EDHM XML Profile Guide

v1.0 (23 March 2021)

Introduction

The **EDHM v1.5 Manual** covers the basics of loading profiles from the **DemoProfiles** folder and is a good introduction to working with profiles. I recommend reading that section of the Manual (plus the discussion of Keybinds) before attempting any procedures here.

This guide will extend that knowledge and teach you how to:

- Download and install new profiles / themes, and set them as a default profile, or a profile you activate with a Hotkey
- Create a new profile based on an existing XML colour matrix
- Fine-tune your portrait images
- Create a new XML colour matrix

These topics can be a little complicated, and I expect to update this guide regularly, so please occasionally check the current version on the EDHM post on the Elite forums:

https://forums.frontier.co.uk/threads/elite-dangerous-hud-mod-edhm.557033/

Please note: This is an early version of the document, and I expect it will undergo many revisions. If something is confusing or a process omitted then please contact me and I will revise the text, thank you.

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1. Downloading and installing profiles

In the EDHM post on the Elite forums, there is a library of profiles you can download and install.

*Please note, if you're reading this shortly after the v1.5 release (22 March 2021) the library will be empty, but I will add new items soon.

Each profile in the library has a few images, plus a zip file to download.

But first, I'd like you to locate the folder where we will unzip the files you download.

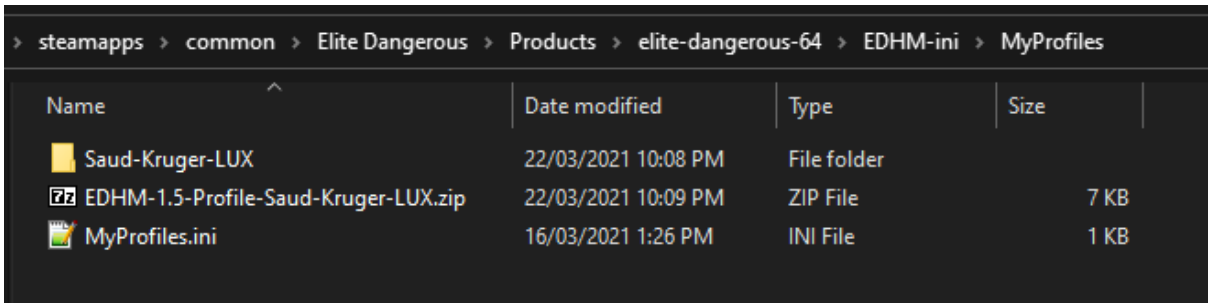
1. Open **Windows Explorer**, go to the **elite-dangerous-64** folder where you installed EDHM, then open the **EDHM-ini** folder.

2. Inside the **EDHM-ini** folder you will see the **MyProfiles** folder.

3. Open the **MyProfiles** folder and you'll see a single file, **MyProfiles.ini**, which stores all your Hotkey profiles.

4. You will unzip new profiles into the **MyProfiles** folder, so go ahead and do that now.

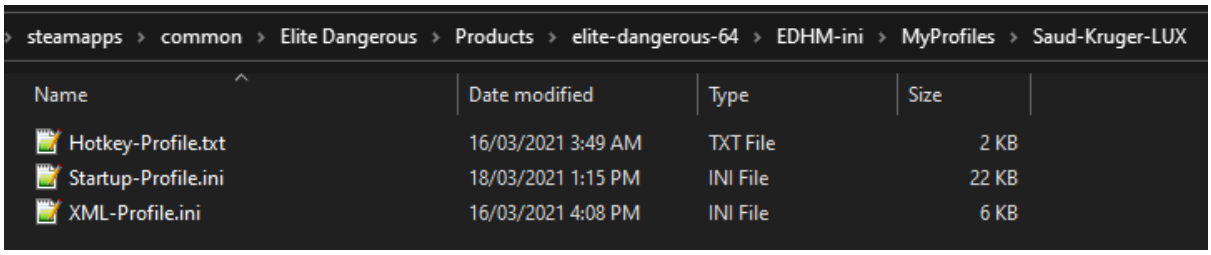
After you unzip the file, your **MyProfiles** folder will look similar to this image:



In this example, I have unzipped the **Saud-Kruger-LUX** profile into the **MyProfiles** folder.

Open the named folder containing the profile you just unzipped.

Inside you will see three files:



You will use two of these files if you wish to install the new profile as your default profile (when Elite loads):

- Startup-Profile.ini
- XML-Profile.ini

And you'll use the remaining file if you wish to install the profile as a Hotkey profile:

- Hotkey-Profile.txt

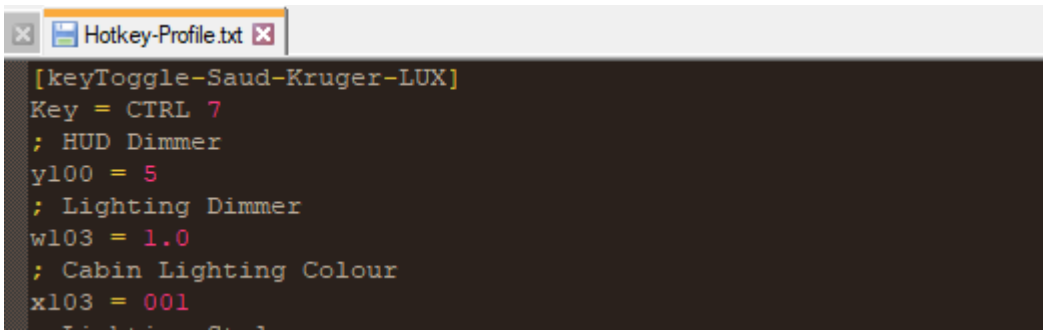
Let's first install this profile as a Hotkey profile so you can see what it looks like.

A useful editing tool: NotePad++

I highly recommend using a good text editor – the regular Windows notepad is pretty bad for editing. Instead, try the free Notepad ++ (https://notepad-plus-plus.org/downloads/)

If you use Notepad++ then I also recommend the Obsidian or Bespin themes. Select the Settings menu option: Style Configurator, then Select Theme: Obsidian (or Bespin).

Now when you open an .ini file you'll have colour highlights on the code. For example,



But you don't have to use Notepad++, you can use regular old Notepad.

Installing a Hotkey Profile

A Hotkey profile is a profile that loads when you press a key on the keyboard. You can install as many Hotkey profiles as you like, but because this is a new feature of EDHM I'm unsure if installing many profiles has an impact on FPS, or zero impact. I will update this Guide as more information becomes available.

Please exit Elite and follow this procedure to install a new Hotkey profile:

1. In the folder you recently created by unzipping the file (the Saud-Kruger-LUX folder in the example above), open the file **Hotkey-Profile.txt** in a text editor.

2. In **Windows Explorer**, go up one folder level to the folder **MyProfiles**, and open the file **MyProfiles.ini** in a text editor.

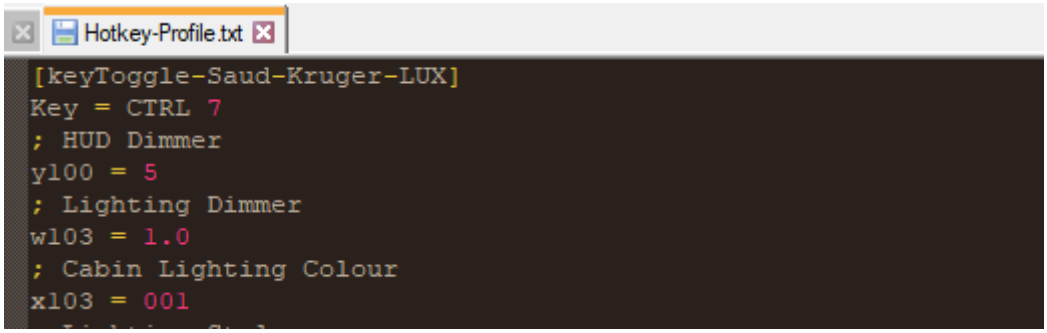
3. You are now going to copy the entire contents of **Hotkey-Profile.txt** into the bottom of **MyProfiles.ini**

   While in **Hotkey-Profile.txt**, press CTRL A (select all), press CTRL C (copy)

   Open **MyProfiles.ini**, scroll down the bottom of the file, then press CTRL V (paste)

4. You have now pasted the Hotkey profile into **MyProfiles.ini**. There's just one more step: Selecting a Hotkey (keybind) to activate the profile.

5. Still inside **MyProfiles.ini**, slowly scroll up until you see the title of the profile you just pasted into **MyProfiles.ini**. For example:



   Here we see the title is **[keyToggle-Saud-Kruger-LUX]**

   and under the title is the designated Hotkey,

   Key = CTRL 7

6. Edit the value of

   Key =

   and choose the key you would like to activate the Hotkey profile. In the **Appendix** of this document is a list of all valid key names.

7. After you have entered your preferred keybind, save the file.

8. Now the Hotkey profile is installed.

   Start Elite, press the Hotkey, and the profile will load.

Please note: You will also need to create a Hotkey profile for your default profile so you can switch back from your new profile.

If you downloaded your default profile, or are using one of the Demo profiles, then a Hotkey profile (**Hotkey-Profile.txt**) already exists in your **MyProfiles** folder or **DemoProfiles** folder, respectively.

For all other scenarios, please see the section:

6. Creating a Hotkey XML profile for your panels and HUD

However, I recommend reading through this section first to understand the principles.

Installing the new profile as a default profile

As previously mentioned, there are two other files you extracted from the zip archive:

- Startup-Profile.ini
- XML-Profile.ini

Startup-Profile.ini contains the settings for the colours on the front HUD, plus other miscellaneous options, such as Night Vision colours. I recommend having a look through **Startup-Profile.ini** to see what options are contained in this file.

XML-Profile.ini contains an XML matrix (a matrix of colour settings) that determines the colour of your ship and station panels, but can also be used to colour elements on the HUD.

We will explore these files in another section, but for now our goal is to install the new profile as our default theme.

When you first installed EDHM it will load with the 'Black Market' theme (purple, blue and white). The Black Market theme is stored in the **DemoProfiles** folder (in the **EDHM-ini** folder), so you can always restore the Black Market profile in the future.

But it's good practice to back-up your current profile, so we'll do that first.

To back-up your current profile:

1. In **Windows Explorer**, open the **EDHM-ini** folder.

2. Select the files **Startup-Profile.ini** and **XML-Profile.ini**
   (Startup-Profile.ini is the default HUD, **XML-Profile.ini** is the default panels)

3. Press CTRL X (cut), open the folder **Ini-Backups**, and press CTRL V (paste)

   You have now backed up your default profile.

To install the new profile as the default profile:

1. Go back into the folder **MyProfiles**, and then into the named folder containing the new profile

2. Select the files **Startup-Profile.ini** and **XML-Profile.ini** and press CTRL C (copy)

3. Go back to the **EDHM-ini** folder and press CTRL V (paste)

The new profile is now installed as your default profile. Congratulations!

It's really not that difficult, is it? Well, we're just getting warmed up 😊

Tweaking the Default Profile

When you install the new profile as your default profile, you may find some of your preferred settings need to be restored, such as 'removing dirty streaks on the canopy window', or you may prefer some elements are different colours.

Editing the **Startup-Profile.ini** is covered in the **EDHM v1.5 Manual**, so please refer to that document for more detail.

This is also why it's important to back-up your previous default profile, so you can look through your old **Startup-Profile.ini** to see if there are any settings you wish to transfer to the new default profile.

Tweaking the Hotkey Profiles

Tweaking a Hotkey profile in **MyProfiles.ini** is a little more difficult as each setting doesn't have a full explanation, as per the **Startup-Profile.ini**.

Nevertheless, I hope it's logical to find the setting you wish to change, refer to the list of options in **Startup-Profile.ini** or the **EDHM-v1.5-Catalogue.pdf**, and alter the values to your preferences.

2. Creating a new profile based on an XML matrix

The old way of changing your HUD colours via editing the colour matrix in *GraphicsConfiguration.xml* has produced many excellent colour matrices over the years.

The hallmark of a good colour matrix is its ability to not only look cool, but maintain the integrity of your portraits.

You might find XML colour matrices mentioned on the Elite forums, or reddit, but the best repository is the NO2O post on the Elite forums:

https://forums.frontier.co.uk/threads/no2o-the-definitive-list-of-1-7-2-2-compatible-hud-colour-color-configs-please-add-yours.259311/

Once you've found a colour matrix that you like (try to choose one that mostly preserves the portraits), we will add that matrix into an online profile tool that will create the necessary code to enter into your ini files.

I'll work through an example with you.

1. Choose your colour matrix

For this example, I will choose the Lemon Chiffon matrix (first matrix at the top of the NO2O post)

The Lemon Chiffon matrix is:

<MatrixRed> 0.39, 0.47, 0.21 </MatrixRed>

<MatrixGreen> 0.08, 0.14, 1.00 </MatrixGreen>

<MatrixBlue> 1.00, -0.03, -1.00 </MatrixBlue>

2. Enter the colour matrix values into the **EDHM XML Profile Tool**

We need to convert the colour matrix into a format EDHM can understand.

Please open the **EDHM XML Profile Tool** via this link

EDHM XML Profile Tool - Google Sheets

3. When you first open this link you'll see a lot of information, but don't be overwhelmed, it will all make sense soon.

The first step is to make the spreadsheet your own, as it will be locked from editing.

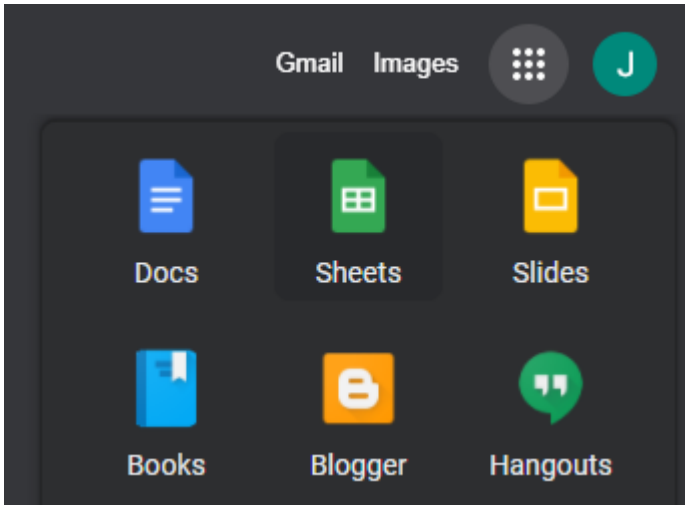
* Note: I'm fairly certain you'll need a Google account to use this spreadsheet.

4. Click the **File menu**, then click '***Make a Copy***'

This will copy the spreadsheet into your account.

When you access this spreadsheet in the future, just load up the spreadsheet from your account, don't '*Make a Copy*' every time.

You can access your Google Sheets by clicking on the Apps button next to your name (top right of your browser):



5. Now that you have your own copy of the **EDHM XML Profile Tool** we can edit the spreadsheet and insert the colour matrix values.

* Note: The **XML Profile Tool** may be updated from time to time, so please occasionally visit the Elite forums to check the current version.

At the time of writing this manual, the current version is: 16 March 2021

6. On the opening page of the spreadsheet, look down towards the bottom of the page where you will see the **TAB: 'EDHM XML Matrix'**

Click that TAB to open the XML page.

7. There are instructions on the right-hand side of this page, please read the instructions.

8. As the instructions indicate, the first step is to enter your colour matrix values into the green rectangle at the top left of the screen.

Enter your matrix values into the green rectangle, use the same layout as the original matrix (i.e., top left goes in the top left position, top middle goes into the top middle position, etc)

So my Lemon Chiffon matrix looks like this:

	Enter your XML Matrix here:		
<MatrixRed>	0.39	0.47	0.21
<MatrixGreen>	0.08	0.14	1
<MatrixBlue>	1	-0.03	-1

Double-check the values you entered are correct as they're very important. Don't forget to include the minus sign (-) for negative numbers.

9. As you enter the values, you'll notice the values in the orange matrix below keep changing. The orange matrix is called the 'Inverse Matrix' and will be responsible for transforming our portraits back to the default state (or as close as possible).

10. The information we are creating in this spreadsheet can be used in two ways:

To set a default XML for your ship/station panels (and HUD elements of your choosing) when Elite loads, or as part of a Hotkey profile that loads when you press the relevant Hotkey.

We will examine both scenarios, but first, let's set a default XML profile for your panels.

3. Creating a default XML profile for your panels

The file that stores the information to apply a colour theme to your panels is **XML-Profile.ini**, located in your **EDHM-ini** folder. In contrast, **Startup-Profile.ini** contains information about your default HUD.

Firstly, back-up your current **XML-Profile.ini** by moving it into the folder **Ini-Backups** (in the **EDHM-ini** folder).

Next, in **Windows Explorer** open the folder **New-Profile-Template** and copy the file **XML-Profile.ini** into the folder **EDHM-ini**.

So now we have backed up your old **XML-Profile.ini** and created a new **XML-Profile.ini** in the **EDHM-ini** folder.

Open the new **XML-Profile.ini** in a text editor and look inside.

Your will see four options (that we will cover in a later section):

- Chat Panel Portrait Model
- Brightness of portraits
- Overall brightness of ship panels
- Brightness of highlights on panels

And then under these options are 27 colour matrix values in a vertical format. EDHM needs the values in this format.

The **EDHM XML Profile Tool** converts your colour matrix into this vertical matrix format, so you only need to copy and paste the values from the spreadsheet into **XML-Profile.ini**

So let's do that:

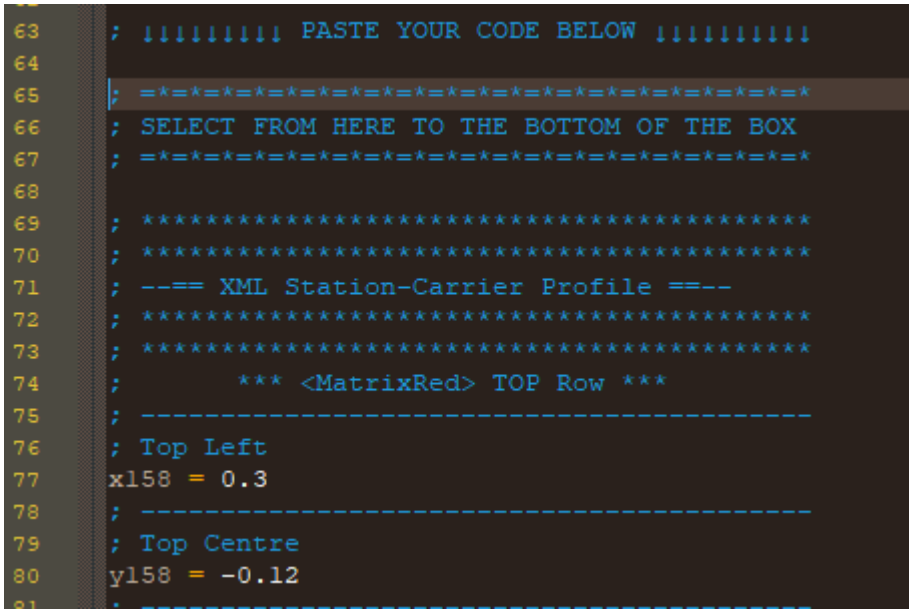
1. Open the **XML Profile Tool** spreadsheet where you entered your colour matrix values

2. As per the instructions, select all the information in the blue box

3. Press CTRL C (copy)

4. Open the file **XML-Profile.ini**

5. Position your cursor at the start of the line:



6. Then click, hold, and drag your mouse all the way to the bottom to select all the text under the cursor position, or press CTRL SHIFT END to select everything from your cursor position to the end of the document.

7. With all the vertical matrix text selected, press CTRL V (paste) to paste the new values from the spreadsheet into **XML-Profile.ini**

8. Save the file, and you're done!

9. Now when you load Elite the panels should look similar to the images in the NO2O post on the Elite forums (the forum post was made years ago before the graphics updates, so the colours may have a slightly different shade)

10. It should be noted, the portraits featured in the NO2O post are all Station portraits, not Ship portraits.

You may find the Station / Carrier portraits look good, but the Ship portraits look a bit off / wrong.

However, what you are seeing is the same output as the old XML method would give you – it's not the mod screwing up the portraits, it's the way Elite handles the colour matrix, as Elite wasn't built for colour filters.

However, we have a special method for improving Ship portraits that I'll detail in the next section.

4. Improving your portraits

To improve the colour representation of our portraits, it's necessary to understand the structure of the data inside **XML-Profile.ini**

There are 27 values that describe how EDHM reads our colour matrix, with three groups of nine values.

The first nine values define the colour of the Station / Carrier panels, and are exactly the colour matrix values we first entered into the Green rectangle on the spreadsheet.

The second set of nine values is the Inverse matrix, the numbers in the orange rectangle on the spreadsheet. These are the values that fix our portraits.

The third set of nine values define the colour of the Ship panels, and will initially be the same as the first set of nine values.

In summary, the structure of the vertical matrix in **XML-Profile.ini**

- -
1st set of values = Station / Carrier panel colours
- -
2nd set of values = Portrait fix
- -
3rd set of values = Ship panel colours
- -

**** Activating 3Dmigoto Dev Mode to reload your changes in-game ****

Before you work on your portraits you will need to activate Developer Mode so you can reload your changes without exiting Elite. You'll probably reload Elite approximately 30+ times, so it's not feasible to exit and re-start Elite each time, plus reloading allows you to compare slight colour changes, and switch back and forth between two values.

The modding software 3Dmigoto allows us to make changes to an .ini file and then reload Elite (with new changes) without exiting.

It's very simple to activate Dev Mode, but Elite must not be running.

To activate Dev Mode:

In **Windows Explorer**, navigate to the **elite-dangerous-64** folder, and locate the file:

EDHM-DevMode-ON.bat

Double-click this file and you will be greeted with a DOS screen (green text) that tells you Dev Mode will be activated.

And that's it, Dev Mode is now activated.

When you load Elite you will see green text at the top and bottom of the screen. Don't worry about what this text means as it's only useful for people who develop mods.

Now that Dev Mode is active, whenever you make a change to a colour designation in **Startup-Profile.ini** you can press **F11** to instantly load that colour change in-game.

Also, you can hide the green text by pressing the decimal button (.) on the NUMPAD.

When you're finished experimenting and choosing your colours, please make sure you turn Dev Mode OFF because it can reduce FPS when active (hiding the green text is not the same as turning Dev Mode off).

To de-activate Dev Mode:

In Windows Explorer, navigate to the **elite-dangerous-64** folder, and locate the file:

EDHM-DevMode-OFF.bat

Double-click this file and again you will be greeted with a DOS screen and green text indicating Dev Mode is now off.

The Dev Mode reload feature is very useful so please become comfortable turning it on and off.

Fixing your portraits

Assuming Dev Mode is active and you have loaded all the data into **XML-Profile.ini** from the **Profile Tool** spreadsheet, please follow this procedure to improve your portraits:

1. Dock at a station and open the station main panel

2. Examine the Station portraits, do they look ok?

The portraits on the Station panels are the best we can do automatically.

However, some XMLs completely destroy portraits with no hope of fixing them. This often occurs when an XML omits a colour channel completely, such as XMLs that are mostly one colour. In those situations, a black & white / greyscale conversion might be the best outcome, and I'll describe that process in a moment.

[*continues next page*]

3. Open **XML-Profile.ini** in a text editor and scroll past the Station Panel values (the first set of nine values) and stop when you come to the section titled 'XML Portrait Fix'.

It will look something like this (but with different numbers)

```
; ********************************************
; ********************************************
;       --== XML Portrait Fix ==--
; ********************************************
; ********************************************
;       *** <MatrixRed> TOP Row ***
; ------------------------------------------
; Top Left
x153 = 0.1
; ------------------------------------------
; Top Centre
y153 = -0.117
; ------------------------------------------
; Top Right
z153 = 0.996
; ==========================================
;   *** <MatrixGreen> MIDDLE Row ***
; ------------------------------------------
; Middle Left
x154 = -0.768
; ------------------------------------------
; Middle Centre
y154 = 0.904
; ------------------------------------------
; Middle Right
z154 = 0.031
; ==========================================
;    *** <MatrixBlue> BOTTOM Row ***
; ------------------------------------------
; Bottom Left
x155 = 0.904
; ------------------------------------------
; Bottom Centre
y155 = 0.113
; ------------------------------------------
; Bottom Right
z155 = -0.036
; ==========================================
```

4. When fixing the portraits we'll follow a general rule:

i. Fix the Station / Carrier portraits first

ii. Fix the Ship portraits second

5. Elite applies some strange colour filter to the Ship panels, which is why the Inverse matrix tends to give us good Station portraits and variable Ship portraits.

* Note: Elite actually applies a third filter to the chat panel (between the Station and Ship panels, but we'll cover that later).

6. So according to our rule, let's fix the Station portraits first.

Firstly, decide if the portraits actually need fixing. Many of the XMLs in the NO2O forum post provide excellent Station portraits.

But assuming they don't look correct, or if you think you can improve on them, we are going to start changing / tweaking the values in the XML Portrait Fix section of **XML-Profile.ini**

7. Start with the very top value (my numbers will be different to yours):

```
111  ;        --== XML Portrait Fix ==--
112  ; ************************************
113  ; ************************************
114  ;        *** <MatrixRed> TOP Row ***
115  ; ------------------------------------
116  ; Top Left
117  x153 = 0.1
```

In general, I recommend increasing the value by 0.2, press F11 to reload Elite, and decide if the portrait looks slightly better or worse. If it's better, further increase the value by 0.2 and again decide if it looks better or worse.

As you can imagine, this is an artistic process that relies on your colour judgement.

With each change in value, you must ask yourself: "Are you getting closer or further away from a natural skin colour?".

If you increase the value and it looks worse, revert back to the original value, then try subtracting 0.2 from the original value. Does it look better or worse?

Then repeat the process for all nine values. Yes, it can be time consuming, but this is art, it's time consuming.

You'll find some values clearly make the portrait better. Look for extreme values like 2.0, as they often benefit from a significant reduction.

But in general, you shouldn't have to tweak your Station portraits too much if the XML is well balanced.

8. Once you're happy with your Station portraits, next we will work on the Ship Panel portraits using the XML Ship Profile section of **XML-Profile.ini**. We don't touch the Portrait Fix values anymore.

Scroll down to the section that begins with:

```
148 ; ********************************************
149 ; ********************************************
150 ;       --== XML Ship Profile ==--
151 ; ********************************************
152 ; ********************************************
153 ;         *** <MatrixRed> TOP Row ***
154 ; --------------------------------------------
155 ; Top Left
156 x150 = 0.04
157 ; --------------------------------------------
```

9. In Elite, open up a portrait on a Ship panel – the crew panel is the best for this task as it offers the largest portrait, but you can also use the portrait on the right-side panel.

Don't use the portraits on the chat panel as Elite applies a different filter there.

10. With a Ship panel portrait open, repeat the same process as before, tweaking the values up and down in the XML Ship Profile section until your portraits start to look better.

Special Note: When tweaking these Ship panel values, I initially skip the first three values and tweak values four to nine. This is because the first three values often change the base colour of the panels dramatically (though not always), and ideally we would like to keep the Ship panels a similar colour to the Station panels.

But sometimes it's necessary to tweak the first three values to obtain a decent portrait, so it's not a strict rule.

Also Note: Tweaking these values will not harm your Station portraits, which is why a separate set of XML values were created for your Ship panels.

After you've been through this process a few times you'll be able to do it quite quickly.

11. When you're finished tweaking, don't forget to deactivate Dev Mode as it can reduce your FPS under some circumstances.

Chat Panel Portraits

You will notice the portraits on the Ship panels have a slightly different set of colour rules than the portraits on the Station panel. The Station panel portraits are the most 'pure' and benefit greatly from the inverse matrix fix.

Because the Ship portraits have an unknown colour filter applied, the inverse matrix doesn't revert them back to the default state, which is why we need to do some tweaking to restore them.

To add another layer of complexity, the Chat Panel portraits have yet another unknown filter applied, but at least that filter is somewhere between the Station panels and the Ship panels.

By default, the mod uses the XML from the Ship panels to colour the Chat panel. But sometimes the XML from the Station panels provide a better portrait fix for the Chat Panel than the XML from the Ship panels.

To switch the Chat Panel filter from the Ship panels XML to the Station Panels XML, open the file **XML-Profile.ini** in a text editor, and look for the section:

```
11  ; ========================================
12
13  ; Chat Panel Portrait Model
14
15  ; Elite uses three different filters to render the portraits, whi
16  ; We can use the dual XMLs below to fine tune our portraits on th
17  ; Sometimes the chat panel portraits look better with the Ship pa
18  ; to the chat panel portraits (try both, see which is better)
19
20  ; (0 = Use the Ship Panel XML) (1 = Use the Station panel XML)
21  x124 = 0
22
```

Setting **x124 = 1**

will instruct the mod to use the Station panels XML for the Chat Panel portraits.

It's impossible to predict which filter will be better, so please experiment.

In this section of **XML-Profile.ini** are several other panel options that are self-explanatory. Please read through the text descriptions and experiment with the values while in Dev Mode.

Un-fixable portraits: Use the Black & White filter

If your favourite XML is mostly a single colour you will have problems obtaining a good portrait. This is because skin colour depends on all three colour channels being present in the colour matrix (Red, Green and Blue).

The XML matrix defines the colour-space Elite can use. There must be a dominant value in each column of the matrix (columns are Red, Green and Blue) or a colour channel will disappear.

When you have portraits with blue or purple faces it can be a little off-putting, but you can change your portraits to Black & White (greyscale).

1. Exit Elite and turn on Dev Mode. Now load Elite with Dev Mode active.

2. Open the file **XML-PortBW.ini** in a text editor and look inside.

This file allows you to override the XML matrix on the portraits, and sets each colour channel to the average of all three colour channels (which makes the portraits greyscale).

To set the override, please see the section:

```
10  ; Black and white portraits [OFF = 0, ON = 1] (default is OFF)
11  ; Setting this value to 1 will override the settings in XML-Profile.ini
12  w156 = 0
```

Set **w156 = 1** to activate the Black & White override, and press **F11** to reload.

3. When you reload you will see your portraits are monochrome, but they may have a colour cast through the image (such as a blue, yellow or red tint).

4. In the file **XML-PortBW.ini** are controls to remove the colour cast from the portraits.

```
; Red channel colour cast
x156 = 0.00

; Green channel colour cast
y156 = 0.00

; Blue channel colour cast
z156 = 0.00

; Brightness of greyscale portraits (value can be greater than 1)
w154 = 1.0
```

As you tweaked the colour portraits, you can do the same here. But this time initially increase / decrease the values by very small amounts (i.e., + / - 0.02)

Sometimes the values will need to be increased / decreased by larger amounts, but start small and work upwards.

Please note: The colour channel designations are the theoretical true colour channels before the application of the XML. Often an XML colour matrix will reverse the Red and Blue colour channels, or transform the colour channels in unpredictable ways.

So please don't always expect to reduce a blue colour cast by reducing the Blue channel input, it might be located under the Red or Green channel value instead.

Colour maths is complicated, as you will discover!

When all else fails, change your source XML colour matrix (or ask for help)

There are some XML colour matrices in which the portraits cannot be restored by any means. I have seen these colour matrices often posted on reddit, and no matter how many tweaks I make to **XML-Profile.ini** or **XML-PortBW.ini**, I can't get the portraits to an acceptable quality level.

In this situation you have two choices: Tolerate terrible portraits or tweak your original XML matrix. Often beneficial tweaks can be made to the original colour matrix without significantly affecting the overall aesthetic of the colour theme.

If you're having trouble obtaining a decent portrait then you're welcome to ask for help in the EDHM post on the Elite forums.

https://forums.frontier.co.uk/threads/elite-dangerous-hud-mod-edhm.557033/

5. Creating a default profile for your HUD

Now that you have your panels configured, it's time to configure your HUD.

As mentioned previously, your main HUD colour settings are stored in the file **Startup-Profile.ini**, while the panel colours are stored in **XML-Profile.ini**

We've finished working with **XML-Profile.ini** to configure the panel colours and portraits, so let's create a new **Startup-Profile.ini** for your default HUD profile:

1. First, back-up your current **Startup-Profile.ini** by moving it into the **Ini-Backups** folder (in the **EDHM-ini** folder).

2. Next, open the **New-Profile-Template** folder and copy the file **Startup-Profile.ini** into the **EDHM-ini** folder.

3. Make sure you have Dev Mode switched on and load Elite.

4. You will notice the HUD elements are coloured by your XML colour matrix (well, they should be!)

5. Open **Startup-Profile.ini** and you will notice all the colour designations are set to load the XML colour matrix option on all the elements (usually the unique alphanumeric code = 199).

6. The XML theme will often work well across the elements. Now try adding a new shield, or distributor or radar to give the profile your personal touch.

7. If you're not sure how to configure **Startup-Profile.ini**, please see the **EDHM v1.5 Manual**.

Please note: The text colour is unfortunately an 'undercoat' or 'underlay' on the panels, so the XML colour will apply a filter to the text colour. Try the various text colour options to find a text colour that harmonises with the profile.

6. Creating a Hotkey XML profile for your panels and HUD

Often CMDRs are content with their default profile and just want to add a new Hotkey profile that's activated with a key press.

To do so, run through the procedure in the previous section, but pause before you paste the code from the blue box into **XML-Profile.ini**, since we don't want to overwrite our default profile.

Nevertheless, we do need to transfer the blue box spreadsheet values into a temporary **XML-Profile.ini** so we can tweak our portraits (please see the previous section)

1. Move your current **XML-Profile.ini** into the **Ini-Backups** folder (in the **EDHM-ini** folder)

2. Next, open the **New-Profile-Template** folder and copy the file **XML-Profile.ini** into the **EDHM-ini** folder.

3. Now you can paste the **XML Profile Tool** spreadsheet blue box into the new **XML-Profile.ini** and tweak your matrices for good portraits (please see the previous section)

4. When you're finished tweaking, go back to the **Profile Tool** spreadsheet, look down towards the bottom of the **Profile Tool** spreadsheet and click on the **TAB: Hotkey Profile**.

5. Please read the instructions on the Hotkey Profile page.

As indicated, we will be editing the values and selecting dropdown boxes in the pink bordered cells.

6. First, choose a name for your new profile. Something descriptive that will help you remember the colours.

7. Next, choose a Hotkey to activate the profile, and add a modifier if you wish.

At a later stage you may manually add a second modifier and other options. Please see the **EDHM v1.5 Manual** for a detailed discussion of how to configure Keybinds.

8. Choose your preferences for all the HUD elements via the drop-down menus.

9. In the Optional Additions section, if you used the alternative Chat Panel Portrait Model then be sure to select it here.

10. Once you've finished selecting your preferences, we're going to copy all those preferences into the file **MyProfiles.ini**, which stores all the Hotkey profiles.

In Windows Explorer navigate to the **EDHM-ini** folder, open the **MyProfiles** folder, then open the file **MyProfiles.ini** in a text editor.

11. As per the instructions on the spreadsheet, highlight both the Green and Blue boxes, and press CTRL C (copy).

12. With **MyProfiles.ini** open, scroll to the bottom, and press CTRL V (paste), and you will paste a large amount of text into **MyProfiles.ini**. Have a look through the text you just pasted – each line specifies an option you have chosen in the spreadsheet.

13. If you would like to add a second modifier or other options to the Keybind, then scroll up to the title of the profile you just pasted and make your changes.

For example,

```
; Paste your Hotkey Profiles below here:

[keyToggle-Saud-Kruger-LUX]
Key = NO_ALT SHIFT CTRL NUMPAD2
; HUD Dimmer
y100 = 5
; Lighting Dimmer
w103 = 1.0
; Cabin Lighting Colour
x103 = 001
; Lighting Style
z115 = 0
```

Now for the tricky part.. 😊

14. If you tweaked any values inside **XML-Profile.ini** then those modified values need to be transferred into the Hotkey profile you just pasted into **MyProfiles.ini**

You will find the 27 colour matrix values (three sets of nine values) at the bottom of the profile, like this:

```
87  ; == Station XML ==
88  ; Top Row <Matrix Red>
89  x158 = 0.3
90  y158 = -0.12
91  z158 = 0.6
92  ; Middle Row <Matrix Green>
93  x159 = 0
94  y159 = 1
95  z159 = 0.95
96  ; Bottom Row <Matrix Blue>
97  x160 = 1.1
98  y160 = 0.13
99  z160 = 0
100 ; == Portrait Fix ==
101 ; Top Row <Matrix Red>
102 x153 = 0.1
103 y153 = -0.117
104 z153 = 0.996
105 ; Middle Row <Matrix Green>
106 x154 = -0.768
107 y154 = 0.904
108 z154 = 0.031
109 ; Bottom Row <Matrix Blue>
110 x155 = 0.904
111 y155 = 0.113
112 z155 = -0.036
113 ; == Ship XML ==
114 ; Top Row <Matrix Red>
115 x150 = 0.04
116 y150 = -0.12
117 z150 = 1
118 ; Middle Row <Matrix Green>
119 x151 = 0
120 y151 = 1
121 z151 = 1.3
122 ; Bottom Row <Matrix Blue>
123 x152 = 0.5
124 y152 = 0.05
125 z152 = -0.02
```

Usually the first 9 values will be the same across both files (**MyProfiles.ini** and **XML-Profile.ini**) as we don't often change the Station panel values.

But carefully check if the matrix values in **MyProfile.ini** are the same as the matrix values in **XML-Profile.ini**.

Please ensure you are checking the correct corresponding values between documents, for example:

x153 =

y153 =

z153 =

etc, etc

If the values are different, delete the relevant value in **MyProfiles.ini** and paste the value from **XML-Profile.ini**

I hope this makes sense – you are adding your **XML-Profile.ini** tweaks into the Hotkey profile.

I completely understand this process is a hassle but I don't have a better method at this stage.

At the end of the process you should have matching matrix values (27 values) between the profile you pasted into **MyProfiles.ini** and **XML-Profile.ini**

Now that your Hotkey profile is finished, you can move your temporary **XML-Profile.ini** out from the **EDHM-ini** folder – I suggest saving it somewhere on your PC in case you need it again in the future. You could create a Profiles folder for mod profiles you have made yourself (I recommend outside the Elite game directory).

After you have moved the temporary **XML-Profile.ini** out from the **EDHM-ini** folder, go into the **Ini-Backups** folder and move your default profile **XML-Profile.ini** back into the **EDHM-ini** folder.

Special Note: 3Dmigoto doesn't have a way of re-loading the values in **Startup-Profile.ini** or **XML-Profile.ini** after you activate a Hotkey profile (except in Dev Mode, but you wouldn't have that active while you're playing).

Therefore, I recommend creating a Hotkey profile for your default profile so you can switch back to your default profile after activating another Hotkey profile.

Simply follow the procedure as above, but instead use all the settings/values from your default profile (**Startup-Profile.ini** and **XML-Profile.ini**).

Good luck!

And if you need any help, don't hesitate to ask in the EDHM thread on the Elite forums:

https://forums.frontier.co.uk/threads/elite-dangerous-hud-mod-edhm.557033/

7. Creating a new XML colour matrix

This section is under review as I'm currently testing different methods. Please check the EDHM thread on the Elite forums for an update to this document.

Appendix: Valid key names for keybinds / Hotkeys

Here is the list of valid key codes that can be used for keybinds:

Main Keyboard	Valid usage in Keybinds.ini
A to Z	A to Z
1 to 0 numerical keys	1 to 0 numerical keys
F1 to F12	F1 to F12
Minus (-) or underscore (_)	OEM_MINUS
Plus (+) or equals (=)	OEM_PLUS
Period (.) or (>)	OEM_PERIOD
Comma (,) or (<)	OEM_COMMA
Colon (;) or (:)	OEM_1
Question mark (?) or (/)	OEM_2
Tilde (~) or (`)	OEM_3
Open brace ({) or ([)	OEM_4
Pipe (|) or (\)	OEM_5
Close brace (}) or (])	OEM_6
Quotation mark (") or (')	OEM_7
Tab	TAB
Backspace	BACK
CAPS LOCK	CAPITAL
Space bar	SPACE
Enter key	RETURN
Insert key	INSERT
Delete key	DELETE
Home key	HOME
End key	END
Page Up key	PRIOR
Page Down key	NEXT
Arrow Up	UP
Arrow Down	DOWN
Arrow Left	LEFT
Arrow Right	RIGHT
Pause key	PAUSE
Menu key	APPS
Scroll Lock key	SCROLL
NUMPAD / NUMLOCK ON	
Numpad 0 to 1	NUMPAD0, NUMPAD1, etc
Numpad *	MULTIPLY
Numpad +	ADD
Numpad -	SUBTRACT
Numpad /	DIVIDE
Numpad .	DECIMAL

MOUSE BUTTONS	
Left mouse button	LBUTTON
Right mouse button	RBUTTON
Middle mouse button	MBUTTON
X Button 1	XBUTTON1
X Button 2	XBUTTON2
MODIFIER KEYS	
CTRL (either left or right)	CTRL
Left CTRL	LCTRL
Right CTRL	RCTRL
ALT (either left or right)	ALT
Left ALT	LALT
Right ALT	RALT
Shift (either left or right)	SHIFT
Left Shift	LSHIFT
Right Shift	RSHIFT

Using Modifier Keys

You can use a modifier key to add extra keybind options to single key:

For example,

CTRL P (CTRL + P)

LALT P (Left ALT + P)

You can also add multiple modifiers:

CTRL ALT P (CTRL + ALT + P)

[*continues next page*]

Special Modifier Commands

Say for example you have the following keybinds in your **KeyBinds.ini**

P : Explorer Mode

CTRL P : Cycle shield colour

ALT CTRL P : Cycle lighting colour

When **ALT CTRL P** is pressed, the modding software 3Dmigoto cannot differentiate between:

P, **CTRL P**, and **ALT CTRL P**

So all three commands will be executed. And we don't want that to happen.

In this situation we need to tell 3Dmigoto to limit the keybinds to specific keys.

We can add the **NO_MODIFIERS** command to execute a single key only:

For example,

NO_MODIFIERS P (will execute the command only if the P key is pressed without modifiers)

We can also exclude certain modifiers by prefixing the modifier with **NO_**

For example,

NO_ALT CTRL P

This command will only execute if **CTRL P** is pressed, but not **ALT CTRL P**