



Alternative Access Tutorial



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Credits

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Introduction and Launching the Program

Introduction

IntelliMathics is designed to reinforce math concepts through the use of on-screen manipulatives. Like a tool, it is open-ended and can be used in a wide variety of ways. Like a curriculum product, it can be used to teach specific math skills. This tutorial has been designed to introduce you to the key features of *IntelliMathics*.

On-Screen Palettes, Gear Items, and Manipulatives

Math manipulatives help make abstract ideas concrete. A picture may be worth a thousand words, but there is no substitute for working with real objects. Manipulatives give students a way to construct physical models of abstract mathematical ideas. They enhance understanding and provide ways for students to test their hypotheses. Unfortunately, fine motor challenges often make access to manipulatives a frustrating experience.

Using *IntelliMathics*, students will be sorting, counting, computing, and working on math concepts.

Sorting Bins, Counting Boxes, Geoboards, Venn Hoops and Decimal Grids are part of the *IntelliMathics* collection of gear. These gear items and on-screen manipulatives enable students to explore, create, and understand essential math concepts. For instance, *IntelliMathics* gear and manipulatives allow students to sort by attributes, construct a triangle, compute the area on a geoboard, visualize fractions, and solve math problems with base ten blocks.

You can add on-screen palettes to your documents that can be used to generate manipulatives.

Ready to Use Templates and Activities

IntelliMathics comes with more than 50 activities and templates. These are ready for you to use with students. They can also be modified and adapted for use in creating your own activities, as you will see in the tutorial.

Branching Palettes

IntelliMathics allows you to hide palettes and open them through on-screen items or buttons. The ability to branch from one palette to another enables you to create complex activities without crowding the screen.

Exchange Documents between Macintosh and Windows Computers

IntelliMathics will operate in a similar manner on either Macintosh or Windows platform. Documents created using this program will run on either a Macintosh or Windows computer.

Launching the Program

Once you have installed *IntelliMathics* on your computer, use one of the following procedures:

Launching *IntelliMathics* on a Windows system

1. From the Start menu, select Programs \ IntelliTools Software \ *IntelliMathics*.
2. Click the *IntelliMathics* icon.

Launching *IntelliMathics* on a Macintosh system

1. Double-click the *IntelliMathics* folder on your desktop (or wherever you placed it during installation) to see its contents.
2. Double-click the *IntelliMathics* icon.

Begin with Exploring *IntelliMathics* Tutorial

IntelliMathics is accessible to keyboard, mouse, IntelliKeys, and switch users. To acquaint yourself with standard program access features, begin by completing several parts of the Exploring *IntelliMathics* Tutorial using an IntelliKeys keyboard with Standard Overlays. Then proceed with this Alternative Access Tutorial to learn additional skills.

1. Place the Attributes Blocks Overlay on IntelliKeys.
2. Turn to page 2 of the Exploring *IntelliMathics* tutorial and complete steps 2-5.
3. Now turn the overlay over, so that the Base Ten Blocks side is showing on IntelliKeys.
4. Turn to page 4 of the Exploring tutorial and complete steps 1-7.
5. Change to the Fraction Bars overlay.
6. Turn to page 6 of the Exploring *IntelliMathics* tutorial and complete steps 1-6.
7. If time permits, try some of the Blocks - Base Ten, Fractions, or Patterns Activity Templates using these overlays.

Exploring Alternative Access Features

Creating An Overlay for IntelliKeys

If you have *Overlay Maker* installed in your computer, you can easily generate overlays for *IntelliMathics* activities for use with IntelliKeys.

Note that all of the *IntelliMathics* Blank templates and Activity templates include a navigation palette for IntelliKeys users. You will learn how you can add this palette to an overlay so that IntelliKeys users can select and move on-screen manipulatives.

1. From the **File** menu, select **Open**. Click the **Template** tab. From the Subject Area drop-down list box, select **Number Sense**. Select **Seashore Animals** from the list displayed. Click **Open**.
2. **Save** this file as a document in your portfolio using the name "Seashore Animals."
3. From the **IntelliKeys** menu, select **Make Overlay**. The Make Overlay dialog box appears.
4. Notice that the three palettes that appear in the document are listed in this dialog box. Selecting any palette (by clicking the box to make an X appear), includes it in the overlay. If it is not already selected, click **IntelliKeys Arrows**. Also be sure the **Fit to Keyguard** option is selected.
5. Click **OK** to close this dialog box.
6. The Save As dialog box appears and the program automatically assigns Seashore Animals Overlay as the suggested name to go with the file. Click **Save**. The overlay is saved into the Overlays folder (located in the *IntelliMathics* folder).
Overlay Maker, if installed, will launch automatically. The file is named and the overlay and its key content are instantly created.
7. Use *Overlay Maker* to make any edits to the appearance of the overlay. From the **File** menu, select **Save** to save modifications that you have made. From the **File** menu, select **Print**. You can use the printed overlay with a fifteen-hole key-guard.
8. From the **File** menu, select **Quit** (Macintosh) or **Exit** (Windows) to close *Overlay Maker*. You will return to the open *IntelliMathics* document. The overlay will be attached to the document and will automatically be sent to IntelliKeys.



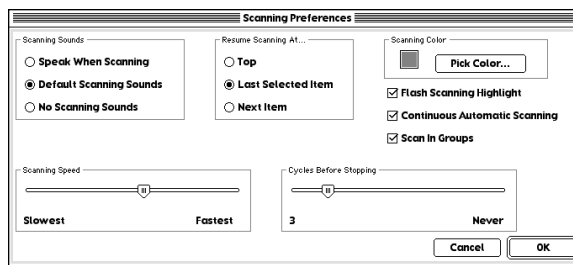
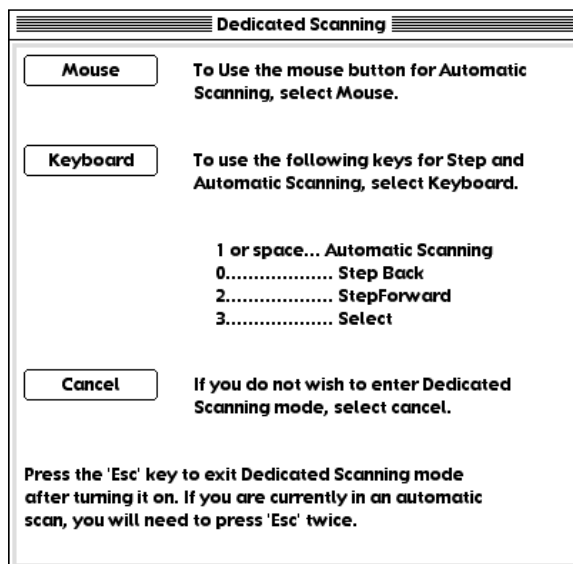
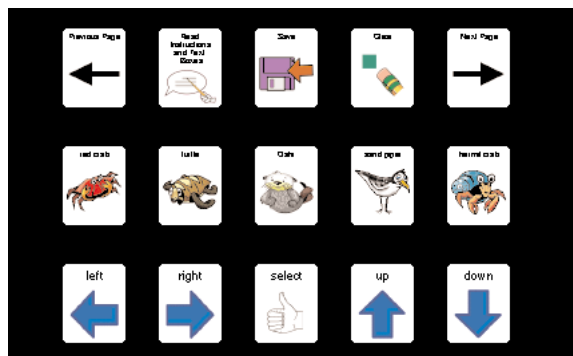
To verify that the overlay is attached, from the IntelliKeys menu, select **Attach/Edit Overlay**. You will see the Seashore Animals Overlay is listed and will be sent each time this file is opened. Select **OK** to close this dialog box.

8. Place the overlay on the IntelliKeys.
9. *IntelliMathics* is designed and programmed to scan every interactive grouping in the open document. If you have a switch attached to your IntelliKeys, press the switch to start the scanning process. Use the numbers on the top of your regular keyboard to change the speed of the scan from 1 (slowest) to 9 (fastest).

Dedicated Scanning

Palettes and manipulatives are available to students who access the computer using switches. If you are not using an IntelliKeys for switch input, you can initiate scanning using the Dedicated Scanning feature along with a mouse, a standard keyboard, or a switch attached to an alternative switch interface.

1. From the **Options** menu, select **Dedicated Scanning**. The Dedicated Scanning dialog box appears.
2. To use the mouse as a switch, click **Mouse**.
3. The program will begin scanning when you click the mouse once. To select a highlighted item, click the mouse again.
4. Press **[Esc]** twice: once to exit Dedicated Mouse scanning and once to exit Automatic scanning.
5. From the **Options** Menu, select **Scanning Preferences**. The Scanning Preferences dialog box appears. It lists options for customizing scanning and scanning feedback.
6. In the **Scanning Sounds** box, click the radio button next to **Speak When Scanning**, so a dot appears in the circle.
7. From the **Options** menu, select **Dedicated Scanning**. Click **Mouse**. Click the mouse to begin scanning. Notice that this time the palette names and palette items are spoken out loud as they are scanned.
8. Press **[Esc]** twice to exit scanning.



Menu Protection and Simple Menus

First, explore this playful activity that allows students to find a partner, roll virtual dice, and count their favorite critters. The teacher can make rules and set limits. You can also limit students' access to the *IntelliMathics* menus.

1. From the **File** menu, select **Open**. Click the **Template** tab. From the Subject Area drop-down list, select **Number Sense** and then the **Farm Animal Game**. Click **Open**.
2. This is a two-person game. To begin the game, each person chooses an animal and selects a box. Take turns rolling the die and counting out the correct number of critters. Players also have to "catch" the animals and place them into the correct box!
3. There are several different ways to prevent students from editing an activity. One way is to select **Simple Menus** from the **Options** menu. The Simple Menu option restricts access to these menus: Pages, Create and Gear.
4. If your students are a bit more inquisitive, you may want to use the Menu Protection feature. Menu Protection will deny access to the desktop from an *IntelliMathics* activity.

5. First, from the **Options** menu, select **Standard Menus**. Next, from the **Options** menu, select **Menu Protection**. Read the warning box and click **OK**.

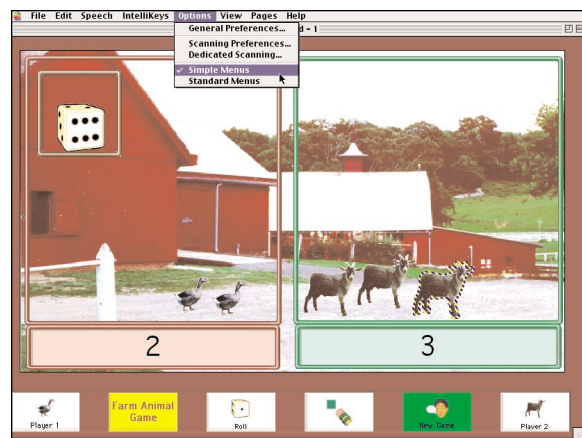
Reminder: To exit Menu Protection, press [**Control**]+[**F9**].

6. You can also set a password to control access to the document's menu bar. This prevents the document from being modified.

While it is important for students and teachers to be able to author activities, there are also times when you want students to only work on activities but not change them.

7. Close the **Farm Animals Game** template.

Be sure to visit the IntelliTools Web site at www.intellitools.com.



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