

Project File 2

High Level Overview

This is the second version of the file format for projects for Sprite Studio. This version builds on the previous version and contains the original version within itself, while adding a few new parts. For more information, see the Project File Format document. Its extension is `.ctsp2`.

Description

This file format contains all data from the original project file. A file name string and version integer is written at the very beginning of the file, then the file proceeds as if it is an original project file. At the end however, data for shapes and lines is located.

Layout

This is the `.ctsp2` file format:

| Entry Name | Entry Type | Entry Size (bytes) |
|------------------------|--------------------------------|--------------------|
| File Name | <code>String</code> | 6 |
| File Version | <code>int</code> | 4 |
| CTSP File | <code>.ctsp</code> | Varying |
| Ellipse Chunk List | <code>Ellipse Chunk[]</code> | Varying |
| Rectangle Chunk List | <code>Rectangle Chunk[]</code> | Varying |
| Linear Line Chunk List | <code>Linear Chunk[]</code> | Varying |
| Bezier Line Chunk List | <code>Bezier Chunk[]</code> | Varying |

Revision

This is the `.ctsp2` file's format:

| Entry Name | Entry Type | Entry Size (bytes) |
|--|--|--------------------|
| File Name | <code>String</code> | 6 |
| File Version | <code>int</code> | 4 |
| CTSP File | <code>.ctsp</code> | Varying |
| Number of Artboard Shape and Line Chunks | <code>int</code> | 4 |
| Artboard Shape And Line Chunks | <code>ArtboardShapeAndLineChunk[]</code> | Varying |

Artboard Shape and Line Chunk

This chunk contains all the relevant shape and line data for a particular artboard. These chunks are only generated for artboards that contain at least one line or shape. The layout for the chunk is:

| Entry Name | Entry Type | Entry Size (bytes) |
|---------------------|-------------------------------|--------------------------|
| Artboard Name | <code>String</code> | Varying |
| Number Ellipses | <code>int</code> | 4 |
| Number Rectangles | <code>int</code> | 4 |
| Number Linear Lines | <code>int</code> | 4 |
| Number Bezier Lines | <code>int</code> | 4 |
| Ellipse Chunks | <code>EllipseChunk[]</code> | 43 * Number Ellipses |
| Rectangle Chunks | <code>RectangleChunk[]</code> | 31 * Number Rectangles |
| Linear Chunks | <code>LinearChunk[]</code> | 25 * Number Linear Lines |
| Bezier Chunks | <code>BezierChunk[]</code> | Varying |

Ellipse and Rectangle Chunks share a Shape Chunk.

The Shape Chunk format is:

| Entry Name | Entry Type | Entry Size (bytes) |
|--------------|--------------------------|--------------------|
| Fill | <code>boolean</code> | 1 |
| Border Color | <code>Color Pixel</code> | 4 |

| | | |
|-------------------------|-------------|---|
| Fill Color | Color Pixel | 4 |
| Belongs to Visual Layer | boolean | 1 |
| Layer Index | int | 4 |
| Hide | boolean | 1 |
| X Offset from Owner | float | 4 |
| Y Offset from Owner | float | 4 |
| width | int | 4 |
| height | int | 4 |

The Ellipse Chunk format is:

| Entry Name | Entry Type | Entry Size (bytes) |
|------------|-------------|--------------------|
| Shape | Shape Chunk | 31 |
| X Radius | int | 4 |
| Y Radius | int | 4 |
| Iterations | float | 4 |

The Rectangle Chunk format is:

| Entry Name | Entry Type | Entry Size (bytes) |
|------------|-------------|--------------------|
| Shape | Shape Chunk | 31 |

Both Linear and Bezier lines share a common line chunk. The line chunk's format is:

| Entry Name | Entry Type | Entry Size (bytes) |
|-------------------------|-------------|--------------------|
| Belongs to Visual Layer | boolean | 1 |
| Layer Index | int | 4 |
| Endpoint 1 X | int | 4 |
| Endpoint 1 Y | int | 4 |
| Endpoint 2 X | int | 4 |
| Endpoint 2 Y | int | 4 |
| Color | Color Pixel | 4 |
| Thickness | int | 4 |

The Linear line chunk's format is:

| Entry Name | Entry Type | Entry Size (bytes) |
|------------|------------|--------------------|
| Line | Line Chunk | 25 |

The Bezier line chunk's format is:

| Entry Name | Entry Type | Entry Size (bytes) |
|-----------------------|------------|---------------------------|
| Line | Line Chunk | 25 |
| Iterations | float | 4 |
| Number Control Points | int | 4 |
| Control Points | Vector2f[] | Number Control Points * 8 |