

# RESOURCE PROTECTOR

Resource Protector  
v. 0.1  
by Halve Studio

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Thanks for Pieter (for solving few problems with DLL)

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## **Introduction**

Resource Protector is a suite for game programmers or makers to protect their external resources from resource stealers or from changing their resources by user to another ones. The suite consists in:

- encoder – application which encodes resources;
- decoder – DLL which decodes file.

Hope you like it ;) !

## **Usage**

Usage of Resource Protector suite is very easy. There are two steps in which you are encoding resources and using it.

### **First step: encoding**

Resource encoding is the easiest step. There are an application which encodes file and generates hash. You can find it in folder „Encoder”. Just run „resprotect.exe” and enjoy the encoding process.

At first you have to choose file which will be encoded. To do this you have to click „Choose file” and choose a resource to encode (simple, isn't it?). Next, you have to click „Encode file”. It will cause showing dialog which will ask you, where you want to save encoded resource and what name will it have. When you choose location, encoder will encode file and show the hash. Click „Copy to clipboard” and save it in some txt file or whatever you want. It's very important to have it, because without hash, file won't be decoded. After all, you can quit the application.

## Second step: using DLL

This step will be quite harder than previous, but I think, that you are up to do it ;) . So, protect.dll have only one function which you can use. It looks like that:

```
function decode(adres:PChar; hash:PChar):PChar; cdecl;
```

Under variable „adres” put path to the file (full path, with disk and directories!), and under „hash” put the hash which you get from application. DLL will return path to decoded file.

But, that what you have seen above is the raw function from DLL code. You can't use it in this form in your game. If you want to use it in Game Maker, you should create a script (for example, call it „decode” - I will use that name in rest of that step). Into the script paste:

```
dec=external_define('protect.dll','decode',dll_cdecl,ty_string,2,ty_string,ty_string);  
return (external_call(dec,argument0,argument1));  
external_free('protect.dll');
```

Then, if you want to use it, for example, while you want to add some external background sound called „midi\_file.aaa” which have hash „97:112:117:25:87:69”, write:

```
midi=decode(working_directory+'\midi_file.aaa','97:112:117:25:87:69');  
music=sound_add(midi,1,1);  
file_delete(midi);  
sound_play(music);
```

I added line „file\_delete(midi)” to delete file after adding it to memory – it's an additional protection.

You can see how to use DLL in attached example.

If you aren't using Game Maker, but other tools, you should find how to use DLLs in them and use it like I have written here.

### **Tips**

- Always give the encoded file some random extension. Never give the same which it have before.

It's all for this while. I hope, that you will enjoy Resource Protector suite. If you want to read some more technical things, go to the next page.

*Marmot*  
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## **TODO**

- add more file types support
- detecting file type by file header, not by extension
- documentation in other languages
- examples of use in other game making tools and in programming languages.

You can increase that list by writing me some ideas. Just write your idea in topic about Resource Protector and I will consider adding it to application or DLL.

## **CHANGELOG**

v.0.1

- encoder has been made
- decoder has been made
- support for JPEG, PNG, WAVE, MIDI, AVI, GIF files
- English and Polish documentation

If you have found some errors in this documentation, write about it in topic about Resource Protector.

Thanks in advance for help in doing Resource Protector better.

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