SCS Mosaic

Programmer's Guide (Build V3.0)





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1. Overview

Mosaic is a standards-based learning tool that uses cutting edge technology to provide support to students who need reinforcement or additional assistance in the areas of Language Arts and Math. *Mosaic* is specifically designed to support students in ILS, SDC, Tutoring and Resource classrooms.

Mosaic stimulates students' learning through the process of exploring and interacting with both the software and other students in a fun and engaging way. Each student can participate in standards-based activities by himself/herself or work together with a partner to answer questions correctly. To support multiple learning modalities, *Mosaic* employs auditory, visual, and touch sensory stimulation.

Finally, *Mosaic* incorporates an individualized assessment method to prepare each student for his/her own path to success. Students can take a pretest to evaluate the need for reinforcement in a particular area. They can then participate in activities that introduce/review the subject matter. A posttest is given to students to determine how well they have learned the material; retention of material can be evaluated at a later date.

The following instructions will provide guidance on how to use and program the Mosaic suite of products including Mosaic Basic and Mosaic Communicator.

2. Mosaic Activities

Locate the *Mosaic* program by going to the Start menu and clicking on All Programs. Scroll down to Mosaic and access the program. Or double-click on the Mosaic icon located on the computer's desktop:

2.1. Selecting an Activity

SCS Mosaic V3.0 (B213)
Student ID:
Find:
CAPA4_6LARead1_1s CAPA4_7LARead1_3a CAPA4_7LARead1_3b CAPA4_7LARead1_3b CAPA4_7LARead1_3c Ceine
Colors Colors2
Days GeometricShapes
KeyboardU Keyboard1
Keyboard3 Keyboard4
Keyboard5 Keyboard6
Math_FractionDecimalPercent_Level1
Says and spells (in the given color) each 🛆 color in Mosaic's color palette.
Go Quiz Exit
Quiz Review 🗖 Adapt 🗖 Timed

The main *Mosaic* dialog contains a list of *Activities* that are currently available. Select an *Activity* and a description of the *Activity* is displayed in the lower box. Click the **<Go>** button, to start the activity

(Note: you may also double-click on an *Activity* for the same results.)



Using the *Colors* activity as an example, click on the panel with the red button to the far right (*Next*) which will bring up the next color. Continue to click on *Next* until all colors have been shown. When finished with the activity, click the <escape> button on the computer.



2.2. Editing an Activity

SCS Mosaic V3.0 (B213)				
Student ID: **** A F				
Find:				
CAPA2_3MathALG1_1 CAPA2_3MathALG1_3a				
CAPA2_3MathALG1_3b CAPA2_3MathGEO CAPA2_3MathNS1_1				
CAPA2_3MathNS1_2 CAPA2_3MathNS2_1 CAPA2_3MathNS3_1				
CAPA2_3MathSTATS1_3 CAPA3_5LARead1_3				
CAPA4_bLARead1_1 CAPA4_6LARead1_1s CAPA4_7LARead1_3a				
CAPA4_7LARead1_3b CAPA4_7LARead1_3c Coins				
Colors V				
Says and spells (in the given color) each 🛆 color in Mosaic's color palette. 👳				
Go Quiz Edit Exit				
Quiz Review 🗖 Adapt 🗖 Timed				

To change an *Activity*, type the code "MTEACHER" in the Student ID section. Select the activity and then click **<Edit>**. This will invoke the *Set Up* window where you can make any desired *Design* changes.

Says and spells (in the given color) ea Mosaic's color palette.	ch color in Chalacters Left	ine Play Window	
Display At Initialization Individual Buttons Sequence for Button Clicks Bandom Actions for Button Clicks	Button Sequence Record Use	Page Turner Play So of Eacl	ound File Upon Completi n Button Sound
	Settings for Click Number Select Button Click Number		
Play Sound Black Show Picture	(.wav) Play All	ransition	
Show Number 1S	how All		Manage Sound Delay Sound
Show Word(s) Black	UseSound Show All		
Show Color	All Show All	This Button Only From	n this Point Forward Copy Current Check None

2.3. Designing an Activity

SCS Mosaic V3.0 (B213)				
Student ID: **** A F				
Find:				
<new project=""></new>				
1MathNumberSense1_1Counting				
1MathNumberSense1_2NumberTruth				
1MathNumberSense1_2NumberTruth_20				
1MathNumberSense1_3Equals				
I MathNumberSense I_4PlaceValue				
1MathNumberSense2_1AdditionSubtracti				
1MathNumberSense2_21nverse				
1MathNumberSense2_3Morel.ess				
1MathNumberSense2_4Count				
1MathNumberSense2_6AdditionSubtracti				
1MathNumberSense2_7Addition3Number				
2MathNumberSense1_1PlaceValue				
2MathNumberSense1_2Words				
2MathNumberSense1_3NumberTruth				
2MathNumberSense2_1Inverse				
Select this item to start creating a new Activity.				
Go Create Exit				

To create a new activity, type in the code "MTEACHER" in the **Student ID** section. Select "**New Project**>" which is located at the top of the activity list. Click the **<Create>** button. This will invoke the "set up" window where you will identify a name for your project and then design your activity.

(Note: you may also double click "<New Project>" for the same results.)

Create Project?	
What is the name of your project?	(Next)
1	Cancel

3. Mosaic Quizzes

3.1. Selecting a Quiz

SCS Mosaic V3.0 (B213)				
Student ID: A F				
Find:				
CAPA4_6LARcad1_1s CAPA4_7LARcad1_3a CAPA4_7LARcad1_3b CAPA4_7LARcad1_3b CAPA4_7LARcad1_3c Coins				
Colors Colors2 Days GeometricShapes				
Keyboard0 Keyboard1 Keyboard2 Keyboard3				
Keyboard4 Keyboard5 Keyboard5 Keyboard5				
Says and spells (in the given color) each color in Mosaic's color palette.				
Go Quiz Exit				
Quiz Review Adapt Timed				

To select a **Quiz**, highlight the activity name and click on the <Quiz> button. There are several additional quiz options in the outlined box:

Review: this mode allows a student to take the quiz with only the correct answer offered as an option **Adapt:** this mode alters the number of offered answer choices based on the student's progress **Timed:** elapsed and final times will appear at the end of a quiz when this box is checked

Not all activities have quizzes, but those that do will be noted with the **Quiz** icon. To utilize the assessment feature for a student, be sure you enter the student's name in the **Student ID** section *before* clicking on the quiz button.



Using the *Colors* activity as an example again, click on the red button of the panel that indicates the correct answer. There are 4 buttons that coordinate with 4 possible answers on screen. The quiz will automatically move to the next question if the correct answer is selected.



If an *incorrect* answer is chosen, it will be removed from the available options, and the student will try again until he/she selects the correct answer. When the quiz has been completed, a graphic will appear displaying the number of correct answers. The student will be instructed to push a button and the program will go back to the *Mosaic* menu. The student assessment for this quiz will be documented in a notepad file in the *Mosaic* folder.

3.2. Editing a Quiz

There are 2 different types of quizzes that can be edited. One type of quiz is an *automated* quiz in which both the questions and answers are automatically and randomly generated based on a set of programming parameters. Understanding the programming parameters will allow one to generate a variety of quizzes. These quizzes are solely mathematical quizzes.

The other type of quiz is a *manual* quiz in which both the questions and answers are manually entered into the quiz file. The questions will appear in random order but will have the same 4 answers appearing in a random location on screen. These quizzes can include any topic/subject that a teacher would like to assess for his/her students.



Colors		
Die Edit Ven Pgrontes Dools Help		4
3 tax . () . 3 Diero 1	Folders III -	
Alterna P3 C: Wester Colore		- El es
olders	X Badd01.PG	
C CALL Strends L2 C CALL Strends L2 C Call Control Con	Constant Constan	

To edit a *Quiz*, go to the Mosaic folder in C drive and open the activity folder of the quiz you wish to change. As an example, *Colors* is open and the **Colors.smqf** file has been highlighted.





The file format shows the "codes". The first question of the quiz is highlighted above to show that it is just text which will be highlighted on screen as **black**. The word, black, will be heard, as noted by "s: black.wav". The correct answer is always listed as the first answer, but will appear in random order during the quiz. And in this example, the answers are pictures, as noted by "a: black001.jpg" This quiz is an example of a *Manual* Quiz in which all of the questions and answers can be changed according to the programmer's preference. For example, another color can be added to this quiz or the question and answer format can change to include text, pictures, and sounds.

🚨 3MathNumberSense2_2Mul.smqf - Notepad		×
<u>Fi</u> le <u>E</u> dit F <u>o</u> rmat <u>Vi</u> ew <u>H</u> elp		
<pre>4RIGHT 4LEFT 4CORNER DQUESTION TQUESTION TQUESTION RANDOM "q:" indicates the beginning of a question. Question can be text or .jpg files. "s:" indicates that a sound file is to played with the question "a:" indicates that a sound file is to played with the question "a:" indicates one choice on this line (one answer per line). There can be up to eight total choices. The first answer will be the correct answer. Answer choices can be text or .jpg files. "e:" indicates the end of a question. If no answers are in between, then any button click will continue. "mn:" indicates math number in the range of 0-12, this starts the math sequence if # are used, it indicates that random numbers are to be chosen with that many digits ## = one digit ## = three digits and so on "mo:" indicates math operation in the range of +, -, /, X, this must be the last command in the file // means do divisions but only support integer answers means do substaration with only positive and support only integer answers (only meaningfi xs means only do multiplications with a single divisor and support only integer answers (only meaningfi xs means only do multiplications with a single multiplier (only meaningful for mo: #) "%n" indicates to ggling of highlighting. f: nnnnnnn + nnnnnnn = nnnnnnn </pre>	iul for n	
	2	×
		111

	4 X 8	-	
15	22	32	4

The quiz above is an example of an *Automated* Quiz in which all of the questions and answers are generated automatically via a specific set of parameters. For example, in this quiz the "**mn**" indicates a math number in the range of 0-9 with "#" symbol representing a one digit number. The "**mo**" indicates the operation. In this example, it is represented by "x" or multiplication. So, this quiz generates single digit multiplication problems.

3.3.

To design a *manual* quiz, simply open the *QuizTemplateManual.smqf* file and fill in the information for each section. Use "save as" feature to rename the file and save to hard drive. Certain parameters are required such as *font* "*f*", *template* "*t*", *question* "*q*" and *answer* "*a*". Other parameters are optional and can be included as desired

🖡 QuizTemplateManual.smqf - Notepad	
<u>File E</u> dit F <u>o</u> rmat <u>Vi</u> ew <u>H</u> elp	
; Quiz Template Manual ; File format: ; "f:" indicates the font size to use. ; This font string indicates the maximum number of strings per line, the default is 40. ; f: 1234 -> would indicate that the maximum line length will be 4 characters. ; "t:" indicates the kind of template to use. ; 4BOTTOM (default) ; 4DP	
4RIGHT 4LEFT 4CORNER DQUESTION TQUESTION RANDOM "b:" indicates a background JPG (optional). "q:" indicates the beginning of a question. Question can be text or .jpg files. "s:" indicates that a sound file is to played with the question (optional) "a:" indicates one choice on this line (one answer per line). There can be up to four total choices.	
; The first answer will be the correct answer. Answer choices can be text or .jpg files. ; "e:" indicates the end of a question. If no answers are in between, then any button click will conti ; "%n" indicates the start of a new line.(optional) ; "%h" indicates toggling of highlighting. (optional) f. ####################################	inue.
a:	► .::

To design an *automated* quiz, open the *QuizTemplateAutomated.smqf* file and add the information for each section. Use "save as" feature to rename the file and save to hard drive. Certain parameters are required such as *font "f"*, *template "t"*, *math number "mn"*, and *math operator "mo"*. Other parameters are optional and can be included as desired.

DuizTemplateAutomated.smqf - Notepad	
Elle Edit Format View Help	
;Quiz Template Automated	~
; File format:	
; "f." indicates the font size to use.	
; This font string indicates the maximum number of strings per line, the default is 40.	
; f. 1234 -> would indicate that the maximum line length will be 4 characters.	
; "It:" indicates the kind of template to use.	
4DOTTOM (default)	
, 410P	
, and the second s	
DQUESTION	
TQUESTION	
RANDOM	
; "b:" indicates a background JPG.	
; "mn:" indicates math number in the range of 0-12, this starts the math sequence	
; if #s are used, it indicates that random numbers are to be chosen with that many digits	
; #= one digit	
; ## = two digits	
; $\#\#\#$ = three digits and so on	
; #n invits a 2 digit range (e.g., #2=20, #3=30, #4=40,)	
, #3 - Wo digits using money math	
+ = two diaits and so on using money math	
# = three digits and so on using floating point math	
"mo:" indicates math operation in the range of $+$ -, $/ \times$ this must be the last command in the file	
+ means do addition of 2 numbers (supports #\$, #.)	
+3 means do addition of 3 numbers	
; - means do subtraction (supports #\$, #.)	
; means do substaration with only positive answers (supports #\$, #.)	~
	>

Q)uizT	emplat	eAuto	mateo	d.smqf - Notepad		X
Eile	Edit	F <u>o</u> rmat	View	<u>H</u> elp			
					// means do division but only support integer answers /s means only do divisions with a single digit divisor and support only integer answers (only meaningfi /1 means only do divisions with a 1 as the divisor (only meaningful for mn: #) X means do multiplication XS means only do multiplications with a single multiplier (only meaningful for mn: #) X1 means only do multiplications using 1 as the multiplyer (only meaningful for mn: #) X0 means only do multiplications using 0 as the multiplyer (only meaningful for mn: #) L operator for the largest or smallest possible number using a set of digits up to 4 digits (only meanin S operator for the largest or smallest possible number using a set of digits up to 4 digits (only meanin S operator for the odering of numbers (only meaningful for mn: #) P operator for identifying place values of numbers up to 4 digits (only meaningful for mn: #, but number R operator for identifying rounded off numbers (only meaningful for mn: #) S soperator for computing unit costs (only meaningful for mn: #) S operator for computing unit costs using a single digit divisor and support only integer answers (on IX means do multiplications with a inverse answers (only meaningful for mn: #)	ful ngt er nly	
f: ## t: 4E mn: mo:	#### 30TT ## \$	//////// # OM	"% "% 	n" ind h" ind	I+ means do additions with a inverse answers (only meaningful for mn: #) < means do <=> comparisons (only meaningful for mn: #) < means do <=> comparisons of floating point numbers with either 1(.) or 2() decimal digits (only W means do a word description using the number in question and words in the answer(only meaning w means do a word description using words in question and the number in the answer(only meaningful = determine equality (e.g., 8 is 4+4, 5+3, 2+2+2,) (only meaningful for mn: # internally limited to ###################################	r n gfu ful	
<						>	

4. Mosaic Communicator

4.1. Selecting a Communicator File

SCS Mosaic V2.0a (B135)
Student ID:
Filter:
<c>Sean ^ <c>Tasha</c></c>
<c>Tasha_Car <c>Tasha_Home</c></c>
<c>rasna_Meals <c>Tasha_School 1MathNumberSense1 1Counting</c></c>
1MathNumberSense1_2NumberTruth 1MathNumberSense1_2NumberTruth_20
1MathNumberSense1_3Equals 1MathNumberSense1_4Words 1MathNumberSense1_5Coins
1MathNumberSense2_1AdditionSubtracti 1MathNumberSense2_2Inverse
1MathNumberSense2_3MoreLess 1MathNumberSense2_4Count 1MathNumberSense2_6AdditionSubtraction
Go
🔽 Use Quiz Background 🗧 Timed

A communicator file will be recognizable by the **<C>** symbol in front of it. Highlight with the cursor and select **<Go>**.

School	Meals	Sports	Home
i kanin (k Tapit			

The initial screen will include 4 categories which utilize a "tree" structure to support unlimited depth and sequence for each category depending on its complexity. Voice or sound can accompany each category, also. Every communicator file can be customized with specific categories, photos/clip art, and sounds to meet specific needs of the user.

Breakfast	Lunch	Dinner	Snacks
		N.	
(\circ)			

Selecting "**Meals**" from above brings up these 4 options from which to choose. The user can then determine which category fits his/her needs at the time and continue making choices.

Selecting "**Breakfast**" from above brings up these 4 options from which to choose.

Eggs	Strawberries	Cereal	Bagel
	(ATRON		

Milk	Orange Juice	Apple Juice	Water
		and the second second	······
			1

Select any of the breakfast items from above and then a list of drink options will appear. Once a drink is selected, the meal menu will appear again. The entire file can be closed by selecting the **<esc>** key on the keyboard.

4.2. Editing a Communicator File

Any of the Communicator files can be edited by selecting the file from the Mosaic folder in the C: drive. Because files build upon one another, it is important that when a change is made in one file, it is reflected in any other files to which it is connected.

Sean			
File Edit View Favorites Tools Help			A1
3 Back • 3 . 3 . 5 Search	🍋 Folders 🛄 •		
Address C: Mosaic Sean			🕶 🛃 Go
Folders	× 10300ANA.3	G Dinks.smcf) pizza.wav
C SA LINSS off	aiphabet.jp	a drinksav	Play.wav
C) Sean	alphabet.w	w 🗾 Eating.jpg	Please.wav
Contillards Erst	Apple001.js	g Egg001.jpg	Duesadila001.JPG
Codellande Evelt	Apple002.3	G 🛃 Egg002.3PG	Duesadila002.JPG
Cohli Words Drawing	Apple.wav	eggs.wav	Quesadila.wav
California Department	Apple Juice	01.3PG Barnes001.3PG	ReadMeAStory.wav
Calentiada Donas	Apple Juice.	vav 💼 Games002.3PG	RMASTheNorthWindAndTheSun 1. 3PG
Calentiada Demart	bacon.wav	3 games.wav	school.smcf
Cabalianda Connel 2	Bagel001.3	G grapes.way	School.way
Cabillords Canada	Banana001	ipg Dam,wav	Sean.smcf
Cabiblinds Sectoria	bananas.w	v a hamburger.wav	shapes.JPG
CA Schullende Third	Bicyding2.1	g Nome.smcf	shapes.way
Spheriords_Inite	Bicycling.via	v bome.wav	Shooting. JPG
Cumbalat	breakfast.s	ncf Blouse001.jpg	Shooting.wav
Symbols 1	Breakfast.v	av IceCream001.3PG	Skating003.3PG
Tasha Can	cake.wav	J IceCream.way	Skating.way
Lasha_Car	Candy001.	DD ElongA.JPG	Sleep.way
Lasha_Home	andy.wav	Junch.smcf	Sleeping.JPG
Tasha_Meas	Carrots001	JPG Junch.wav	Sleeping.way
Tasha_school	arrots.via	meak.smcf	snacks.smcf
ieingime_Analog_Hamour	Cereal001.	PG eais.way	snacks.wav
leingtme_Analog_Hour	Cereal.way	MIRO01.3PG	Placerts.smcf
Leting time_Analog_Quartered	Cheese001	JPG Dimik.way	Stranberries001.JPG
ieing ime_uigtai_Hamour	Cheese way	numbers001.wav	strawbernes.way
Teangtime_Digital_Hour	Chos001.3	G 🕅 numbers.tpg	Swimming. pg
Teingtime_olgital_QuarterHol	chips.way	Crange Lice 001. 3PG	Swimming.way
ToPrint	El colors, JPG	Orange Juice way	TelingTime.way
WaterssightWords_List1	Cookies001	3PG 3 pancakes.wav	ThankYou.way
waterssigntwords_ust2	Cookies.wa	Pasta001.JPG	WatchingTV001.3PG
waturs5ightWords_List3	Com.way	pasta.jpg	WatchingTV002.JPG
wationssigntwords_List4	A desserts.sn	of Pasta.way	WatchTV.wav
WatensSightWords_List5	desserts.w	Pear001, 3PG	Water001.JPG
WatkinsSightWords_List6	Didner.smc	a) peas, way	Water.way
WhatAmI	a doner.way	Pencil001. top	> WillYouPleaseHeipMe.way
Words_AN	The second states		C. I and the second state of the second
Words_AT	~ <		

In this example, we open the communicator folder named *Sean*, and highlight the notepad file,<meals.smcf>.

🚺 meals.smcf - Notepad	
Elle Edit Format View Help	
<pre>standard Communications file format p1: egg002 jpg s1: breakfast wav t1: Breakfast n1: breakfast smcf p2: quesadila002 jpg t2: Lunch s2: lunch.smcf p3: pasta001 jpg t3: Dinner s3: dinner.wav n3: dinner.wav n3: dinner.wav t4: Snacks n4: snacks.smcf</pre>	
	22100

Once opened, the 4 different categories can be modified with new pictures, new sounds, new text, or a new "tree". The "tree" or level is what that category will link to when selected.





If one wishes to change the current picture for breakfast (**P1**), from an egg to cereal, a new jpg must be entered on the P1 line and the actual jpg must be present in the *Sean* communicator folder. One could also change the current text for *Lunch* (**T2**) to *Mid-day Meal*. The new name needs to be entered on the T2 line.



4.3. Designing a Communicator File

Creating a new Communicator file requires access to a Communicator template file. First, it is beneficial to "sketch" out a tree prior to creating the files, so one knows which files will connect and layer to other files. An example is shown below:



For example, the first level of *Sean.smcf* will include the first 4 categories (School, Meals, Sports, Home) and they will each be identified by number. Each category can then include a \mathbf{P} (picture), \mathbf{T} (text), \mathbf{S} (sound), and/or \mathbf{N} (next "tree").

