The KsirK Skin Editor Handbook

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Contents

1 Introduction 6

2 Creating a KsirK skin 7
   2.1 Structure of folders and files ........................................... 7
      2.1.1 The Data folder ......................................................... 7
         2.1.1.1 The onu group ....................................................... 7
         2.1.1.2 The sprites description groups ................................. 8
         2.1.1.3 The countries description groups ............................... 9
         2.1.1.4 The nationalities description groups ......................... 9
         2.1.1.5 The continents description groups ............................ 9
         2.1.1.6 The goals description groups .................................... 10
      2.1.2 The Images folder ..................................................... 10
         2.1.2.1 The pool.svg file .................................................. 10
         2.1.2.2 The map-mask.png file .......................................... 12
         2.1.2.3 The buttons images .............................................. 13
      2.1.3 The Sounds folder .................................................... 14
      2.2 Using the KsirK Skin Editor ........................................... 14

3 Command Reference 15
   3.1 The main KsirK Skin Editor window ................................... 15
      3.1.1 The buttons ............................................................ 15

4 Developer’s Guide to KsirK Skin Editor 16

5 Questions and Answers 17

6 Credits and License 18

A Installation 19
   A.1 How to obtain KsirK Skin Editor ..................................... 19
   A.2 Compilation and Installation .......................................... 19
List of Tables

2.1 The onu group entries .................................................. 8
2.2 Sprite description group entries ..................................... 8
2.3 Country entries ............................................................. 9
2.4 Nationality entries ......................................................... 9
2.5 Continent entries ........................................................... 9
2.6 Goal entries .................................................................... 10
2.7 The elements of the pool .................................................. 12
2.8 The buttons of the GUI ..................................................... 14
Abstract

KsirK is a computerized version of a well known strategy game. It is fully skinable. This manual explains how to create new skins from scratch, using a file browser, a SVG image editor and KsirK Skin Editor.
Chapter 1

Introduction

KsirK is a computerized version of a well known strategy game. It is fully skinable. This manual explains how to create new skins from scratch, using a file browser, a SVG image editor and KsirK Skin Editor.

There is three main steps to create a new skin: creating the folders hierarchy; creating the graphics, all pooled inside a SVG file; and then placing sprites and naming things using KsirK Skin Editor.
Chapter 2

Creating a KsirK skin

KsirK is fully skinable. For who have graphic capabilities, creating a new skin is as simple as copying an existing one, editing or changing the graphics and updating the data in a .desktop configuration file, which is done using the KsirK Skin Editor. A last step is to edit the file describing what to install.

All examples (text and images) are taken from the default skin of KsirK

2.1 Structure of folders and files

- Data/: Data used by the program to handle the images of the skin.
  - CMakeLists.txt: Describes what to install.
  - onu.desktop: Main file for the description of the skin. See its description below.
- Images/: The images of the skin (map, sprites, etc.)
  - CMakeLists.txt: Describes what to install.
  - pool.svg: the map and all the sprites used in this skin.
  - map-mask.png: the image allowing the program to find which country the mouse is over during the game (see below).
  - *.png: the other images here are buttons images.
- Sounds/: sound files for the skin.

2.1.1 The Data folder

This folder contains only one file, world.desktop. This file is a description of the content of the skin. It is used to describe the organization of the world and how to display it. You don’t have to fill it manually as it will be handled by the KsirK Skin Editor. But, for the sake of completeness, we will now describe its structure.

An onu group contains a number of country entries, a number of nationality entries and lastly a number of continent entries. Then various groups contain the description of the different sprites, the description of the different countries, continents, nationalities and goals.

The following sections describe the content of each group.

2.1.1.1 The onu group
## 2.1.1.2 The sprites description groups

Each type of sprite (flag, infantry, cavalry, cannon, firing cannon and exploding cannon) is defined by a group. Only some sprites have a width entry. This entry is used for relative positioning during animations: the cannons, firing or exploding should not “move” around the country’s flag during fight.
2.1.1.3 The countries description groups

Each country listed in the onu group, countries entry has its own group whose label is the country name. The table below lists the entries of these groups.

<table>
<thead>
<tr>
<th>Entry name</th>
<th>Signification</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>The integer unique identification number of the country, must start at zero (0)</td>
</tr>
<tr>
<td>name</td>
<td>The displayed name of the country</td>
</tr>
<tr>
<td>&lt;sprite&gt;-point</td>
<td>Each type of sprite (flag, infantry, etc.) in the country is displayed at a certain position defined by this entry made of two integers separated by a comma</td>
</tr>
<tr>
<td>neighbours</td>
<td>The list of the ids of the neighbors of the current country</td>
</tr>
</tbody>
</table>

Table 2.3: Country entries

2.1.1.4 The nationalities description groups

Each nationality listed in the onu group, nationalities entry has its own group whose label is the nationality name. The table below lists the entries of these groups.

<table>
<thead>
<tr>
<th>Entry name</th>
<th>Signification</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>The name of the nationality (e.g. Japan)</td>
</tr>
<tr>
<td>leader</td>
<td>The name that will be proposed to the player choosing this nationality</td>
</tr>
<tr>
<td>flag</td>
<td>The name of the country’s flag sprite element in the onu SVG file</td>
</tr>
</tbody>
</table>

Table 2.4: Nationality entries

2.1.1.5 The continents description groups

Each continent listed in the onu group, continents entry has its own group whose label is the continent name. The table below lists the entries of these groups.

<table>
<thead>
<tr>
<th>Entry name</th>
<th>Signification</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>The name of the continent(e.g. Africa)</td>
</tr>
<tr>
<td>id</td>
<td>The integer unique identification number of the continent</td>
</tr>
<tr>
<td>bonus</td>
<td>The number of armies obtained at the end of the turn by the player owning all the countries of the continent</td>
</tr>
<tr>
<td>continent-countries</td>
<td>The list of the ids of the countries inside the current continent</td>
</tr>
</tbody>
</table>

Table 2.5: Continent entries
2.1.1.6 The goals description groups

Each goal listed in the onu group, goals entry has its own group whose label is the goal name. The table below lists the entries of these groups.

<table>
<thead>
<tr>
<th>Entry name</th>
<th>Signification</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>The type of goal. Can be continents, countries or player</td>
</tr>
<tr>
<td>nbArmiesByCountry</td>
<td>set the minimal number of armies the player will have to put on each country</td>
</tr>
<tr>
<td>nbCountries</td>
<td>set the number of countries the player must possess</td>
</tr>
<tr>
<td>nbCountriesFallback</td>
<td>For a player goal type, if the target player is killed by another one, this sets the number of countries the player will have to conquer instead</td>
</tr>
<tr>
<td>desc</td>
<td>A full text description of the goal with appropriate placeholders (needs more doc here)</td>
</tr>
<tr>
<td>continents</td>
<td>The list of continents ids the player will have to conquer</td>
</tr>
</tbody>
</table>

Table 2.6: Goal entries

2.1.2 The Images folder

This folder contains the buttons specific to KsirK and the pool SVG file that contains the map and all sprites.

2.1.2.1 The pool.svg file

This SVG file contains the map and all the sprites of the game. Each element is named such that the game can select and render separately each of them.

In the default skin, the sprites are flags, infantry, cavalry and cannon. Infantry represents one army, five for cavalry and ten for cannons. Cannons are also used to display fighting armies. That’s why there is three kinds of cannon sprites: normal static or moving cannon, firing one and exploding one.

Each sprite image is the concatenation of the various views of the object and for each view, its frames. Views are organized vertically and frames horizontally. Where to cut the image in individual frames is found by dividing the height of the image by the number of views and the width by the number of frames. These data are found in the onu.desktop file.
For armies sprites, there is three different views, from top to bottom:

- looking right
- looking left and
- facer

For flags, there is only one view. All sprites backgrounds should be set to transparent.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Sample Image</th>
<th>Signification</th>
</tr>
</thead>
<tbody>
<tr>
<td>map</td>
<td><img src="map.png" alt="Map Image" /></td>
<td>Map of the skins’s world. Countries can have arbitrary shapes, but should be grouped in eye-recognizable continents, by location only or by color</td>
</tr>
<tr>
<td>italy</td>
<td><img src="italy.png" alt="Flag Image" /></td>
<td>The flag of the Italy nation. There is one such entry for each nation</td>
</tr>
<tr>
<td>infantry</td>
<td><img src="infantry.png" alt="Icon Image" /></td>
<td>Icon representing one army</td>
</tr>
<tr>
<td>cavalry</td>
<td><img src="cavalry.png" alt="Icon Image" /></td>
<td>Icon representing five armies</td>
</tr>
<tr>
<td>cannon</td>
<td><img src="cannon.png" alt="Icon Image" /></td>
<td>Icon representing ten armies</td>
</tr>
</tbody>
</table>
### Table 2.7: The elements of the pool

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>firing</td>
<td>Icon representing armies during a fight</td>
</tr>
<tr>
<td>exploding</td>
<td>Icon representing armies when losing a fight</td>
</tr>
<tr>
<td>Alaska</td>
<td>The shape of the Alaska country. This is used to highlight the country. There is one such shape for each country. Its color is not used. As such, the color is free.</td>
</tr>
<tr>
<td>reddices</td>
<td>The red dices used to show battles results</td>
</tr>
<tr>
<td>bluedices</td>
<td>The blue dices used to show battles results</td>
</tr>
<tr>
<td>mark1</td>
<td>This mark is added to fighting sprites to show the number of armies they represent, here 1. There is also a mark2 and a mark3 elements.</td>
</tr>
</tbody>
</table>

#### 2.1.2.2 The map-mask.png file

This is a png file representing also the map of the skin's world, but with coded colors that allows one to identify uniquely each country. Countries must have at least the same shapes as the corresponding countries on the map.png file so that users can click anywhere in a viewable country and select the good one. Countries, like little islands as Indonesia in the default map can be greater than the equivalent in the map.png file to facilitate the selection of the country.
The blue component (in RGB model) of a country’s color identifies the country: index 0 is country 0 in the onu.xml file, index 1 is country 1, etc. White (0xFFFFFF in RGB) identifies the absence of country (sees or, why not, no man’s lands).

### 2.1.2.3 The buttons images

The filenames are hard-coded in the code, so they should not be modified. The table below shows all the buttons that should be provided.

<table>
<thead>
<tr>
<th>Image</th>
<th>Filename</th>
<th>Signification</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="newNetGame" /></td>
<td>newNetGame.png</td>
<td>Tries to join a network game</td>
</tr>
<tr>
<td><img src="image" alt="recycling" /></td>
<td>recycling.png</td>
<td>After all players have put their armies, it is possible to modify the distributions (named recycling). This button asks to do such a redistribution</td>
</tr>
<tr>
<td><img src="image" alt="recyclingFinished" /></td>
<td>recyclingFinished.png</td>
<td>Chooses not to redistribute. All clients windows must have this button clicked to really end the distribution</td>
</tr>
<tr>
<td><img src="image" alt="nextPlayer" /></td>
<td>nextPlayer.png</td>
<td>Ends the current player’s turn and switch to the next one or to the next turn if the current player was the last one</td>
</tr>
<tr>
<td><img src="image" alt="attackOne" /></td>
<td>attackOne.png</td>
<td>Chooses to start an attack with one army</td>
</tr>
<tr>
<td><img src="image" alt="attackTwo" /></td>
<td>attackTwo.png</td>
<td>Chooses to start an attack with two armies</td>
</tr>
<tr>
<td><img src="image" alt="attackThree" /></td>
<td>attackThree.png</td>
<td>Chooses to start an attack with three armies</td>
</tr>
</tbody>
</table>
The KsirK Skin Editor Handbook

| ![defendOne.png]  | defendOne.png | Chooses to defend an attacked country with one army |
| ![defendTwo.png]  | defendTwo.png | Chooses to defend an attacked country with two armies |
| ![moveArmies.png] | moveArmies.png | Chooses to start the moving of armies between two countries (last action in the turn) |

Table 2.8: The buttons of the GUI

2.1.3 The Sounds folder

This folder contains three sound files:

- roll.wav played when armies are moving
- cannon.wav played when firing and
- crash.wav played when a cannon explodes

2.2 Using the KsirK Skin Editor

After creating the graphics in the right folder and SVG file, you just have to create countries, players, etc. and associate them with the right SVG element in the pool. This can be done with the KsirK Skin Editor. Note that each part of this application is auto-described by tooltips and contextual help usually reachable through the Ctrl+F1 shortcut.
Chapter 3

Command Reference

3.1 The main KsirK Skin Editor window

3.1.1 The buttons

Load
Causes the program to load an existing skin.

Save
Saves the currently edited skin
Chapter 4

Developer’s Guide to KsirK Skin Editor

Please refer to http://api.kde.org/ for the documentation of the API.
Chapter 5

Questions and Answers

This document may have been updated since your installation. You can find the latest version at https://docs.kde.org/.
Chapter 6

Credits and License

KsirK Skin Editor
Program copyright 2009 Gael de Chalendar kleag@free.fr
Documentation copyright 2009 Gael de Chalendar kleag@free.fr
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Appendix A

Installation

A.1 How to obtain KsirK Skin Editor

KsirK Skin Editor is part of the KDE project http://www.kde.org/. KsirK Skin Editor can be found on the download site of the KDE project.

A.2 Compilation and Installation

For information on how to compile and install KDE applications visit the KDE Community wiki. Since KDE uses cmake you should have no trouble compiling it. Should you run into problems please report them to the KDE mailing lists.