

## **Tutorial 1: Introducing Game Maker**

In order to study game design, you will need to use software to create a variety of different projects. The *games themselves will be built using special software that contains all of the tools that you will need to build a playable game*. This software is referred to as a **game engine**. There are numerous popular game engines used in game designing and building. **Game Maker** is a **user friendly** game engine that you will study and use for your first game designing and building experiences. **Game Maker** is a tool that uses **drag and drop** procedures, as well other more advanced skills, to create the game programs. The first step in learning Game Maker is to become familiar with the **global user interface**, including where to find and how to use all of the tools that you need. Tools can be accessed in the menu bar and toolbar. In this tutorial, you will find information about and become familiar with this global user interface, as well as get to know various tools found in the menu and toolbar. You will also see how to use various graphic and sound resources in game building and organize them in the **resource explorer**. To make it fun, you will build your first game following a tutorial aptly titled “Your First Game”. This tutorial will be found in the **tutorial window**. You will build all of your game parts with **drag and drop** instructions that are needed to give your game some action! The **main form window**, the largest part of the interface, is where this building will occur. It is in this section of the interface that you will use **forms**, which are windows used to add the information needed to create action.

This tutorial will occur in three major parts, or *stages*. In **STAGES 1 and 2**, you will learn the layout and set up of the **global user interface** and browse the list of various menu items that can be found in the menu bar and toolbar. Additionally, you will recognize the look and buttons of a typical **form** for creating actions. In **STAGE 3**, you will become more familiar with the Game Maker engine and the global user interface by building your first game following a separate tutorial embedded in Game Maker. You will record what you learn in **STAGES 1 and 2** on the document called *Tutorial Guide: Introducing Game Maker*. This document will be downloaded for completion, and then the finished document will be uploaded to the teacher. **Using the Glossary, find the definitions for the new vocabulary in boldfaced red and write them in the section provided on your Tutorial Guide.**

**AS YOU READ THE TUTORIAL, BE SURE TO COMPLETE THE TUTORIAL GUIDE STAGES AS PROMPTED. BEFORE PROCEEDING, DOWNLOAD THE WORKSHEET FOR THIS TUTORIAL ENTITLED *Tutorial Guide: Introducing Game Maker*.**

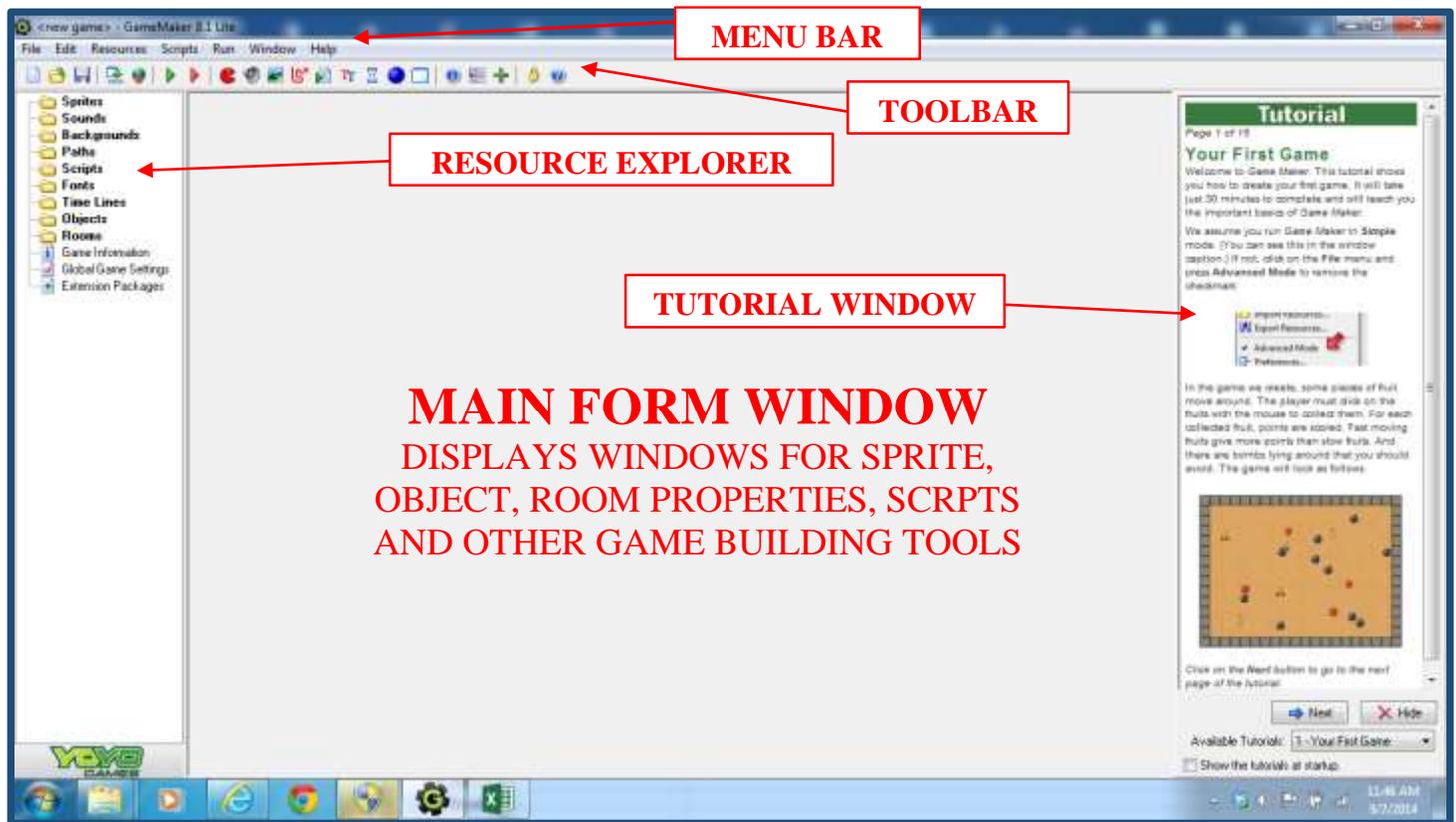
- **Save it as a document with the file name <initials\_introgmt> E.g. fk\_introgmt .**
- **Open it and identify with your name in the space provided.**
- **You will upload this document at the end of the tutorial.**

### **STAGE 1:**

#### **Getting to know the Global User Interface in Game Maker**

The **Game Maker** software engine has many tools for the creation of computer games. Your favorite computer games probably have many features that make it fun, including objects that you can control, various levels of challenge, awesome visual and sound effects, and much more. **Game engines** like **Game Maker** have many of the game building tools needed to build such fully interactive games. In order to start being a game designer with Game Maker, you will first need to become familiar with the basic parts of the **global user interface**.

Study the graphic below showing the basic layout of the global user interface in Game Maker. You will see five sections of the interface labeled as menu bar, toolbar, resource explorer, and tutorial window, and form window. Below the graphic is a description of each section.



**menu bar** - A horizontal bar located at the top of the screen below the title bar, containing drop-down menus accessing a variety of *tools and resources\** needed for the Game Maker application.

**toolbar** - A horizontal bar located below the menu bar containing graphic buttons or icons which open frequently used *tools and resources\** in the Game Maker application.

**resource explorer** - Contains a “tree-like” view of all folders used to organize, name, and open all graphic and sound resources that you create for your game.

**tutorial window** - Contains two Game Maker tutorials for learning some basic game building skills and familiarization with the Game Maker application.

**main form window** - The area of the global user interface which displays the form windows for creating graphic and sound resources, along with their action properties.

**\*NOTE:** For detailed descriptions of tools and resources in Game Maker, refer to the *Concepts Explained* section titled *Game Maker Tools and Resources*.

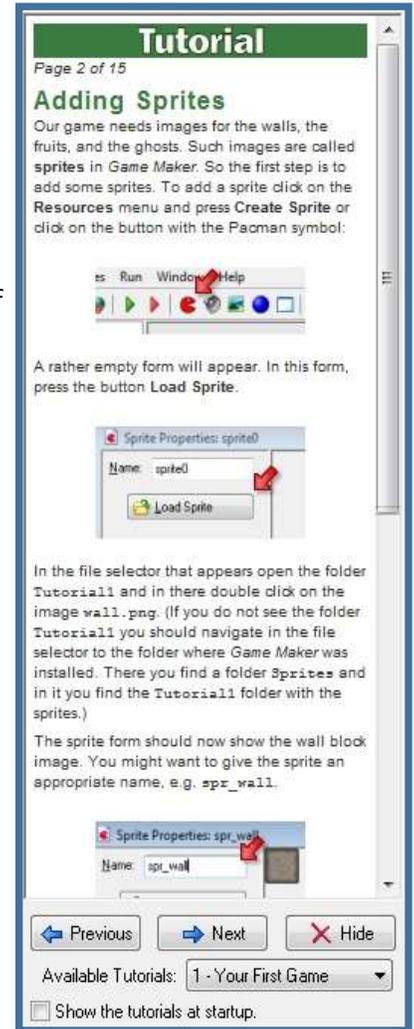
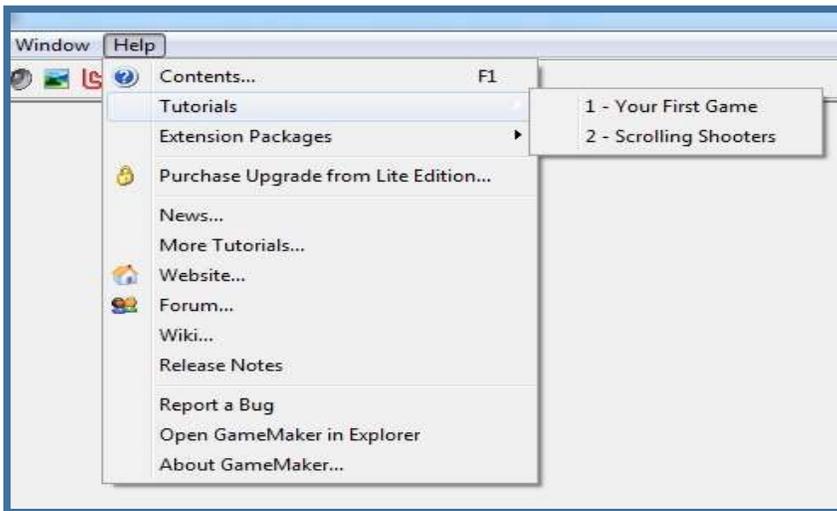
## DO THIS ON YOUR TUTORIAL GUIDE

**STAGE 1 TUTORIAL GUIDE EXERCISE:** Find the **STAGE 1** section on your Tutorial guide. Label the graphic of the five sections of the global user interface for Game Maker. In the five numbered spaces under the graphic, write the name of each section with a short explanation of the purpose of each.

## STAGE 2:

### The Tutorial Window

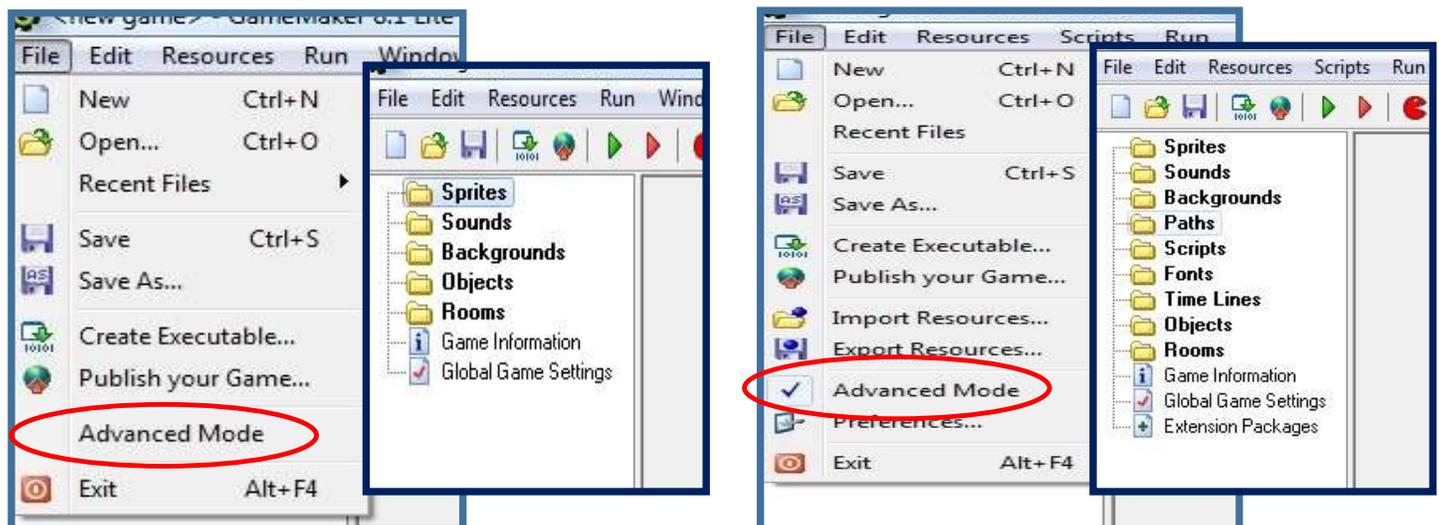
When you launch Game Maker for the first time, you should see the global user interface appear as a window and it would show as it does in this tutorial. The tutorial window will be active with a beginning game build called “Your First Game”. It will have Next and Previous buttons to navigate you from page to page through the tutorial (see graphic on right). You may need to use the scroll bar on the right to scroll down through the window to see all steps of the tutorial. When you are not completing tutorials from the window, you can close it with the Hide button. It can be reopened by going to the **Help** drop down menu in the menu bar, then selecting **Tutorials** along with one of the two tutorials in the list (see graphic below)..



### Mode Settings

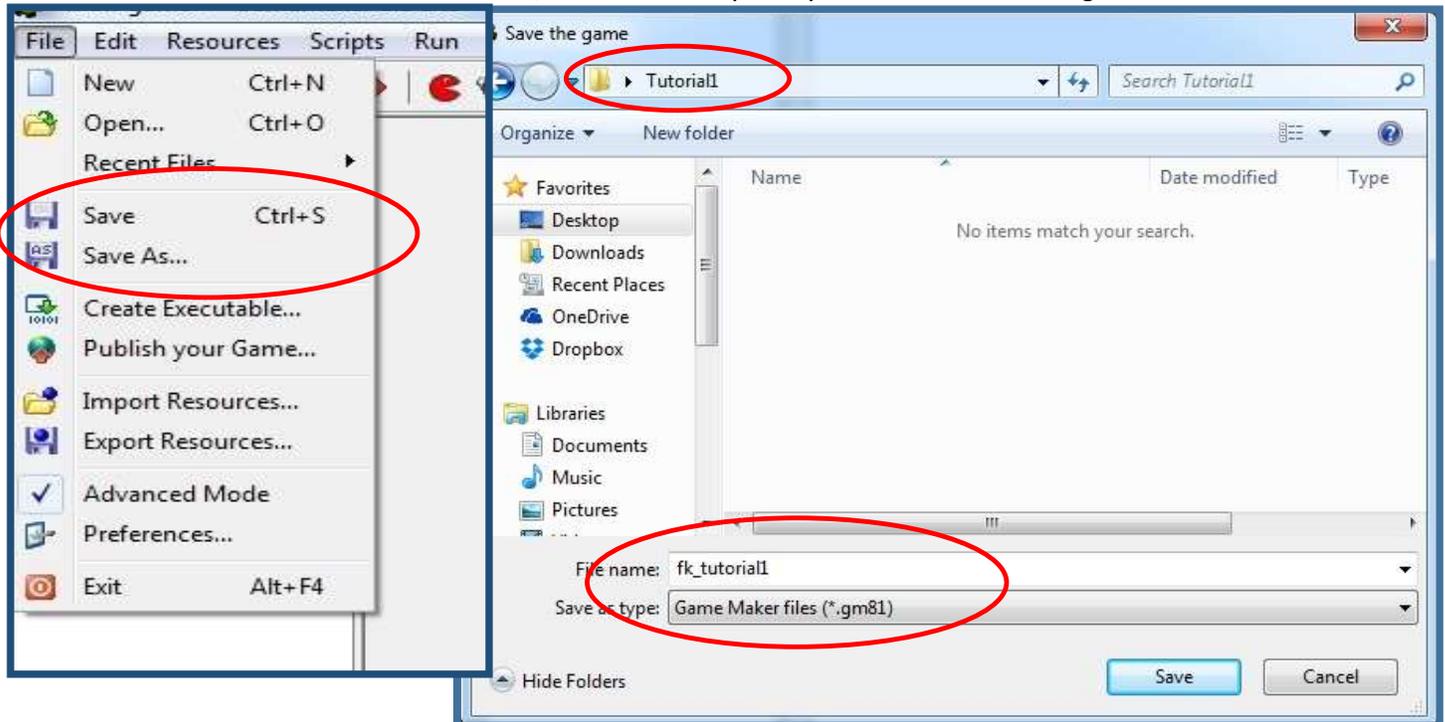
Game Maker can be used in *Simple* or *Advanced Mode*. Simple mode allows you to perform basic setting up of properties for elements of your games. Setting up for Advanced Mode includes all of the features of Simple, but contains additional resources, buttons, and menu items allowing for more possibilities. You move from Simple to Advanced and back again by checking or unchecking Advanced Mode in the File drop down of the Menu bar. “Your First Game” will be done in Simple mode, which means Advanced Mode will be unchecked (see bottom left graphic). Most other game builds in the future tutorials will be done in Advanced Mode (bottom right). The graphics below illustrate the changing of modes and some feature changes for each.

**NOTE: When you start and save a game, you cannot reopen and switch modes for that game build. You must continue building in that mode, or restart Game Maker and begin the build again in a different mode.**



## Setting up and Saving Game Maker Projects

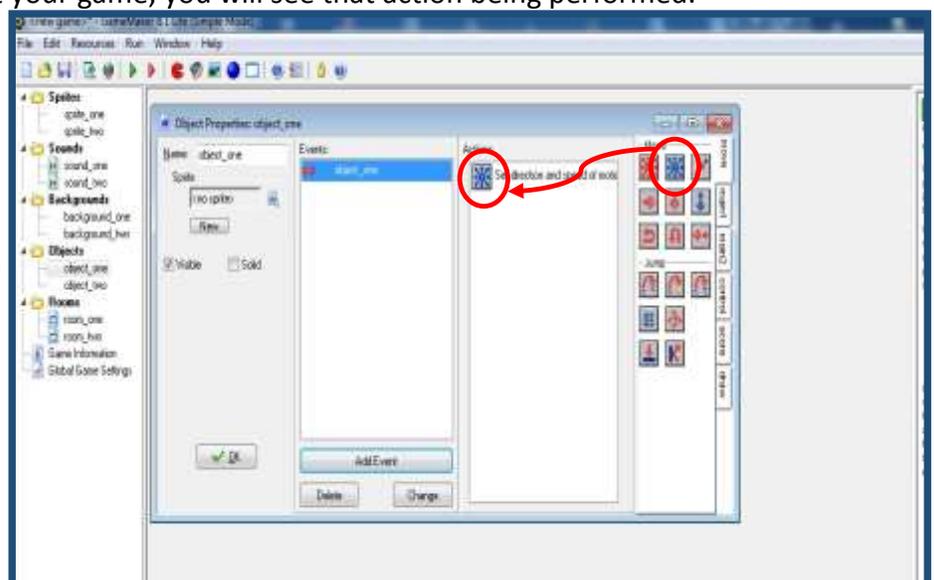
When starting a new game project, it is important to set up Game Maker properly. After launching Game Maker, you need to **check** or **uncheck Advanced Mode** based on your needs. If you are not using the Tutorial window, click on **Hide** to give yourself a larger Form window. After that, you should save the file by going to the **File** drop down menu and selecting **Save** or **Save As**. This process can also be started with a click on the disc icon in the toolbar (📁), or with the hotkeys *Ctrl+S*. When the **Save** window opens, select the *Save in* folder or volume where you want it saved and then name the file with your name initials followed by a description. In this case you will be naming it *initials\_tutorial1* (E.g. *fk\_tutorial1*). Click **Save** and it will automatically save as a Game Maker file, with a *.gm81* file extension if you are using the Lite version of Game Maker 8.1. For more information on this, refer to *Concepts Explained* under *Naming Conventions*.



## Dragging and Dropping Properties in a Form

When you create properties for objects in your game, you will need to open property **forms** in the **main form window**. You will have to **Add Events** and then give those events **Actions** to perform in the game. **Actions** are added by **dragging and dropping**. This means that you will use the mouse pointer to grab the action that you want from the tabbed section on the right side of the properties window, then drag it to the **Action** section, then drop it there. When you play or test your game, you will see that action being performed.

There are many actions that your game Pieces, called objects, can perform. They can be set to move on their own or under player control. They can be jump, bounce, change appearance, disappear, as well as many more actions. The action options are organized in groups with the tabs found on the far right of the properties from. From there, they are dragged and dropped as actions.



## DO THIS ON YOUR TUTORIAL GUIDE

**STAGE 2 TUTORIAL GUIDE EXERCISE:** In the spaces provided for **STAGE 2**, answer the questions about the tutorial window, mode settings, setting up Game Maker, and drag and drops.

### STAGE 3:

**BEFORE PROCEEDING**, use your mouse to right click on the desktop. Select **New** then **Folder**. Name that folder **Tutorial1**. You will use that folder to store your game build from **STAGE 3**.

### Launching Game Maker

Now it is time to experiment with the Game Maker application. To launch this game engine, you will need to click on the Game Maker icon on your computer desktop. It looks like this (  ). After launching Game Maker, do the following.

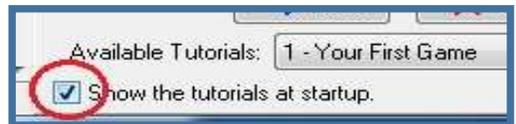
- 1- From **File** in the Menu Bar, make sure that **Advance Mode is unchecked** so that Game Maker is running in Simple mode. Refer to the graphic on left under the *Mode Settings* section in **STAGE 2**.
- 2- From **File** in the Menu Bar, select Save. When the Save as window opens, find and select the **Tutorial1** folder on the desktop. Name the file with your initials and the descriptive name for this tutorial < *initials\_tutorial1* > E.g. **fk\_tutorial1** OR **fkjh\_tutorial1** if there are two students in your group. Refer to *Setting up and Saving Game Maker Projects* in **STAGE 2**.
- 3- Click **Save**.

Before proceeding, **use your mouse to click on various menus in the menu bar and browse the drop down menu commands**. Don't forget that you can get more information about the commands and resources by referring to the *Concepts Explained* section titled *Game Maker Tools and Resources*. Then, try **hovering your mouse pointer over the icons in the tool bar**. You will see pop-ups that identify the resources or actions by name. For example, if you hover your mouse over the red "pacman" icon you should see a box pop-up saying "Create a sprite". Spending a few minutes exploring the menu bar and toolbar will help you get familiar with the tools.

### Opening the "Your First Game" Tutorial

Look on the right side of the main form window to find the **tutorial window**.

If you do not see it, go to the **Help** menu in the menu bar and select **Tutorials** then *Your First Game*. Once the Tutorial window is activated, make sure to check the box next to "Show the tutorials at startup".



### Complete the "Your First Game" Tutorial

Refer to STAGE 2 section titled The Tutorial Window as needed throughout the "Your First Game" tutorial. Use the **Next** or **Previous** buttons to navigate. Your teacher will show you how to find the graphic and sound resources (called *assets*) that you will need to build your game. It is a fifteen page tutorial, so take time to carefully complete procedures on each page before going to the next.

 **SAVE OFTEN!**

**CONTINUE ON NEXT PAGE**

**DO THIS ON YOUR TUTORIAL GUIDE**

**STAGE 3 TUTORIAL GUIDE EXERCISE:** Find the **STAGE 3** section of your tutorial guide. After completing “Your First Game”, answer the essay questions about your game build experience. You will see how problem solving in design is emphasized.

**END OF TUTORIAL. REMEMBER TO UPLOAD YOUR TUTORIAL GUIDE WHEN COMPLETED**