Content Formats

**By Vinnie Simonetti**

This document is intended to explain the file formats used by SGDe.

## Hierarchy

* Game
  + Sprite Sheet
  + Map
    - a

## General format

For the format, XML is the primary data format and comprises of XML elements and attributes.

## \*.sgde

An SGDE is a XML document that links defines different document types together.

### Types

#### Sprite Sheet

//TODO

#### Entity

//TODO

#### Map

//TODO

#### Game

This is the central file type and the only one required to be included in a game’s content project.

##### Format

A game comprises of two XML Elements: *Game*, and *Settings*. “Game” must always precede “Settings” otherwise the content system will not be able to process it.

A “Game” is the resource definition of what maps the game contains. “Settings” defines the game’s settings (screen, window, etc.) and map order.

###### Game

Child elements:

* Maps: This is a list of maps used by the game. Contains a list the following elements:
  + Map: An individual game map. This contains an ID attribute that contains a unique, positive integer that will be associated with the map. It contains a Layout element. A layout element can contain either a map or a map reference. A map reference specifies the relative SGDE file that is a Map.

###### Settings

Attributes:

* SpriteSheet: This is the entire game’s SpriteSheet and defines all textures and global animations. If this attribute doesn’t exist then the game will attempt to compile “SpriteSheet.sgde” which is the default file.

Child elements:

* MapList: A MapList defines the order of the maps and the initial map to load. It contains the following elements:
  + Map: This defines the map to use. Attributes:
    - Required:
      * ID: A positive integer that references the ID of the map to use.
    - Optional:
      * Name: The name of the map.
      * InitialMap: The first map to load. There can only be one InitialMap for a game.
* DefGameSettings: Default game settings for the game. The default value for all of these, match the default value of the settings used by the type SGDE.Game. Elements:
  + Screen: Defines the default settings for the game screen. Attributes:
    - Fullscreen (Windows/Windows Phone): Boolean value defining if the game is fullscreen or not. [Default: false]
    - VSync: Boolean value defining if VSync is enabled. [Default: false]
    - Multisample: Boolean value defining if multisample, or anti-aliasing, is enabled. [Default: true]
    - Width (Windows/Windows Phone): Positive integer defining the width of the game screen.
    - Height (Windows/Windows Phone): Positive integer defining the height of the game screen.
  + Game: Defines the default settings for the game itself. Attributes:
    - FixedTime: Boolean value defining if the game runs on a fixed time step or not. This means that Update is called on a specific interval instead of as-fast-as-it-can. [Default: true]
    - FrameTime: TimeSpan that defines the desired amount of time a single frame should last. The format of the time can be found [here](http://msdn.microsoft.com/en-us/library/3z48198e.aspx). [Default: “00:00:00.0166667”]
    - MouseVisible (Windows): Boolean value defining if the mouse cursor is visible on the screen.
    - Orientation (Windows Phone): A Microsoft.Xna.Framework.DisplayOrientation that defines the orientation of the game. As of XNA 4.0 the possible values are “Default”, “LandscapeLeft”, “LandscapeRight”, and “Portrait”. These can be separated by a pipe ‘|’ character to allow more than one orientation. [Default: Default]
    - WindowResizeable (Windows/Windows Phone): If the game window is resizeable. **Warning:** Games are not expected to be resized so appropriate measures must be taken if it occurs to prevent the game from “breaking” during execution. [Default: false]
    - Title (Windows/Windows Phone): The title that is displayed on the border of the window for the game. [Default: “”]

## General container format

The first line is a standard XML declaration:

<?xml version="1.0" encoding="utf-8"?>

The root element is “SGDE” with the attribute “Version” which specifies the version, which is 1.0 (as of SGDE 1.0):

<SGDE Version="1.0">

The following element is one of the specified element types listed above.

## Basic Types

//TODO