



Luxand Development
<http://www.luxand.com>

FaceMorpher Web Edition 1.5

Automatic Face Morphing Toolkit

IIS Installation Guide

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Preface

Definitions

FaceMorpher Web Edition is referred as FaceMorpher throughout the document.

Introduction

This document describes how to set up FaceMorpher to operate with Internet Information Services (IIS) Web server with the PHP extension.

The IIS Web server sets strict permissions to programs executed via the PHP extension. Since FaceMorpher operates with input and output files and needs access to the registry and its internal data files, the default permissions have to be changed in order to run FaceMorpher. Moreover, certain IIS permissions has to be altered to enable executing the command processor `cmd.exe` to run FaceMorpher using the `shell_exec()` function.

Configuring IIS to Enable `shell_exec()` Function

Default IIS permissions often disallow IIS to execute the command processor `cmd.exe`. Therefore, the `shell_exec()` function can return an error. To allow IIS running `cmd.exe`, the following command must be executed from the command prompt:

```
> cacls %COMSPEC% /E /G %COMPUTERNAME%\IUSR_%COMPUTERNAME%:R
```

The `%COMPUTERNAME%\IUSR_%COMPUTERNAME%` string specifies the name of the default IIS user. Usually, IIS is configured to run as the default user; however, it is essential to determine the correct user name in case if IIS runs as a different user.

You can check if permissions were configured properly by running the following command:

```
> cacls %COMSPEC%
```

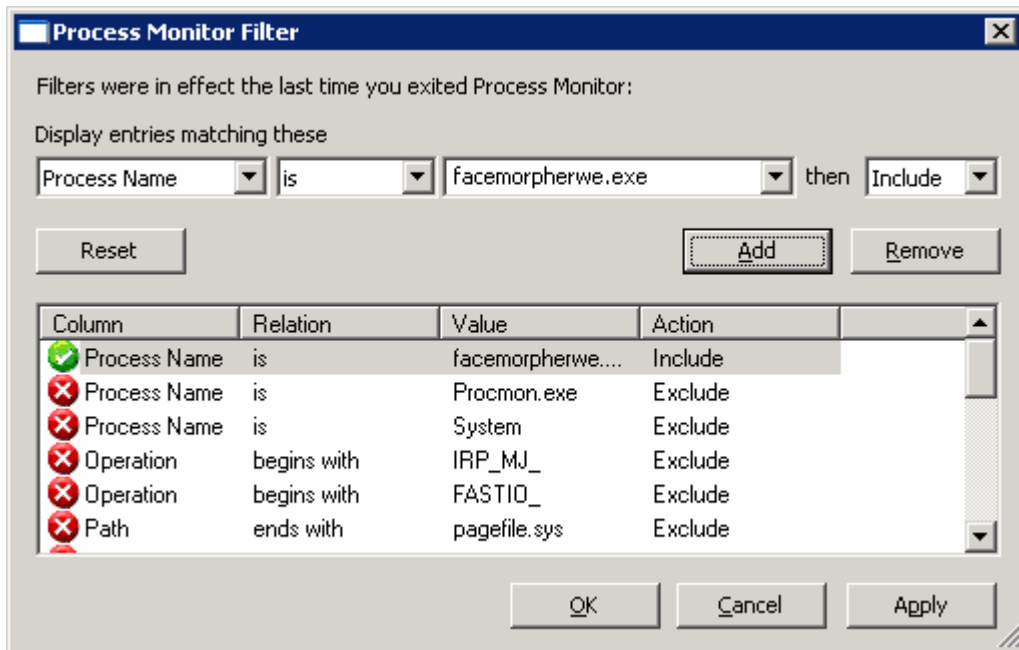
The command should display the current IIS user.

Determining User Name of FaceMorpher

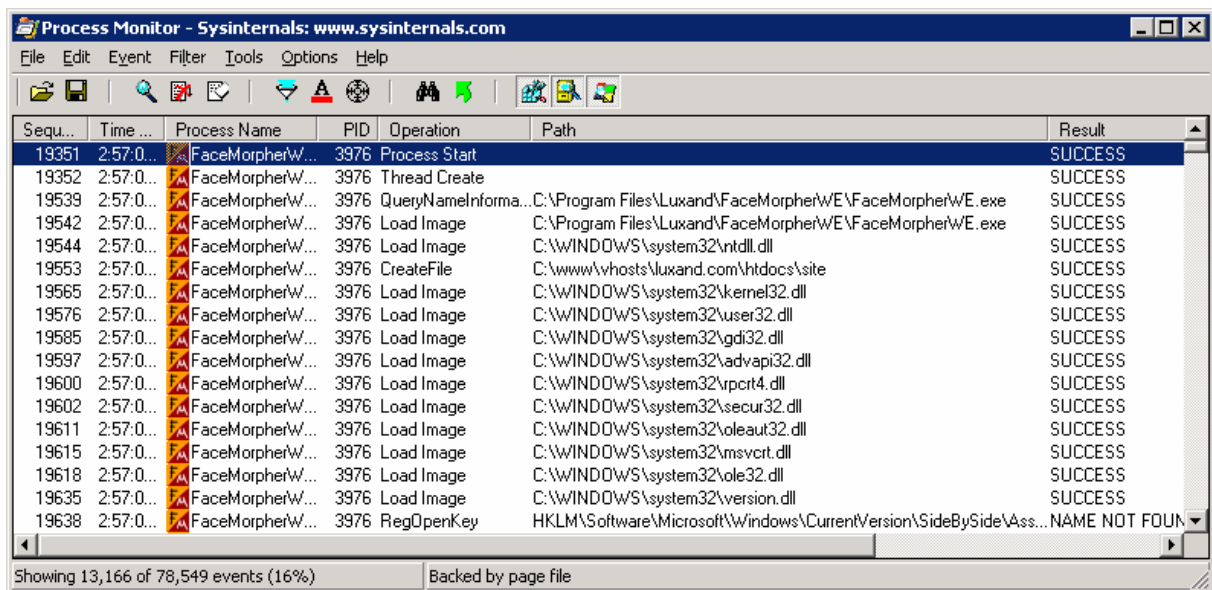
FaceMorpher, when executed via the `shell_exec()` function, runs as a specific user. Determining the exact user name is essential to allow the user accessing the registry and data files. Typically, the user name is either “NETWORK SERVICE” or “SYSTEM”, but it can vary from system to system. The most straightforward way to determine the username is by using SysInternals Process Monitor available from Microsoft:

<http://technet.microsoft.com/en-us/sysinternals/bb896645.aspx>

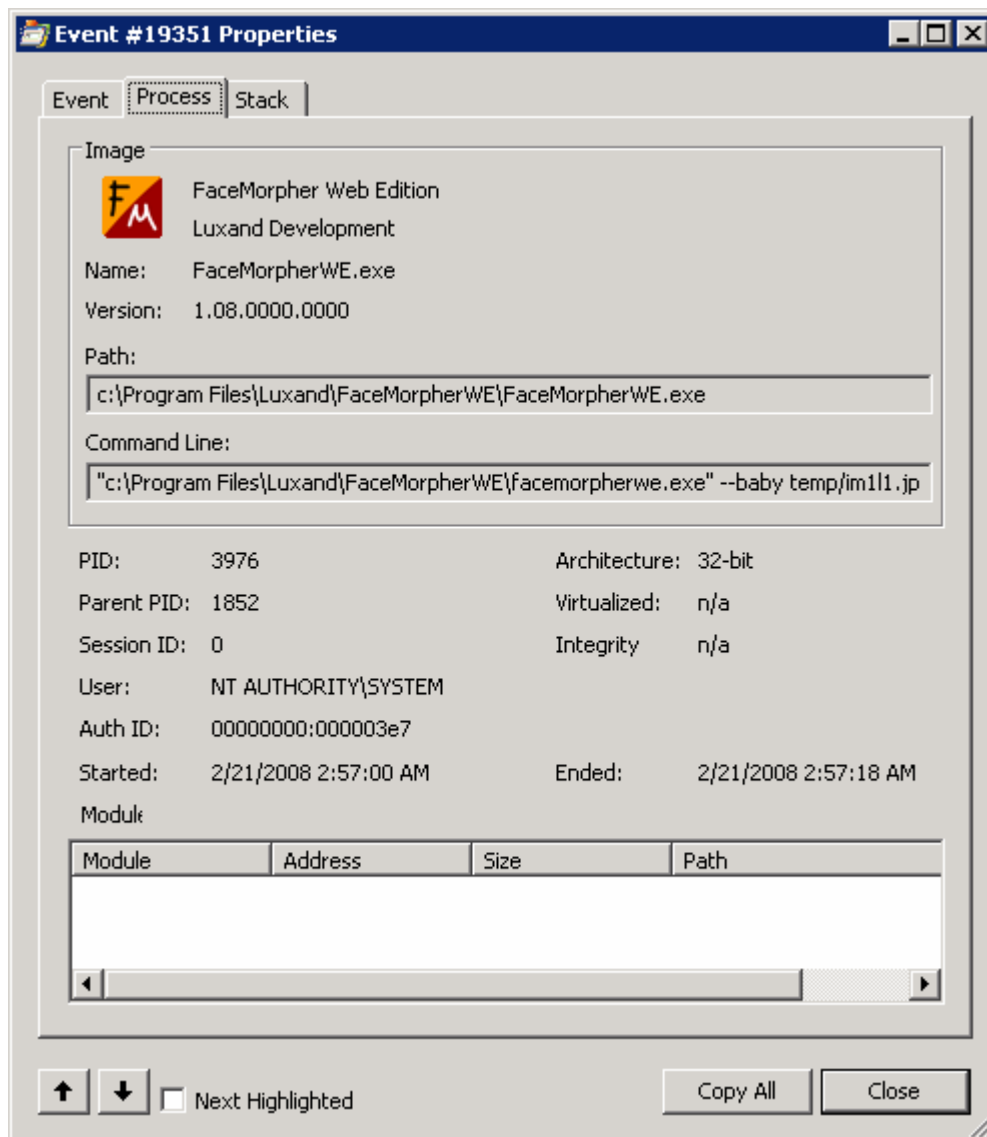
After you install and run SysInternals Process Monitor, it is important to set filters properly in order to only display the events that belong to the FaceMorpher process. To set a filter, select “Process Name”, “is”, “facemorpherwe.exe”, “Include” in the configuration dialog displayed after you start Process Monitor, and click the “Add” button. After that, click “OK” and start the monitoring process.



When the monitoring is started, execute FaceMorpher via a PHP script by opening the address of the script in your Web browser. You will receive a long list of events that belong to the “facemorpherwe.exe” process.



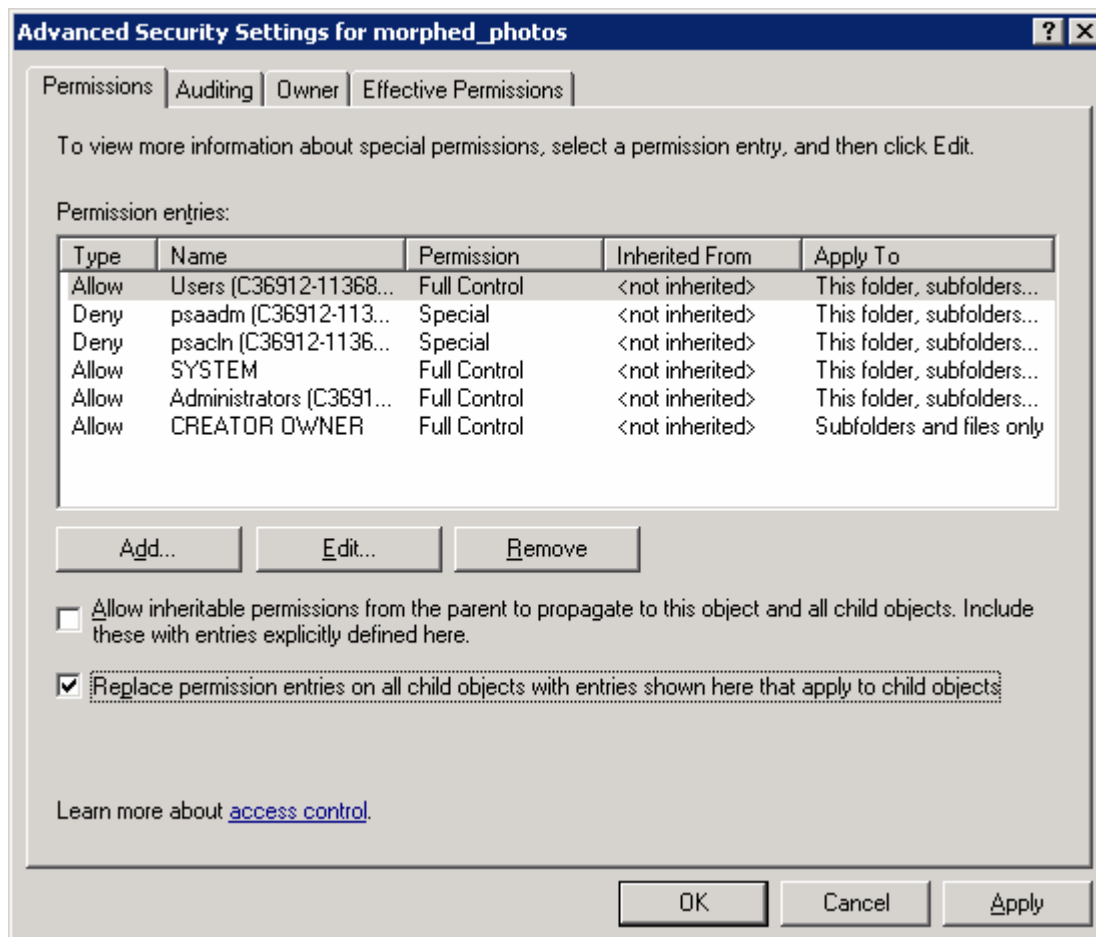
Double-click on any line in this list, and select the “Process” tab:



In this particular case, FaceMorpher is run as the “SYSTEM” user. The line “User: ...” displays “NT AUTHORITY\SYSTEM”, so it is clear that FaceMorpher runs under the “SYSTEM” user. This user name is referred as “FaceMorpher user” later throughout this document.

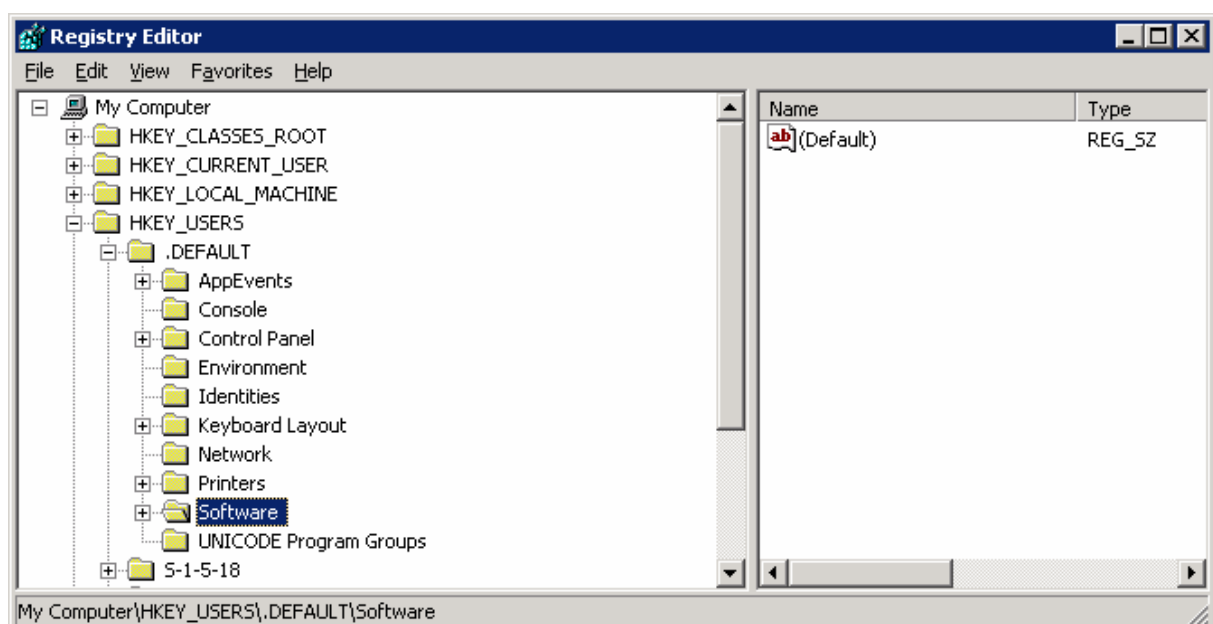
Configuring Permissions to Access Input and Output Files

After the username is determined, it is easy to set proper permissions for FaceMorpher. Right-click on the directory that FaceMorpher needs to have access to (in the sample PHP application provided with FaceMorpher Web Edition these are “uploaded_photos” and “morphed_photos” directories). Select “Properties”, click the “Security” tab, and click “Add” to add the FaceMorpher user to the permission list, then click on this user in the list and check if it has full control over the directory. If the check marks in the “Permissions for..” list are displayed in gray, click the “Advanced” button, clear the “Allow inheritable permissions...” checkbox, select “Copy” in the displayed dialog window, and select the checkbox for the “Replace permission entries...” option; after that, click OK. Click “Yes” if the dialog asks you if you wish to continue.



FaceMorpher Activation

To activate FaceMorpher, execute facemorpherwe.exe with the `--activate` parameter via the PHP script, as FaceMorpher stores its licensing information in the registry branch of the current user. To allow FaceMorpher to access the registry, run `regedit.exe` (Start -> Run -> `regedit`), and add permissions for the FaceMorpher user to access `HKEY_USERS`, `HKEY_USERS\.Default`, and `HKEY_USERS\.Default\Software` registry branches.



To set permissions, right-click on the branch name, select “Permissions”, click “Add” to add the FaceMorpher user, and check if the user has full control over this registry branch.

After the registry permissions are set, execute the following lines from your PHP script. In this script, FaceMorpher tries to read the key from “c:\facemorpherwe.key” file, so change this string to reflect the path where your key is actually located. Make sure to verify that the FaceMorpher user has access to the directory with the key and the key file.

These lines should be executed only once.

```
define(FaceMorpherPath, 'c:\Program
Files\Luxand\FaceMorpherWE\facemorpherwe.exe');
$out = shell_exec("cmd /c " . FaceMorpherPath . " --activate
c:\facemorpherwe.key");
echo "$out<br>\n";
$out = shell_exec("cmd /c " . FaceMorpherPath . " --license");
echo "$out<br>\n";
```

In case of successful activation, the script will display the licensing information.