Pekka Kana 2 Map file format

File Format

Data type	Bytes	Name	Description
`char[]`	5	Version	Version number, should be 1.3.
`char[]`	13	Tileset	Tileset image file name
`char[]`	13	Background	Background image file name
`char[]`	13	Music	Music file name
`char[]`	40	Map name	Name of the map (Not filename)
`char[]`	40	Author	Name of the map author
`char[]`	8	Level number	Number of the level, in the episode
`char[]`	8	Weather	Weather effect (List below)
`char[]`	8	Switch 1 time	Switch 1 time, hard coded to be 2000
`char[]`	8	Switch 2 time	Switch 2 time, hard coded to be 2000
`char[]`	8	Switch 3 time	Switch 3 time, hard coded to be 2000
`char[]`	8	Time	Time limit of the level
`char[]`	8	Extra	Scrolling type (List below)
`char[]`	8	Background	Not used
`char[]`	8	Player sprite	The player sprite, this is an index to the *prototypes* array
`char[]`	8	X	X position of the icon, on the level selection map
`char[]`	8	Y	Y position of the icon, on the level selection map
`char[]`	8	Icon	Icon on the level selection map
`int`	4	Prototypes	Amount of sprites, in the level
`char[]`	13 * prototypes	Sprite name	File name of sprite

Note: After this the fore- and background tiles as well as the sprites are stored, this is continued below.

Notes:

- Every `char[]` entry with the size of *8* bytes have to be converted into their respective data types. (Look at *Class* to find the respective data types for each variable.)
- Every `char[]` is of course null terminated.

Loading fore-/background tiles as well as sprites

All three are stored the same way in the file.

Data type	Bytes	Name	Description
`char[]`	8	StartX	The X position of the **first** tile/sprite
`char[]`	8	StartY	The Y position of the **first** tile/sprite
`char[]`	8	Width	The X position of the **last** tile/sprite
`char[]`	8	Height	The Y position of the **last** tile/sprite

Note: Replace *layer* with each respective layer. (Fore-/background, sprites)

Example:

Pseudocode

```
int MAP_WIDTH = 256;

for (int y = startY; y <= startY + height; y++) {
       for (int x = startX; x <= startX + width; x++)  {
              layer[MAP_WIDTH * x + y] = read a byte;
       }
}
```

Before saving a level, the level editor calculates the first and last positions of the tiles/sprites and only stores the used tiles. This saves space.

See method `RECT LaskeTallennusAlue(UCHAR *alue)` for more details.

Methods dealing with map data. (All found in file: „*PK2Map.cpp*“)

Method	Line	Description
`int LataaVersio13(char *filename)`	984	Load map file version 1.3
`RECT LaskeTallennusAlue(UCHAR *alue)`	362	Calculate used area
`int Tallenna(char *filename)`	444	Save map file

Note: Scrolling only affects the background image.

Weather	
Normal	0
Rain	1
Falling Leaves	2
Rain & Leaves	3
Snow	4

Scrolling	
Static/None	0
Vertical	1
Horizontal	2
Horizontal & Vertical	3

Class (File „*PK2Map.h*“, line: *64;* Translated directly from finnish)

C++ Class

```
class PK2Map {
                public:
                char version[5];
                char tileset_image[13];
                char background_image[13];
                char music_file[13];
                char name[40];
                char author[40];

                int level_number;
                int weather;
                int time;

                byte extra;
                byte background;

                DWORD switch1_time;
                DWORD switch2_time;
                DWORD switch3_time;

                int player_sprite;

                byte background_tiles[MAP_SIZE];
                byte foreground_tiles[MAP_SIZE];
                byte sprites[MAP_SIZE];
                char prototypes[MAP_MAX_PROTOTYPES][13];

                int x,y;
                int icon;
                };
```

Constants	Value	File	Line
MAP_SIZE	256 * 224	PK2Map.h	14
MAP_MAX_PROTOTYPES	100	PK2Map.h	20

Notes:

- Unimportant variables of the class are not represented here, to see the full class look at the class file. (See above: *Class*)
- Variables not used in game, but stored in file (with default values):
  - `byte background = 0;`
  - `DWORD switch1_time = 2000;`
  - `DWORD switch2_time = 2000;`
  - `DWORD switch3_time = 2000;`