTour CD.

If you have no sound, make sure that speakers are plugged into the correct port on the computer, that they are turned on, and that the volume is turned up. Check for loose connections.

Disk Protection Programs:

If you have a disk protection program such as Folder Bolt or At Ease you may not be able to install the program to the hard disk. You may also encounter difficulty with recording since the recording program saves the voice temporarily to the hard disk. Consult the user's guide for these products to determine the appropriate action.

Macintosh®:

Virtual Memory should be turned off.

Sound Recording: Set the input device to microphone and turn off play through.

No Sound - Performa 6200-6500: These computers have surround sound. Turn it off in the sound control panel.

No Sound - Performa 575-580: These computers are not compatible with the sound recording program. Use the icons in the "No Recording" folder on the CD.

PowerBooks: The programs seem to work better if the program icon is copied to the Hard Disk and then used to start the game.

Frequent crashes: You may have an extension conflict or not enough RAM allocated to the program. Try turning off all extensions except for the CD-ROM (usually Apple CD-ROM or a third party extension such as CD-ROM Toolkit) and running only the LocuTour program. If your computer has 8MB of RAM or less, use the Get Info command to change the amount of RAM allocated to the program. Change the preferred size of the application to 2987.

Windows™ :

Picture Quality: The monitor should be set to 256 colors for quickest performance and best quality pictures. If the CD has videos that you want to view, set the monitor to thousands of colors.

Sound Recording - No Sound: Your sound card must be capable of recording and a microphone must be attached to the machine. In the sound recording setup panel, check to be sure that the recording level is not on mute. Usually, the maximum level works best. Also check to be sure that the input device that you have selected is the microphone. You may have to restart the machine for changes to take effect.

Sound Recording - Feedback: Check to be sure that the play through option (or listen) is not selected. Some toys that connect to the computer, e.g. Barney, turn the play through option on. This will result in a high pitched feedback sound that is louder the closer the microphone is to the speakers. You may have to restart the machine for changes to take effect.

For information on other LocuTour Multimedia products call (800) 777-3166 or (805) 544-0775.



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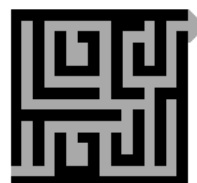
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System Requirements

This package contains two hybrid CD-ROMs that will run on Macintosh[®], Windows, or Windows 95[®] systems.

The Macintosh version requires an Apple Macintosh with a 68030, 68040, or Power PC chip, 8 megabytes of RAM, System 7 or OS8, a CD-ROM drive, and color monitor. A microphone may be required to record voices.

The Windows version requires Windows 3.1 or Windows 95, a 486/66 or better chip (Pentium preferred), 8-12 megabytes of RAM, a CD-ROM drive, a multimedia sound card and video card, and a color monitor. A microphone is required to record voices.



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