

Ground Environment Professional



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Ground Environment Professional Help



Welcome to the Ground Environment Professional help file. The latest version of Ground Environment gives you much more flexibility on how you wish to display your textures within Flight Simulator 2004.

You will be able to enhance your textures in a way that no other Flight Simulator expansion pack has ever enabled you to do before. This is definitely a great leap forward in FS technology and we hope you will enjoy many hours customizing the look and feel of your Flight Simulator environment.

In this latest version of Ground Environment you will find links to ground breaking products and also to our support forum, allowing you to obtain support for your Flight One product from within Ground Environment itself.

There is also a screen for a revolutionary way to configure the look and feel of Flight Simulator before you fly. The Weather Control screen will allow you to obtain METAR reports for your departure point and destination. You will also be able to select waypoints using ICAOs en-route to enable Ground Environment Professional to intelligently select the best Texture Sets (Ground and Sky) for the weather conditions en-route. You will be able to view a comprehensive fully decoded METAR for departure and destination plus this tool is a great way to learn what a METAR actually means. And to add to all this there is also a Weather finder so that you can look for specific flying conditions before you fly.

Note: Ground Environment Professional is not a Weather Engine or Flight Planner but uses the information from the METARs to decide which texture set would be the most appropriate for the average Weather Conditions during your Flight.

Ground Environment Professional is the next step forward in the way you use Flight Simulator and we hope that you will enjoy many hours of fun with this, the most advanced, tool for FS2004 to date.

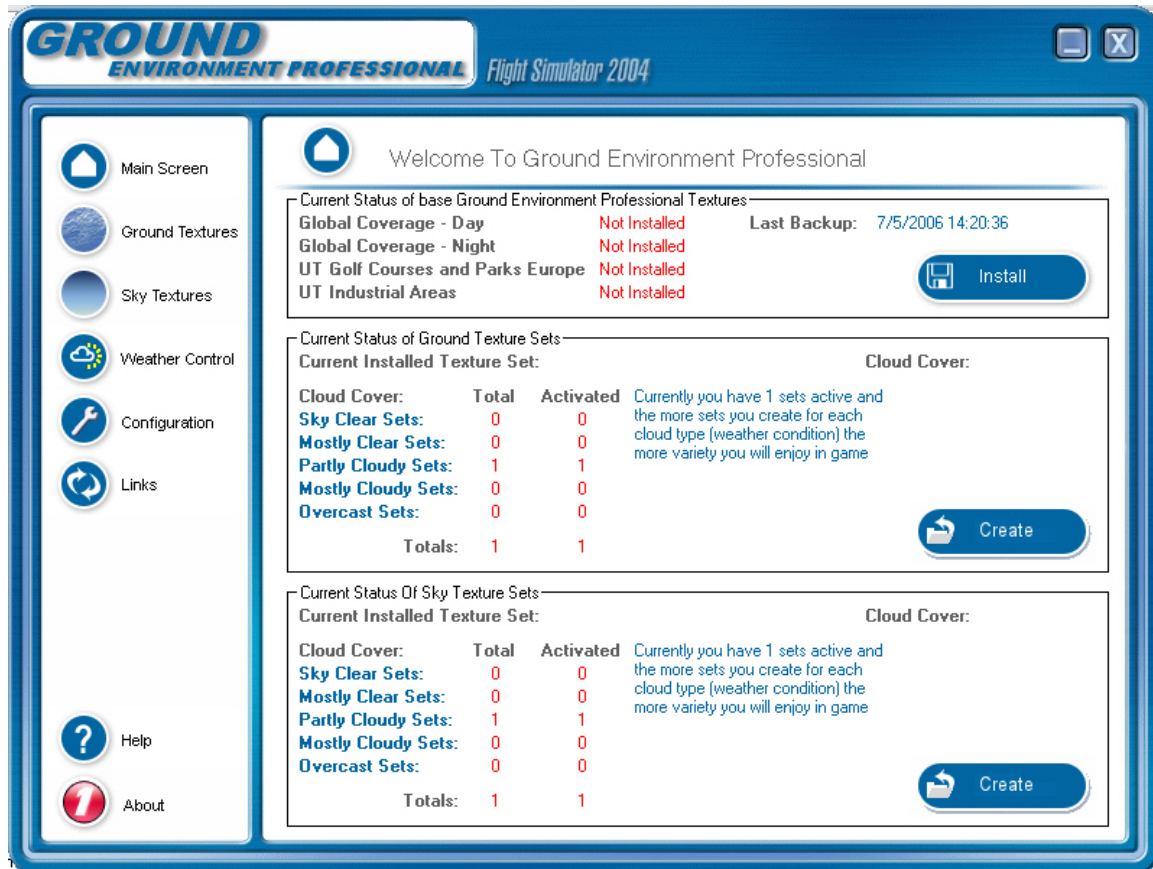
Copyright © 2006 - 2007 Flight One Software

Quick Start Guides

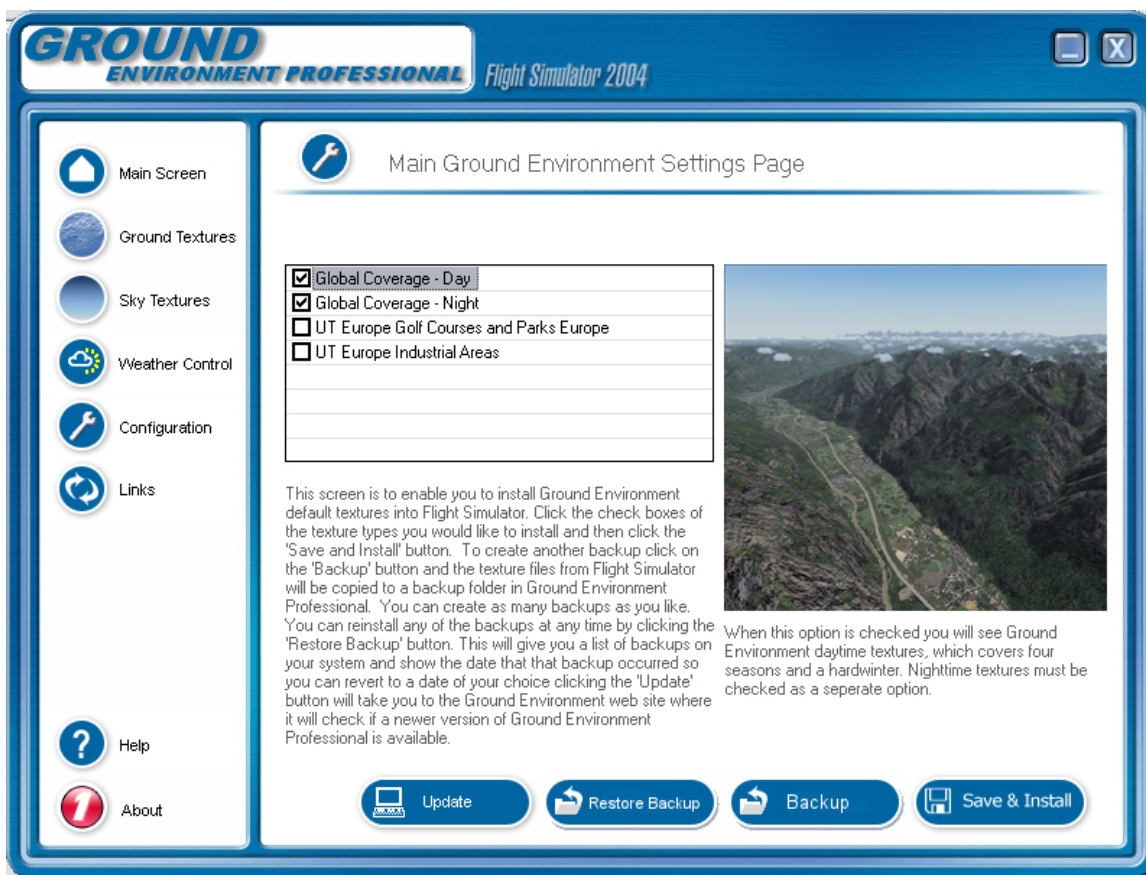
Ground Environment Professional - Install Base Textures

When you first start Ground Environment Professional an initial backup takes place so that there is a snapshot of your Scenery\WORLD\Textures folder to return to at a later date if you wish

After the backup is done the Splash screen will close and you will be presented with the following page.

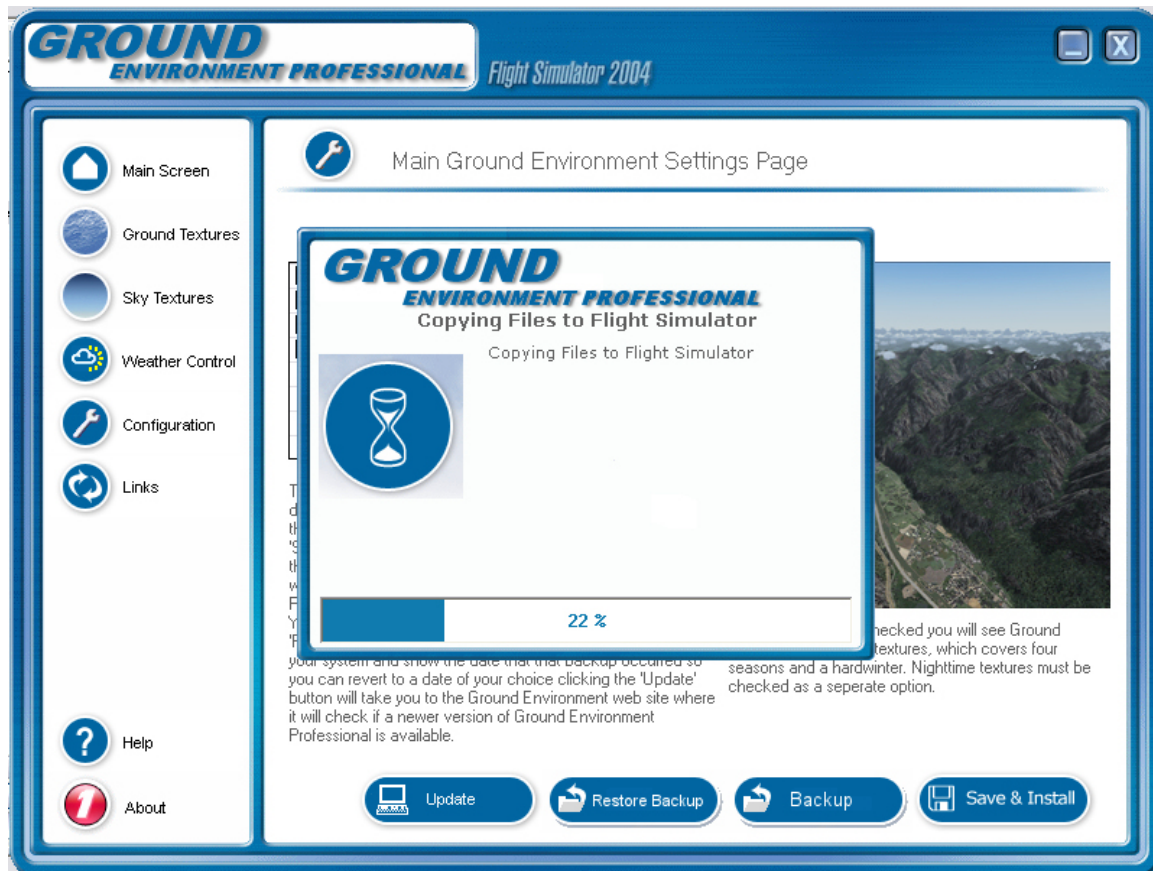


Here you will see the current status of Ground Environment Professional. As you can see, no base textures have been installed into Flight Simulator so our next step is to install the base textures. Click on the install button (top right) and you will be taken to the following screen.

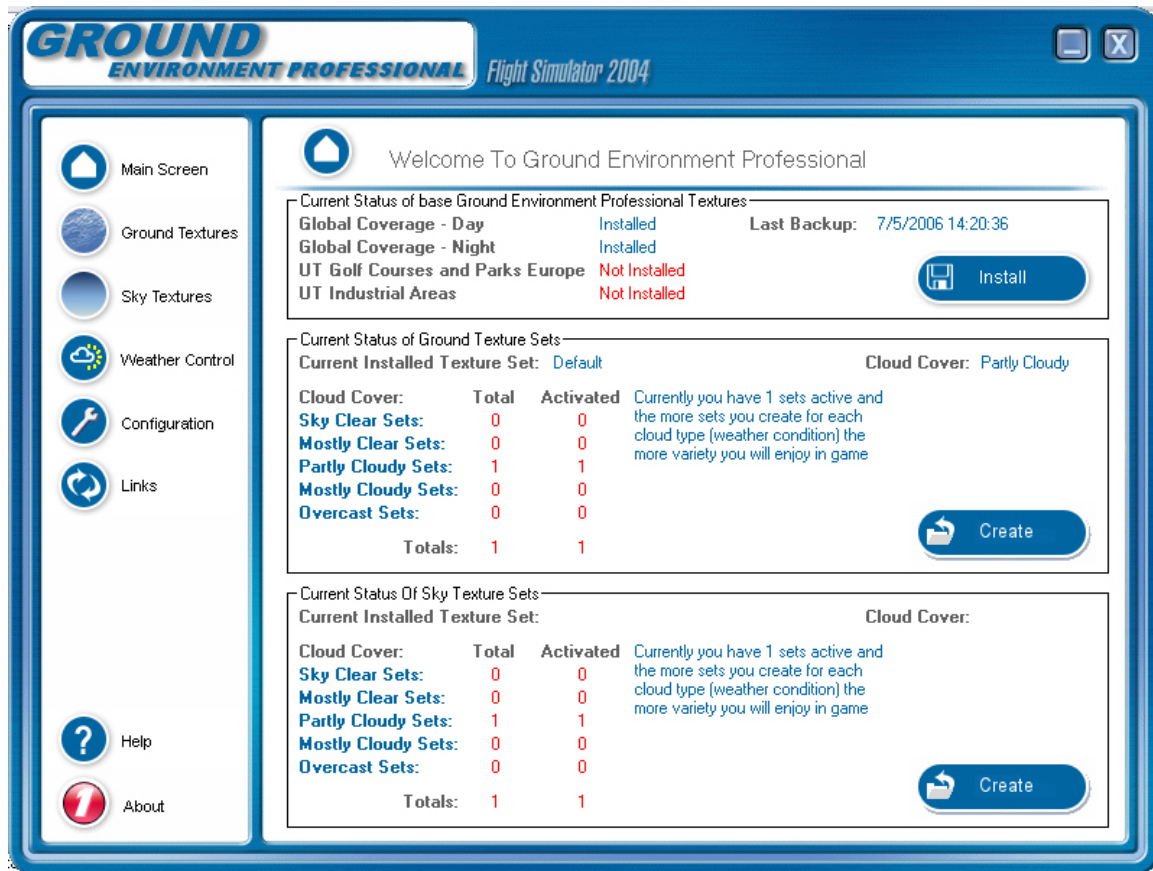


This is the screen where we install our base textures. Select the textures you wish to install from the list. Here you will see I have selected that I wish to install Global Coverage Day and Global Coverage Night. Ensure that if you do not have Ultimate Terrain Europe that you do not select the last two options.

Now just click Save and Install and the Texture Sets will be installed into Flight Simulator for you.



Once the textures are installed you should see in the top section that Global Coverage - Day and Global Coverage - Night textures have been installed. You will also notice that under 'Current Status Of Ground Texture Sets' (second frame down) that we now have the Default Texture Set installed.



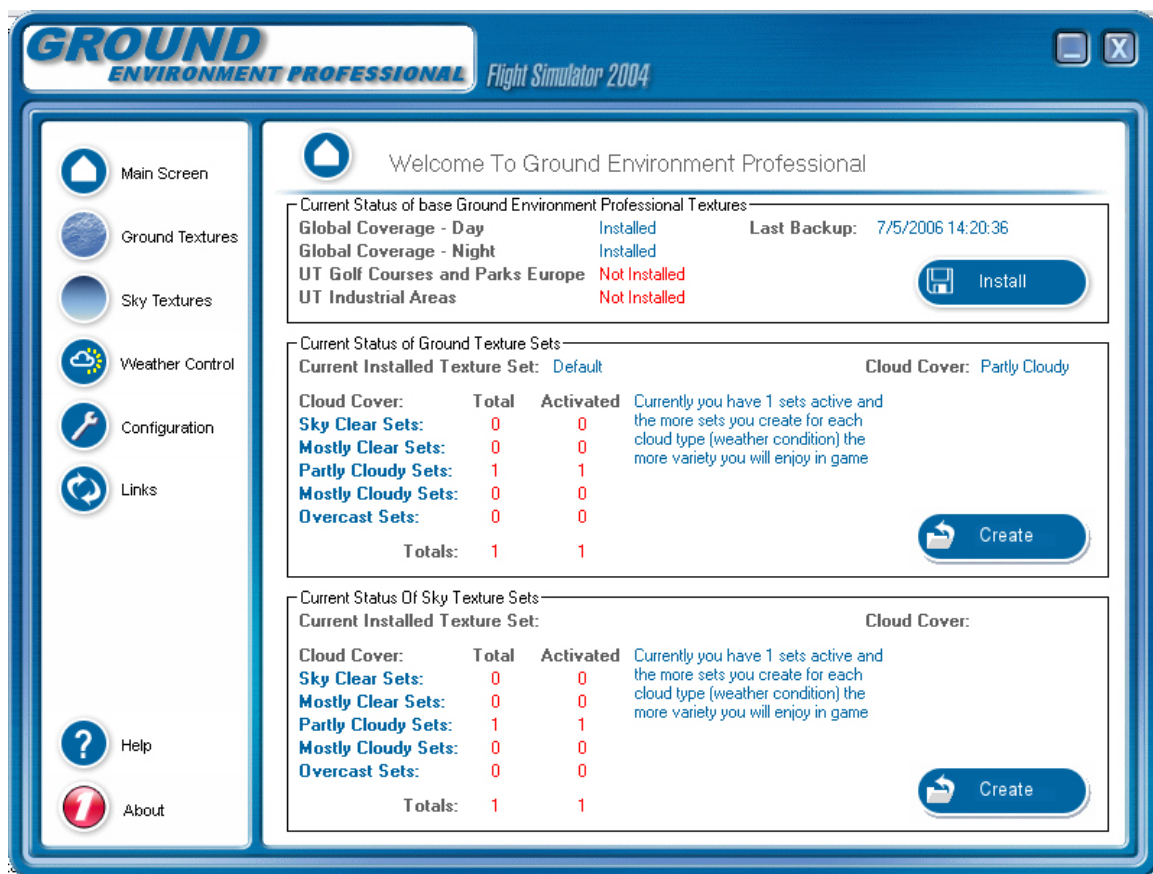
Ground Environment Professional is now at a stage where you can open Flight Simulator and enjoy the Textures that have been created by Peter Wilding and Anthony Vos. This is the minimum to get started. In the next quick start we will begin the customization of the environment so that you can begin to see the power of this application.

Ground Environment Professional - Create Base Texture Sets

Now we will go a bit further into the use of Ground Environment Professional. This is where the power and uniqueness starts to become apparent.

In the previous section we have installed our base textures and have probably had a look at our new environment from within Flight Simulator. Now we are going to do something that will really release the potential of Flight Simulator, we are going to create custom texture sets from the base textures to match the five cloud cover situations within a standard weather report. Each set will be dynamically colored and created - a first for Flight Simulator!

We will open Ground Environment Professional and start where we left off, with the base sets installed.



As you can see we have one ground texture set installed. This is the default texture set which is based on a Partly Cloudy situation. Now we are going to create 4 more sets to cover the 5 cloud cover conditions (be aware that on an average system Ground Texture Sets take around 20mins to create and use approximately 100mb of disc space therefore this process will take around 80mins and 400mb of disc space). All we do now is select the Create button and the following screen will appear.

GROUND
ENVIRONMENT PROFESSIONAL

Select Textures Quantities

Clear Skies (0 Oktas)	<input type="text" value="1"/>
Mostly Clear (1 - 2 Oktas)	<input type="text" value="1"/>
Partly Cloudy (3 - 4 Oktas)	<input type="text" value="0"/>
Mostly Cloudy (5 - 7 Oktas)	<input type="text" value="1"/>
Fully Overcast Cloud Cover (8 Oktas)	<input type="text" value="1"/>

✓ ✕

As you can see here I have entered a 1 into each of the cloud cover values that I want to create (as the Default Texture set is Partly Cloudy we do not need a Partly Cloudy set for the purposes of this tutorial).

Once we have entered the number of sets we wish to create per cloud cover condition we click on the checkmark button and the creation begins.

GROUND
ENVIRONMENT PROFESSIONAL

Creating Ground Texture Sets

Colorizing texture set 1 of 4 texture sets.
Process 1 of 2 Be aware that this may take
20 - 30 minutes per set dependant on your
system specification.
Please wait.....

Processing file 193 of 2029 files

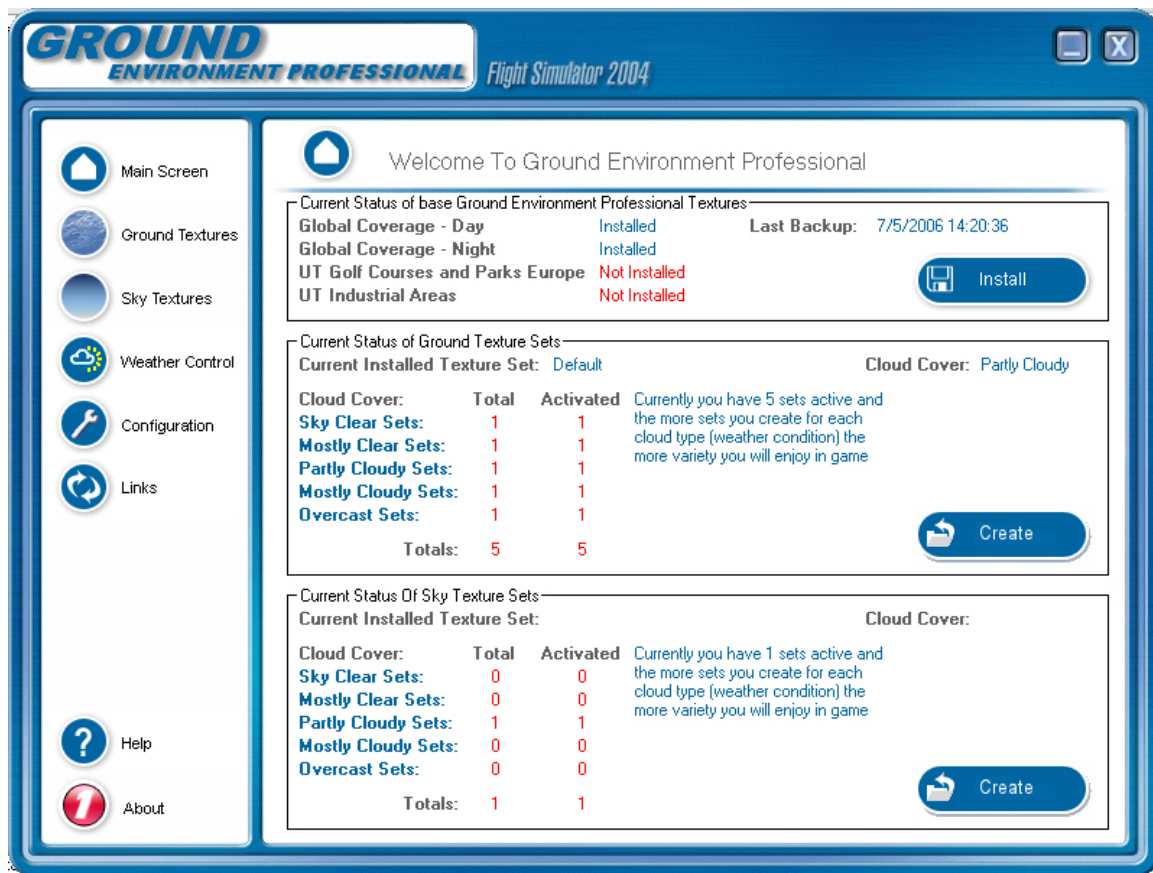
9 %

✕

You can cancel this process at any time and the current texture set being created will be rolled back. Any completed sets already created will not be deleted.

For instance if you start to create 10 sets and find that during the creation of the 6th set you do not have time to complete the process just click on the crossmark button and the processing will stop. The 6th set will be rolled back but the completed 5 previous sets will remain intact.

Once this is completed you will see that the values have changed in the 'Current Status Of Ground Texture Sets' section of the screen.



You will now see you have 5 Ground Texture Sets created (1 for each cloud cover condition). These items are still in red because we believe that you should have a minimum of 2 sets of each cloud cover condition created and ready to install to enable a good variation of looks. There are still sufficient sets here for a good base and you can add more when you have sufficient time. The development team found that creating Ground Texture Sets overnight was best way to quickly build up your collection of sets.

Now we move onto the Sky. The Sky textures can have a dramatic effect on the environment and we are excited that we were able to enable customization of these textures. The sky textures play a large part in how the environment looks and are responsible for subtle shading on the Ground, Aircraft, Clouds and the Horizon.

To create Sky Texture Sets we go through a similar process to the creation of the Ground Texture Sets, but, as you are only coloring around 30 textures which are 32 x 32 pixels compared with over 2000 ground textures which are 256 x 256 pixels, the process will take seconds rather than minutes. This gives you the opportunity to create a large amount of looks in a short period of time.

First select the Create button on the 'Current Status Of Sky Texture Sets' section and you will be presented with the following screen.

GROUND
ENVIRONMENT PROFESSIONAL

Select Texture Set Group

☒ Default ☒ Horizons ☒ Sunny ☒ Tropical

Please enter how many of each of the above texture types you require

Select Cloud Cover

Clear Skies (0 Oktas)

Mostly Clear (1 - 2 Oktas)



Partly Cloudy (3 - 4 Oktas)

Mostly Cloudy (5 - 7 Oktas)

Please be aware Overcast are special textures and only used for overcast conditions and will therefore have their own count

☒ Overcast


Overcast (8 Oktas)

There are subtle differences to this screen as we have more than one set of base Sky Textures to work with. At this stage we are going to create 1 of each cloud cover type for each base texture type. Plus we are going to create 4 overcast texture sets as they are a unique base set and only available for the creation of Overcast conditions. This will give us a total of 4 texture sets per Cloud Cover type. This may seem a lot but it will take less than a minute to complete and give us a good variation of looks as a base. This will give us 20 unique sets of Sky textures colored and customized by you in under 1 minute - a first for Flight Simulator!


To start the process just click the checkmark button

GROUND
ENVIRONMENT PROFESSIONAL
Ground Environment Information

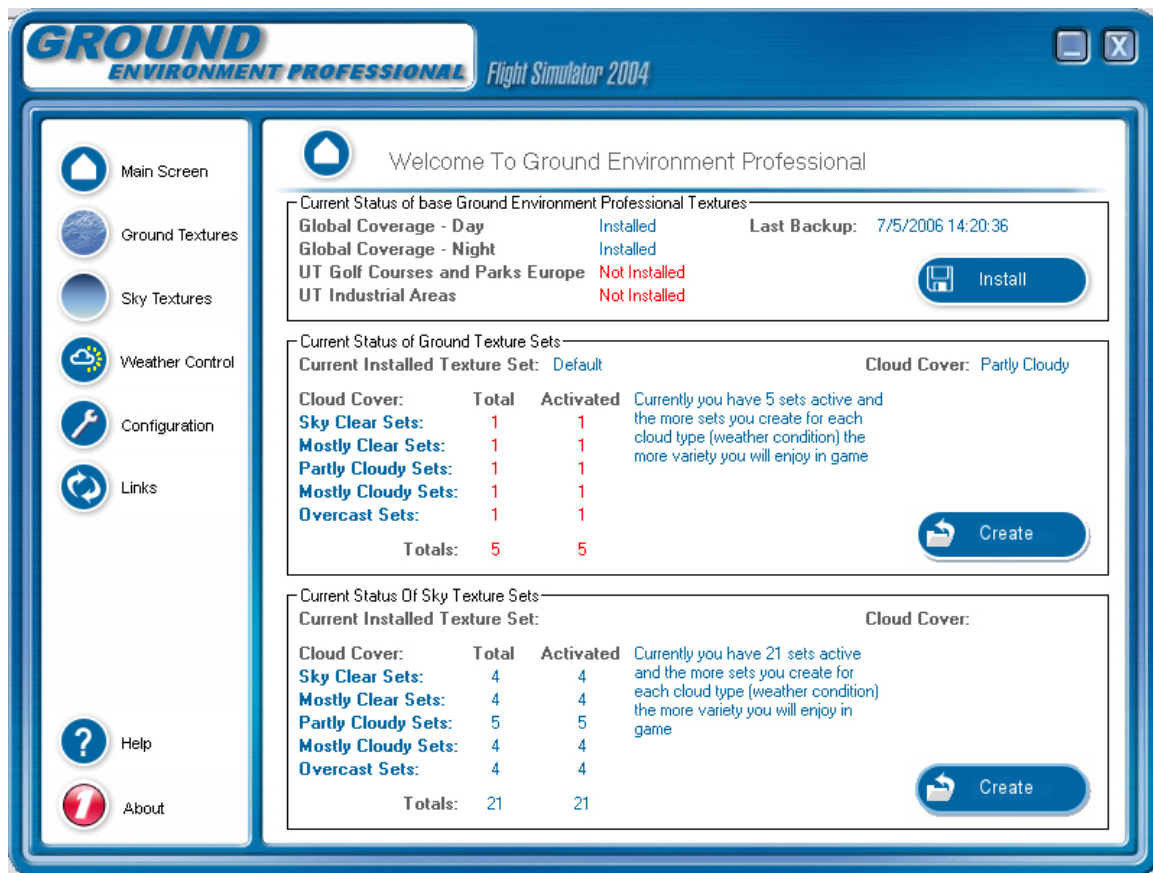


Processing Sky Texture Set 9 of 20.
Please wait until the process has finished.....

Coloring sky_morning_0.bmp which is file 11 of 31

 34 %

Once this is completed you will see the values updated on the main screen.



As you will see here all the Sky texture set values are now in blue which means we believe you have the sufficient minimum to enable a wide variation of looks within Flight Simulator.

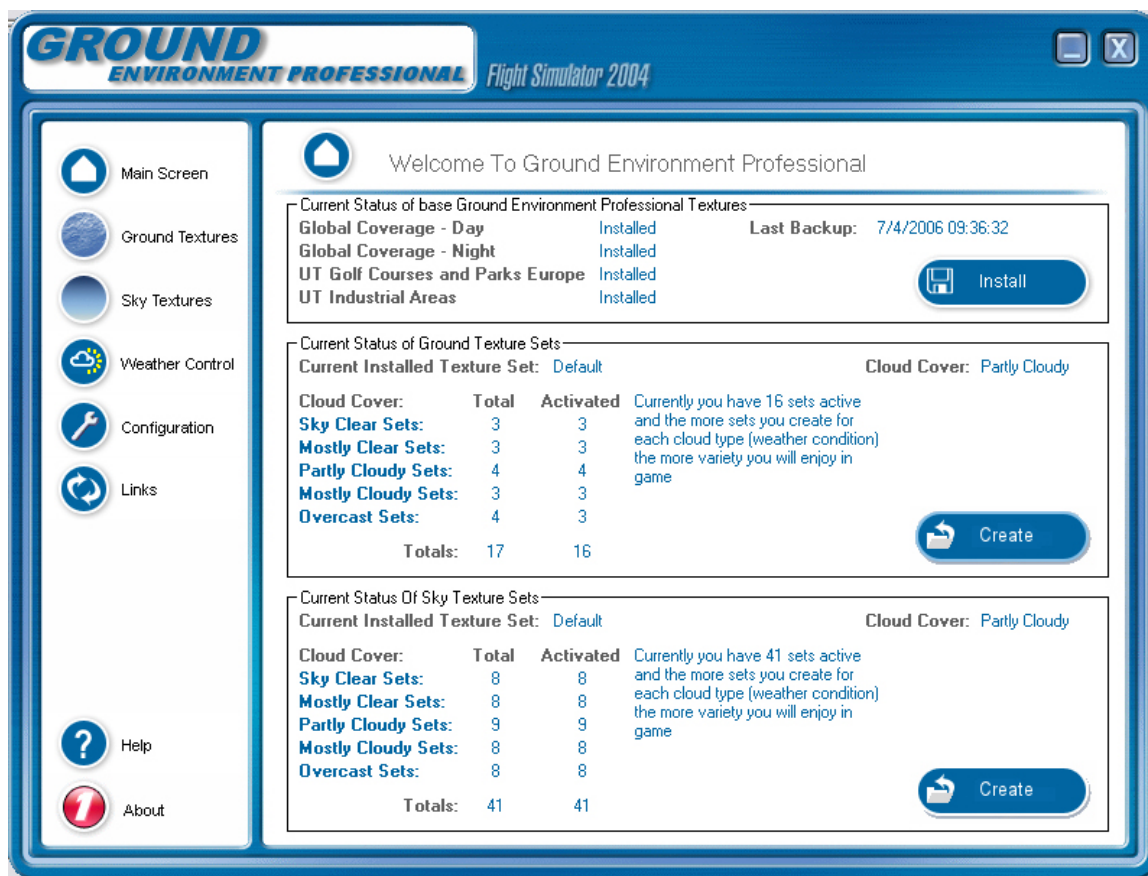
We now have a base in which to really begin to see what we can achieve with regard to the look of the Flight Simulator environment. The more sets you create the more variation you will get. Just like the real world, the look of the environment will change each time you install a set of textures from Ground Environment Professional.

Next we are going to look at various ways of installing textures into Flight Simulator

Ground Environment Professional - Installing Texture Sets (Basic)

Here we are going to discuss the basic way of installing textures sets into Flight Simulator

Before we go any further lets take a look at the main screen again.



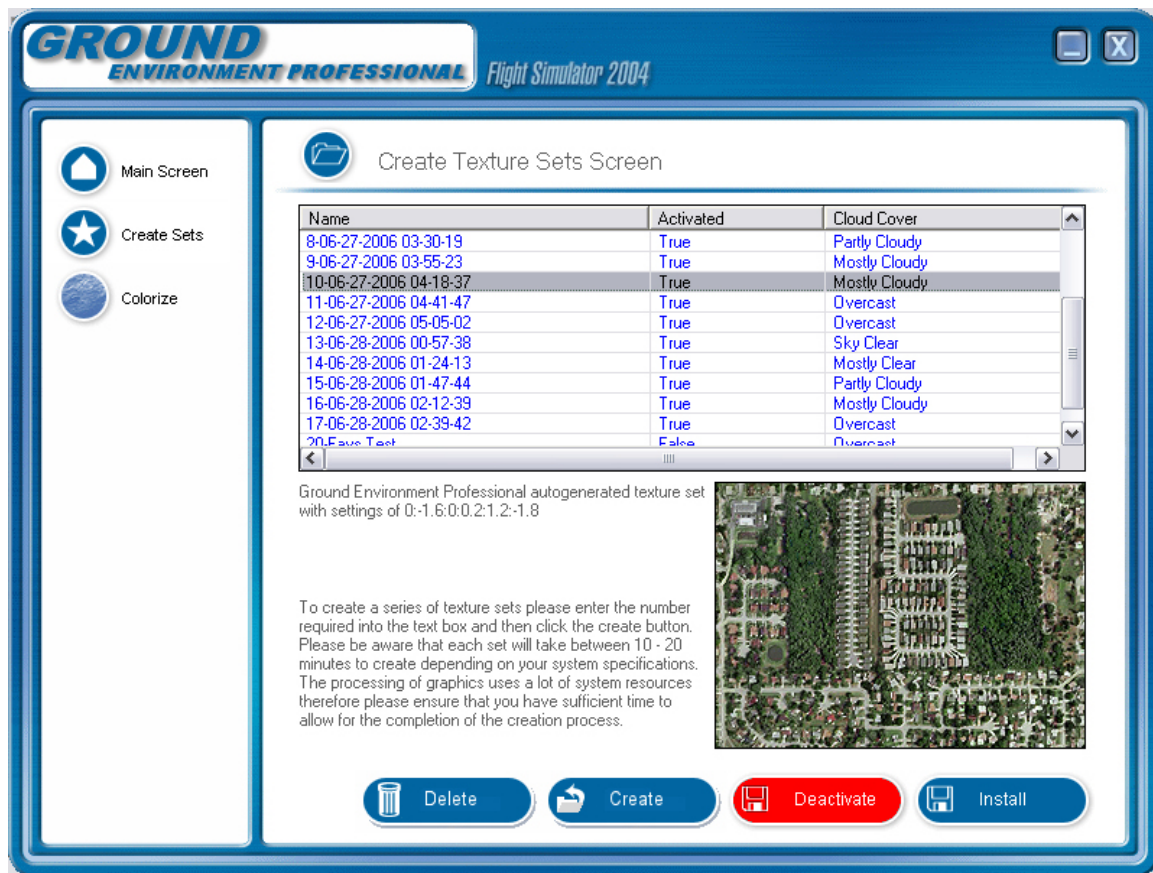
As you can see I have created some more Ground Texture Sets and Sky Texture Sets whilst we were away. I now have a base of texture sets where it will be difficult to get the same exact look twice for a long time.

So, we are here to discuss how we install a texture set into Flight Simulator.

Scenario:

You have seen from your weather application (or other source) that your flight will be conducted in mostly cloudy conditions so you wish to install a set of textures which will match those conditions.

You now click on the Ground Textures button (or Sky Textures button as the procedure is exactly the same) which will take you to this screen



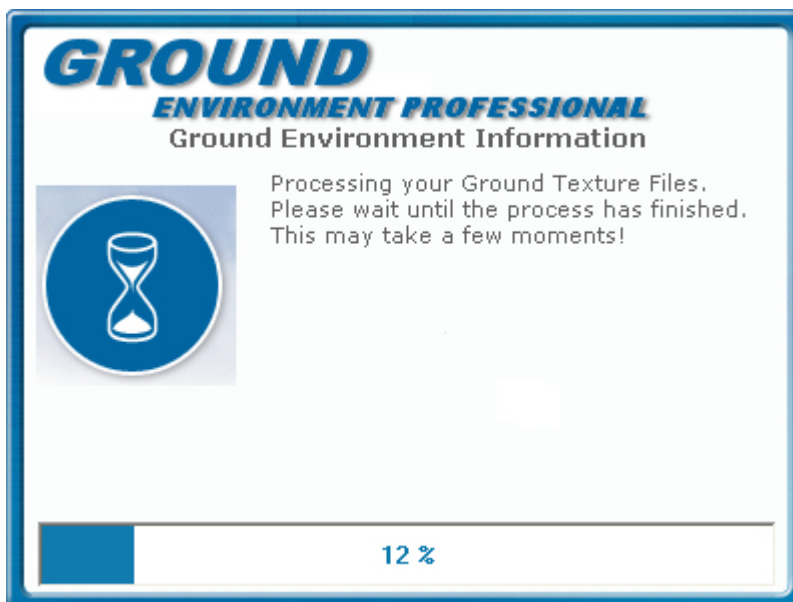
Here you will see a list of the Ground Texture Sets you created. As you can see I have selected a Mostly Cloudy set that I wish to install into Flight Simulator to match the weather that I obtained from my weather application (or other resource).

Once I have clicked on the Texture Set I want to install I click on the Install button. You will then be presented with this message.



This message box asks if you wish Ground Environment Professional to install a matching set of Sky Textures. If you have Sky textures that you currently use that you wish to leave installed in Flight Simulator then select the crossmark button, but, if like me you wish the Sky to match the Ground then select the checkmark button.

Next Ground Environment Professional will install the selected texture set (including Sky if you selected that option).



On completion of the install Ground Environment Professional will ask you if you wish start Flight Simulator. Select the checkmark button to carry on. Ground Environment will start Flight Simulator and minimise to the task bar. Select the crossmark if you wish to start Flight Simulator yourself.



That is the basic method of installing your custom Texture Sets. Remember the process is exactly the same for installing Sky Texture Sets.

Enjoy your flight!

Ground Environment Professional - Installing Texture Sets - METAR

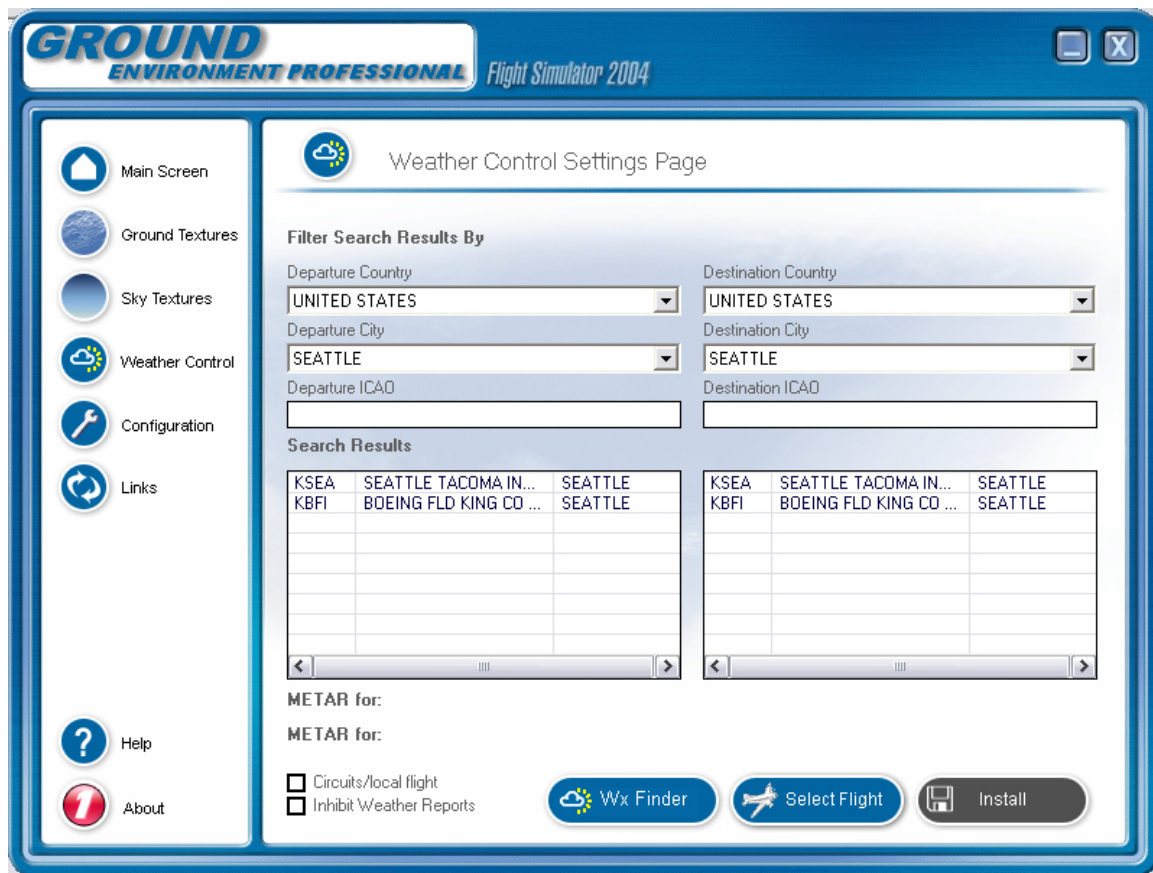
Now we move on a bit further and see how Ground Environment Professional can intelligently install textures for you based on METAR information obtained from your selected departure point, destination and any waypoints you enter in between.

Ok lets' get started.

Scenario:

We wish to Fly from Chicago (KORD) to Atlanta (KATL)

First we open the Weather Control screen and are presented with the following information



Here the default values are

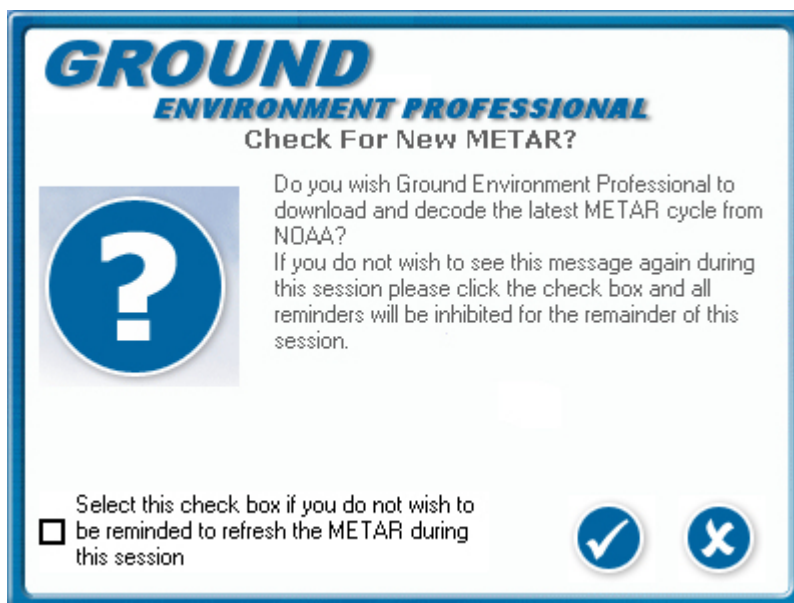
Departure: Seattle (KSEA)

Destination: Seattle (KSEA)

Circuits/Local Flight: unchecked so we can select a destination

Inhibit Weather Reports: unchecked so we can view the decoded METAR for any item we select

So the first thing to do is select the departure Airport. We want Chicago O'Hare (KORD), so, we can either start to type the ICAO code or select Chicago from the departure city combo. Whichever option we use to find KORD we need to select it from the list in the search results listbox. At this point we will be presented with a request to download the latest METAR cycle from NOAA.




Here you have the option to use existing METAR data in the database or download the latest cycle from NOAA. You can also inhibit further requests for METAR updates during the current session by clicking the checkbox to inhibit further requests.

If you have not selected to inhibit Weather Reports then a fully decoded METAR will appear:

GROUND
ENVIRONMENT PROFESSIONAL

Flight Simulator 2004

 Fully Decoded METAR

Be aware some of the METARs may be old if the airport/airfield is small.

ICAO Code: KORD, City: CHICAGO, Airport Name: CHICAGO OHARE INTERNATIONAL

Date: 05 July 2006 Time: 0953Z

Wind from: 350 degrees at 04kts,

Visibility: 10 Mile(s)

Precipitation: No precipitation type recorded

Obscuration: No obscuration phenomina recorded


Sky Conditions: Partly Cloudy

Temperature: 16 degree(s) Celcius

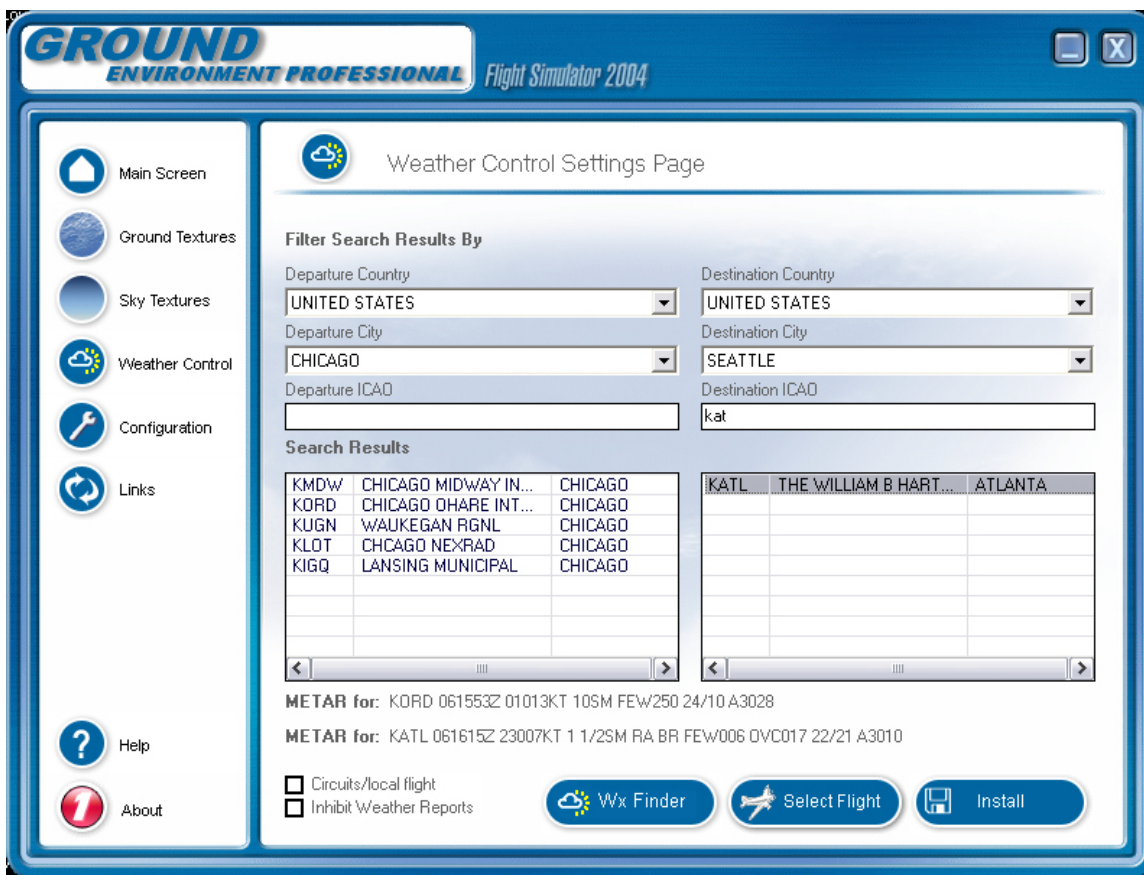
Dewpoint: 13 degree(s) Celcius

Pressure: 30.11 Inches of Mercury

KORD 050953Z 35004KT 10SM FEW070 SCT250 16/13 A3011



We carry out the same procedure with Atlanta (KATL).



This is the result after selection. If you look closely you can see that I used different methods to select the destination and departure airports. The departure airport was selected by using the departure city drop down list to find Chicago and then selecting KORD from the Search Results list. The destination was selected by entering a partial ICAO code into the destination ICAO textbox. When Atlanta appeared in the search results listbox I selected it to add it to our route.

We can now click on the Install button and this will start us towards installing the most appropriate Texture Sets for the average conditions on our route.

The first thing that will happen is that a message box will come up asking if we want to add any waypoints to our route.



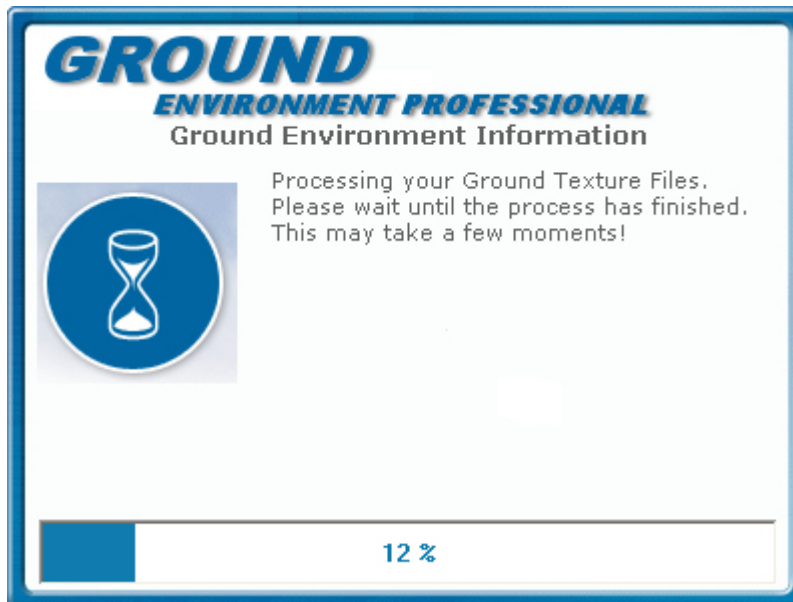
The waypoints will be certain aerodromes either on our route or in the vicinity. You can select the crossmark to say no and Ground Environment Professional will only take into account the departure and destination. In this case we are going to add 2 waypoints to our route so that we get a more balanced set of texture sets installed. Selecting the checkmark button brings up the following screen

We now select the checkmark button to carry on or the crossmark button to abort the procedure.

19



If you select the crossmark then no textures will be installed. If you select the checkmark then Ground Environment Professional will intelligently select a balanced set of Sky and Ground Textures to match the average conditions of your route.



Once the installation is complete Ground Environment Professional will ask if you wish to start Flight Simulator.



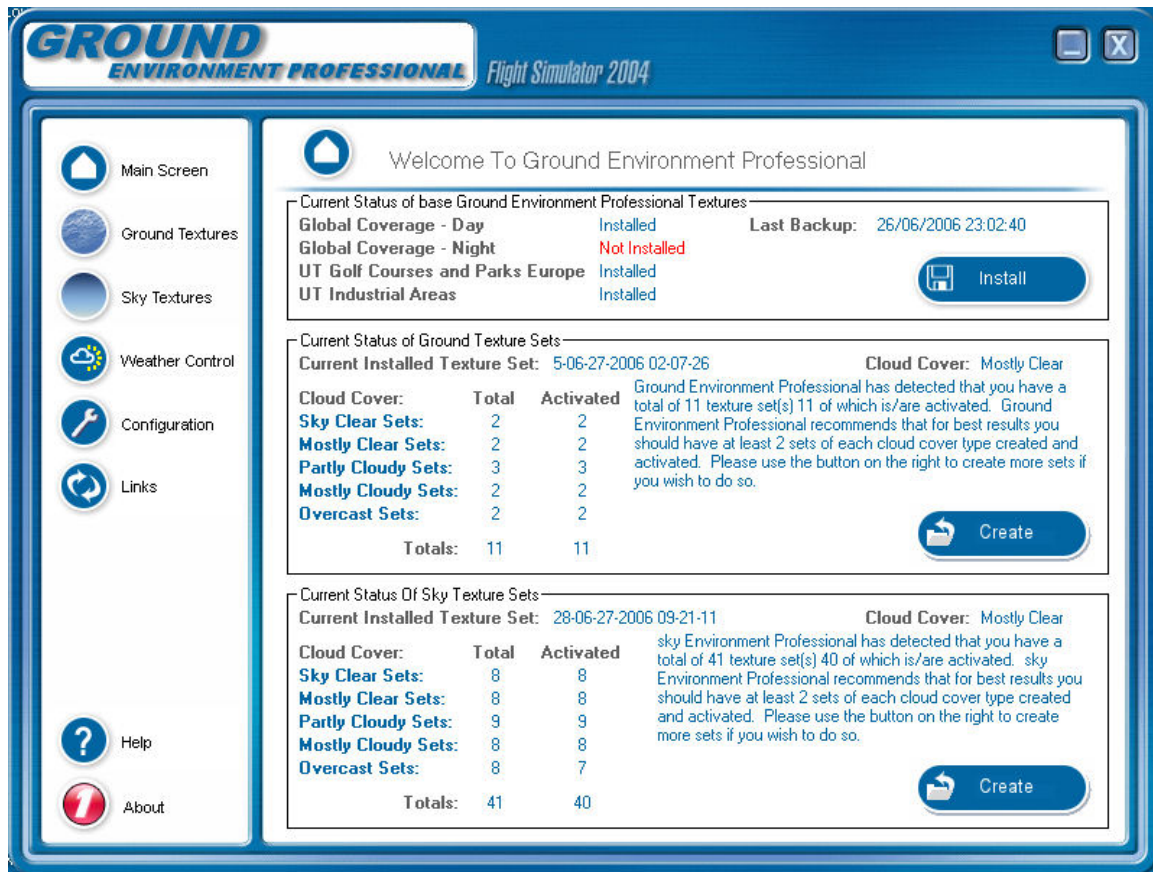
If you select the checkmark box then Ground Environment Professional will start Flight Simulator and minimise to the task bar.

Enjoy your flight!

Main Screen

Ground Environment Professional - Main Screen

The Ground Environment configuration screen is where you will be able to view the full status of Ground Environment Professional at a glance.



On this screen you have all the information about the current status of Ground Environment Professional.

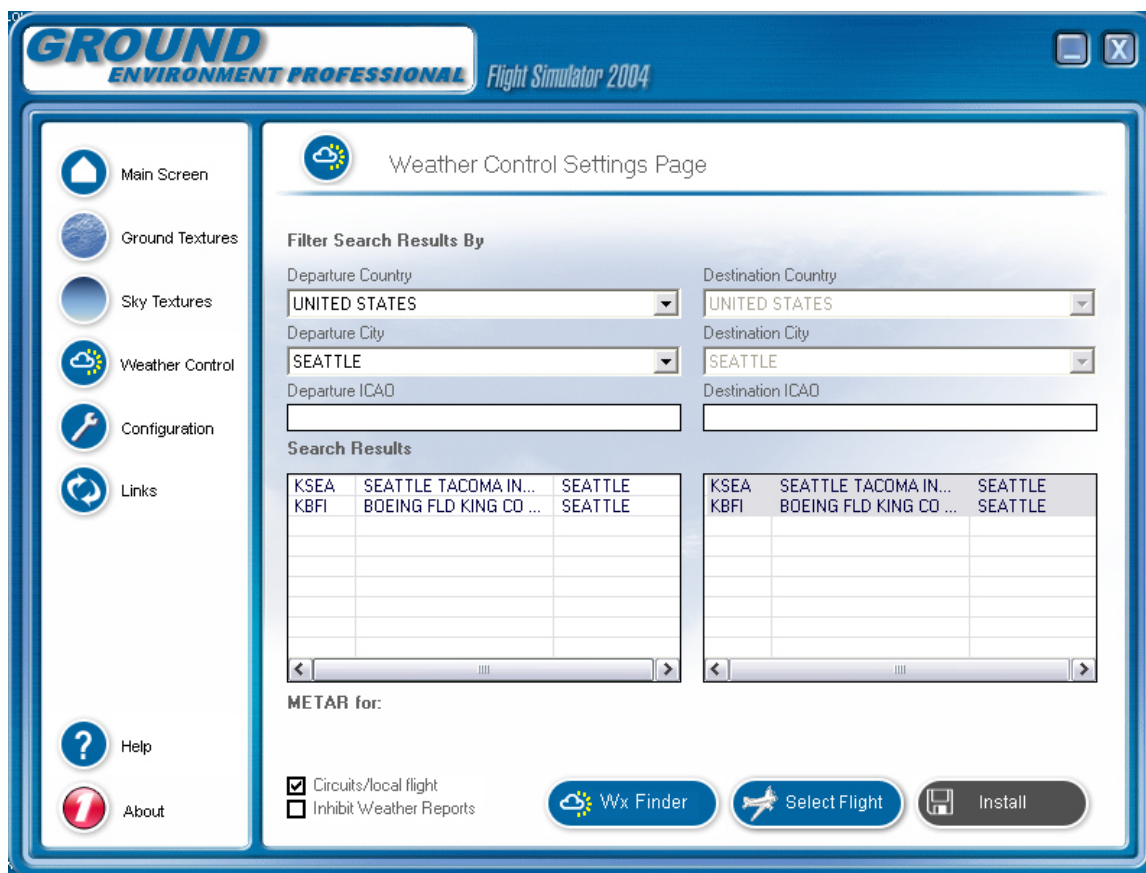
The first frame is the information about the base textures and the backup status. Anything in red is not installed or has not been action yet. To install any of the base textures not installed select the install button on the right hand side of the frame and you will be taken to the configuration screen where you can carry out any of the base operations required to give Ground Environment Professional a base to work with.

The second frame is where all the information about your Ground Texture Sets that have been created. Any items in red indicate a low level of creation and it would be a good idea to create some more ground texture sets in those areas to enable Ground Environment Professional to give a wide variety of looks for each of the cloud cover conditions that you would encounter in Flight Simulator. This frame also displays the currently installed texture set as well as the cloud cover type that it was customised for. To create more texture sets from here just click the Create button and you will be presented with the Create Texture Sets screen.

The third frame is where all the information about your Sky Texture Sets that have been created. Any items in red indicate a low level of creation and it would be a good idea to create some more sky texture sets in those areas to enable Ground Environment Professional to give a wide variety of looks for each of the cloud cover conditions that you would encounter in Flight Simulator. This frame also displays the currently installed texture set as well as the cloud cover type that it was customised for. To create more texture sets from here just click the Create button and you will be presented with the Create Texture Sets screen.

Ground Environment Professional - Weather Control Screen

The Weather Control screen is where you will configure the settings for your flight so that Ground Environment Professional can install the most appropriate texture sets for the weather conditions of your flight.



This page is split into two areas for your flight. The left side is for your departure airport and the right side is for your destination airport. These are similar to the screen within flight simulator.

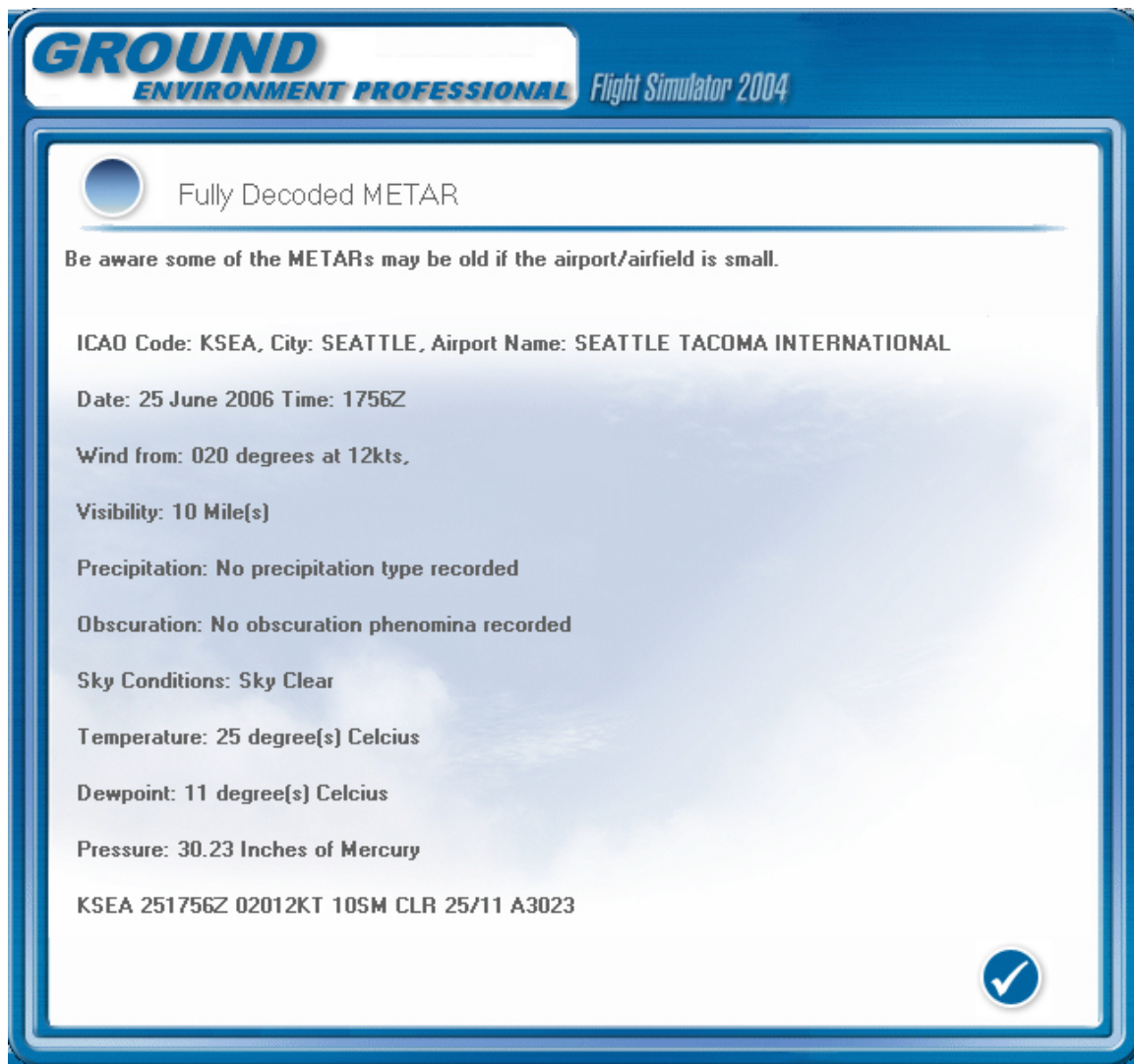
The following details are for the departure side of the screen but they are just the same for the destination side of the screen.

Select the Country from the top combo box and the City Combo box will be populated with the cities of that Country. You can then select the City you require from the City combo box and a list of airports will appear in the list below the filter text box. You can also filter the list by entering an ICAO code in the ICAO text field. As you enter the letters in the ICAO field the list of airports will reduce as they are filtered from the system.

Once the airport you require is visible in the list you must select it for it to be activated.

The first time you use Ground Environment Professional it will retrieve the current cycle from the NOAA web site and download it. Ground Environment Professional will then remove all the duplicate METARs from the file and decode them. At this point it will store the decoded METAR in the database. From this point onwards you will be able to choose whether you wish to download a fresh METAR cycle from NOAA or load the data that is in the database. If you are using Ground Environment Professional and the cycle has changed (i.e. moved into the next cycle) then Ground Environment Professional will ask if you wish to update the data or continue using the current data.

At this point a fully decoded METAR will appear for the airport selected giving you the most comprehensive information that is available to date. This will also be an invaluable tool for those of you wishing to learn what each part of a METAR means. You will see each item in plain english and also the METAR at the bottom of the screen so that you can learn to decode METARs your self in the future when you see them. You can prevent this screen from appearing by checking the Inhibit Weather Reports checkbox. If this is checked then just the METAR string is retrieved and placed in the METAR label so you can view the METAR string.



Click the check mark to close this window. Once the window has closed you will notice that the 'Install' button is enabled. This means that Ground Environment has enough information to be able to make a texture set selection and is ready to install the Ground and Sky Texture sets to match the weather conditions of the decoded METAR.

If you wish to carry out a flight that is not just in the local vicinity you need to remove the check mark from the Circuits/Local Flight check box this will then allow you to select your destination details from the right side of the screen.

Once you have selected a destination and clicked on the 'Install' button, Ground Environment Professional will ask you if you wish to add any waypoints to your flight. Adding waypoints will not build you a flight plan for FS9. The waypoints are en-route airports where Ground Environment Professional can obtain weather information to make a more accurate choice of the Textures to install

Ground Environment Professional will give you an option to install Texture sets or not before launching Flight Simulator. You can decide whether Flight Simulator is opened at the end of the process which will enable you to change your mind at any time. Once Flight Simulator is launched Ground Environment Professional will minimise to the task bar.

GROUND

ENVIRONMENT PROFESSIONAL

Flight Simulator 2004

Select weather phenomena you require

Select Precipitation

Precipitation Type
Thunderstorm

Intensity
Any

Select Cloud Cover

Cloud Cover Type
Overcast

☐ Cumulus
☒ Cumulonimbus
☐ Towering Cumulonimbus

Select Obscuration Type

Obscuration Type
Any

Filter by ICAO:
 Max results: 25

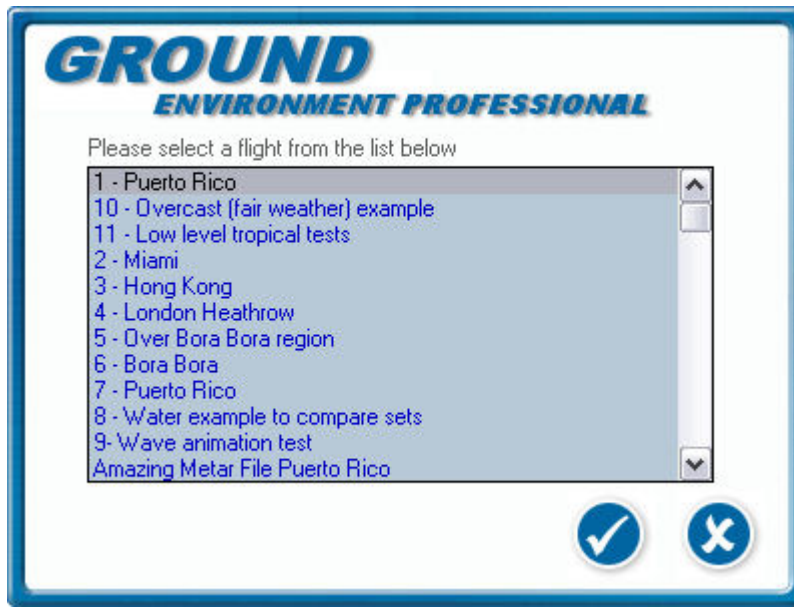
☒ Departure Airport ☐ Destination Airport

ETAR 251755Z 21006KT 6000 -TSRA BR FEW040CB SCT120 OVC250 21/17 A2983 RMK PK WND 26018/16...
ETND 191520Z 28003KT 9999 TS FEW010 BKN030CB OVC160 22/19 Q1011 BLU
FOOR 250800Z / / / / / 6000 TSRA BKN003 SCT010CB OVC100 20/20 Q1014
KATL 251836Z 03013KT 3SM +TSRA BR SCT033CB OVC044 22/21 A2997
KFBG 251827Z 13002KT 5SM -TS RA BR BKN007CB OVC045 22/22 A3001 RMK OCNL LTGICCG OHD TS O...
KMCF 251840Z 25007KT 7SM -TSRA BKN030CB OVC080 28/24 KATL 251836Z 03013KT 3SM +TSRA BR SCT033CB OVC
KMGE 251843Z VRB04KT 5SM -TSRA BR FEW005 SCT010CB BKN030 OVC080 21/20 A2998 RMK OCNL LT...
KPOB 251814Z 16008KT 130V200 3SM -TSRA FEW003 BKN012CB OVC030 23/22 A3001 RMK OCNL LTGIC...
KRFD 251754Z 00000KT 10SM -TSRA FEW027 BKN046 OVC060CB 22/17 A3004
KTPA 251836Z 00000KT 6SM -TSRA FEW015 SCT032CB BKN070 OVC250 26/23 A2985
SAAR 240800Z 14004KT 3000 TSRA BKN020 OVC030 FEW050CB 13/12 Q1010
SARF 251800Z 23010KT 9999 TS SCT020 FEW050CB OVC100 21/19 Q1009 RERA
UNAA 251800Z VRB02MPS 9999 -TSRA OVC016CB 19/18 Q1008 TEMPO TSRA RMK QFE733 200//65
USRR 251800Z 15004G07MPS 5000 -TSRA BKN033CB OVC103 19/17 Q1008 TEMPO 3000 TSRA SCT007 O...

You can search for almost any weather condition just by making selections from the combo boxes and check boxes on the form. Each time you make a selection the list will be filtered down. You can select the maximum results that you require and can also filter the results by entering partial (or full) ICAO codes.

When you have finished with the Wx Finder you can just close the screen by selecting the cross button or if you wish to use this weather information then select departure or destination option button and then double click on the ICAO in the list (or select the item and Click the check mark button) and you will be taken back to the Weather Control screen where a fully decoded METAR will be shown for the airport selected. Also the departure or destination airport details will be populated on the Weather Control screen for you.

The Select Flight button is used to select any of your saved flights (Ground Environment Professional loads all saved flights as it opens). When you select the Select Flight button you will be presented with the following screen.

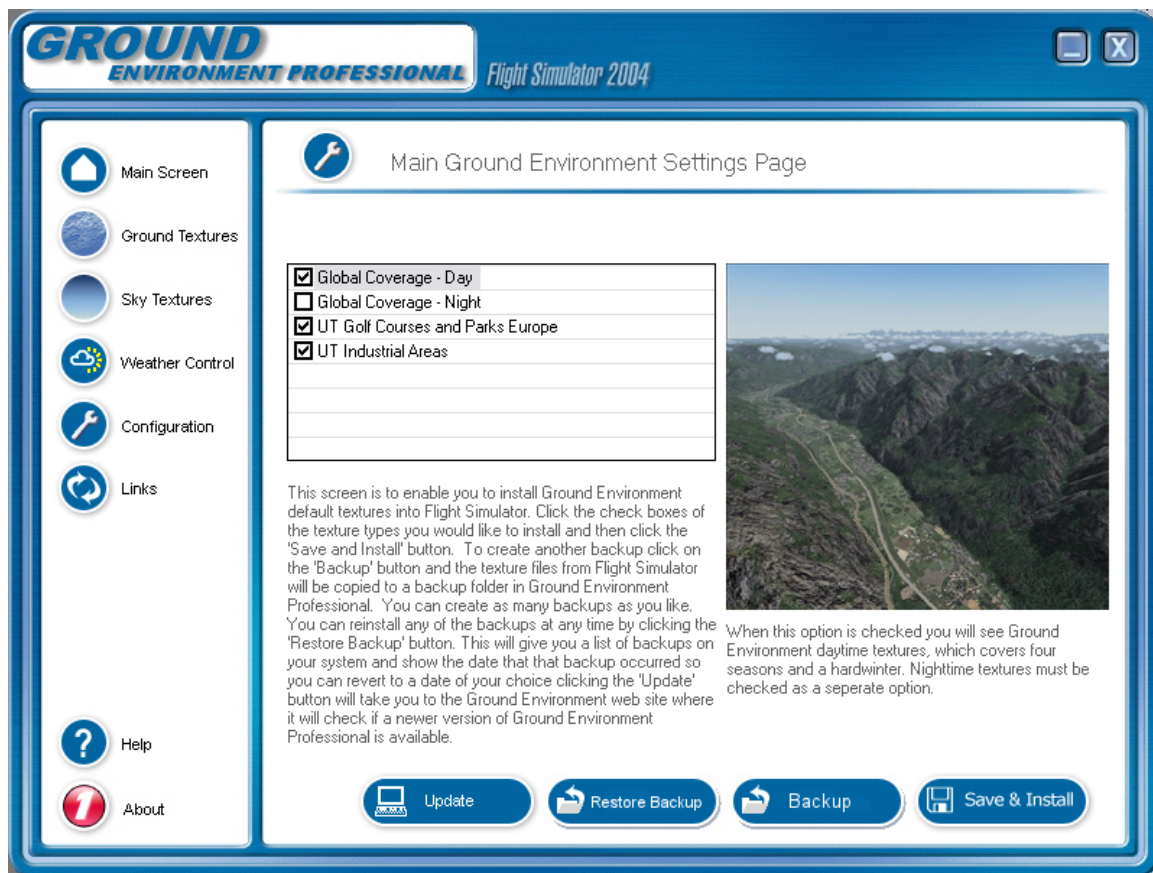


Double clicking on a flight (or selecting the flight from the list and then clicking the checkmark button) will launch Flight Simulator and load the flight. At this point Ground Environment Professional will minimise to the task bar.

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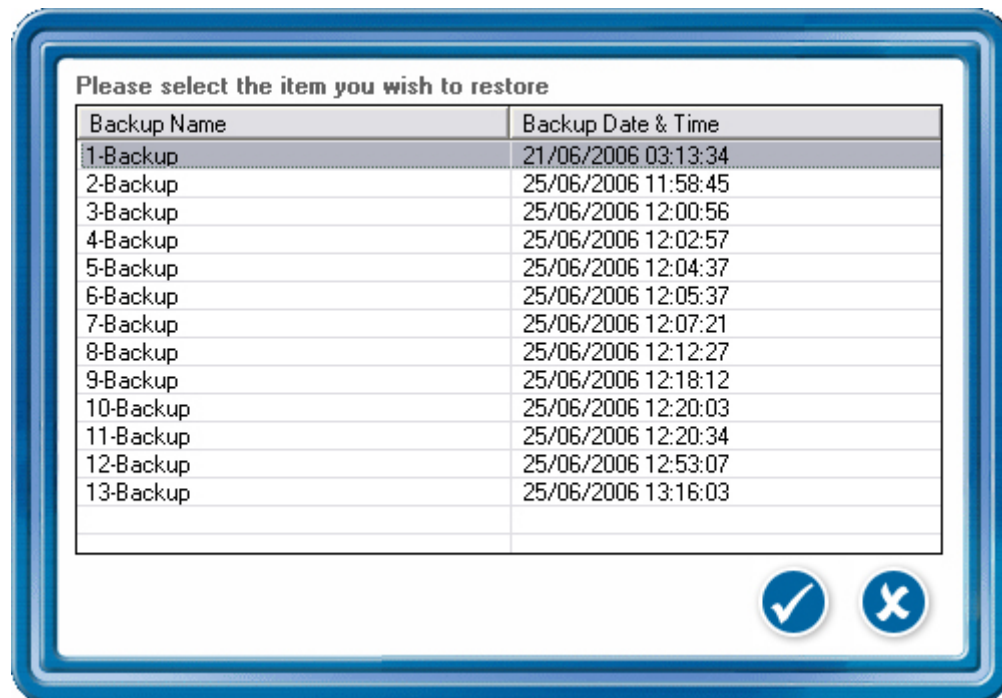
Ground Environment Professional - Configuration Screen

The Ground Environment configuration screen is just like the version one main screen which allows you to customize which elements of Ground Environment you install into Flight simulator.



On this page there is 1 list, 1 image, 1, label and 4 buttons.

1. The list contains the installation options from Ground Environment Textures (Day) to Ultimate Terrain Europe Industrial Areas. Multiple selections can be made here.
2. The image contains an image previewing the selected option from the list
3. The label contains a description of the option selected from the list.
- 4 The first button 'Save & Install' will install the options selected from the list to your Flight Simulator installation.
5. The second button 'Backup' will create backups of your FS Textures to a backup folder within Ground Environment Professional. When you run Ground environment Professional it will automatically create and initial backup of your Flight Simulator textures. You can create as many backups as you like and they will all be unique and have a time stamp attached to them
6. The third button 'Restore Backup' will allow you to select a backup to restore into Flight Simulator. When you click this button you will be presented with a screen from where to select the backup you wish to restore.

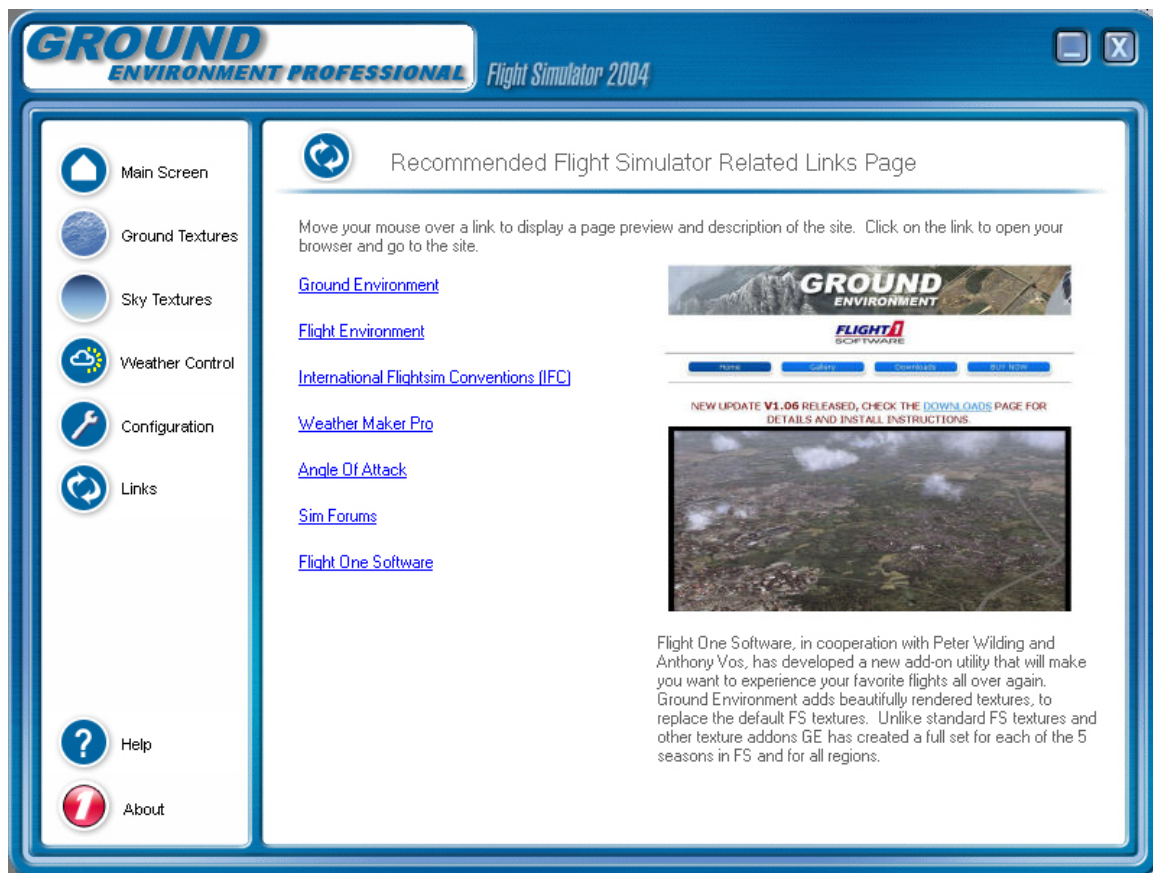


To restore a backup just select an item from the list and then click on the checkmark button. To return Flight Simulator to the pre Ground Environment state please select the first backup in the list

7. The fourth button will take you to the Ground Environment web site where it will check to see if a newer version is available for you to download.

Ground Environment Professional - Links Screen

On the Ground Environment Links screen you will find links to ground breaking products and also to our support forum, allowing you to obtain support for your Flight One product from within Ground Environment itself.



Hover your mouse over any one of the links on the left hand side of the screen and you will see a preview of the web site and a full description of the services provided by that company.

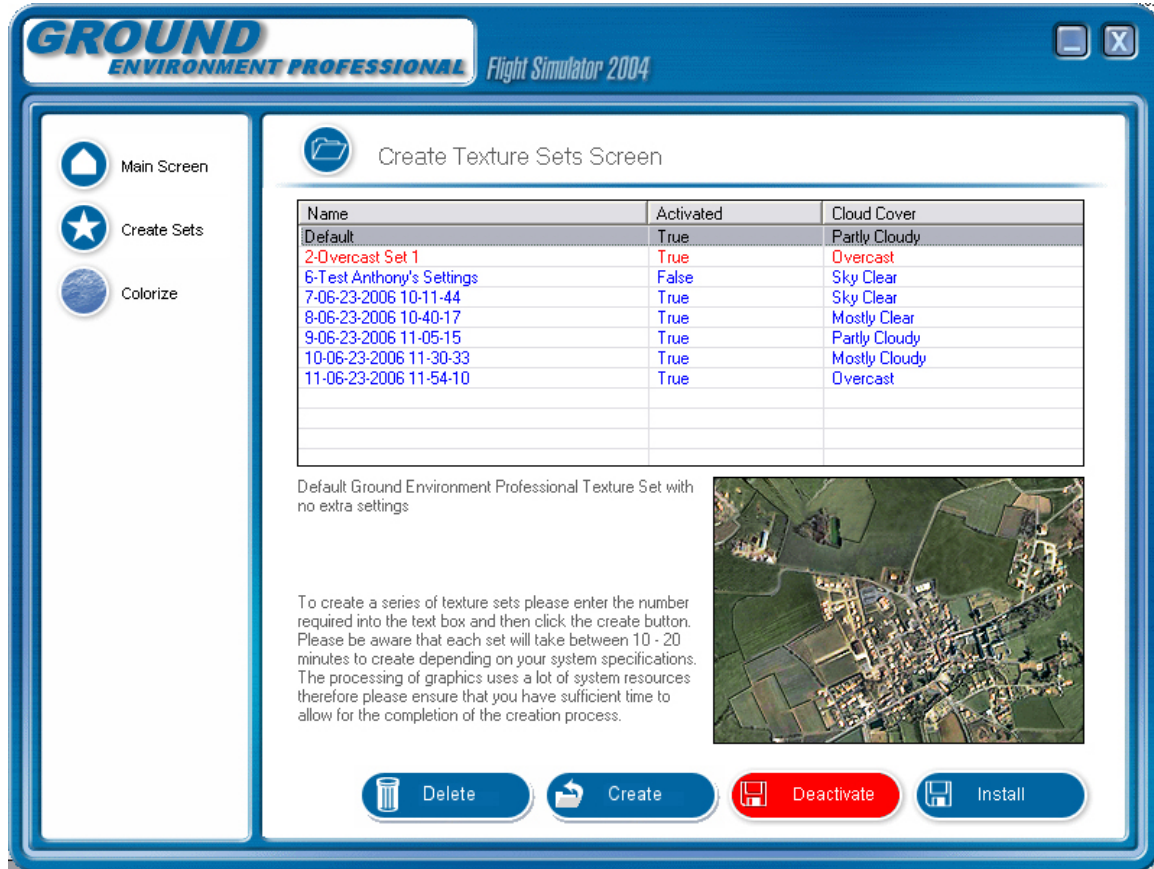
Click on any of the links and your web browser will be opened and directed to that site.

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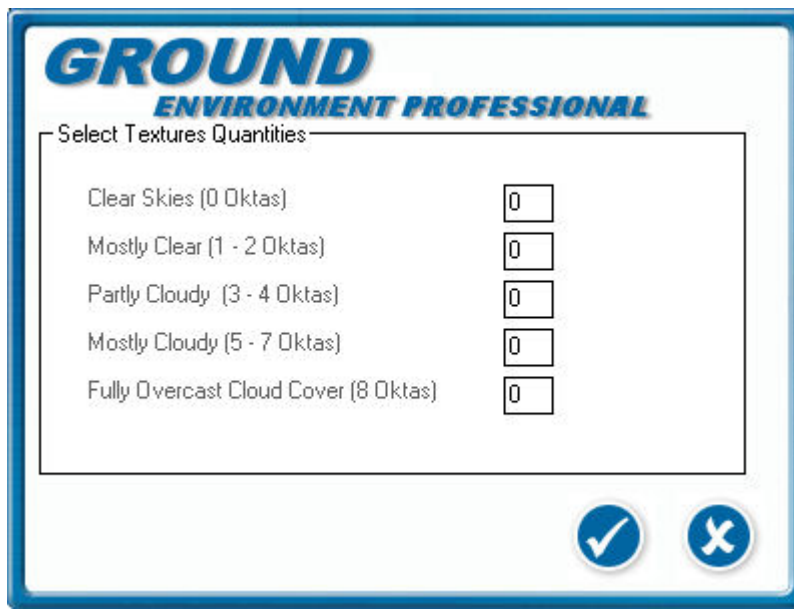
Ground Screen

Ground Environment Professional - Create Texture Sets Screen

The Ground Environment Create Texture Sets screen is where most users will wish to create customised textures sets for Flight Simulator. This screen is also the first screen you will see when you select the Ground Textures button on the Main Screen



On this screen you will be able to automatically generate as many texture sets as you wish dependant on the selection you make from the Select Texture Sets screen. To create texture sets you just click on the Create button and the following screen appears.



GROUND ENVIRONMENT PROFESSIONAL

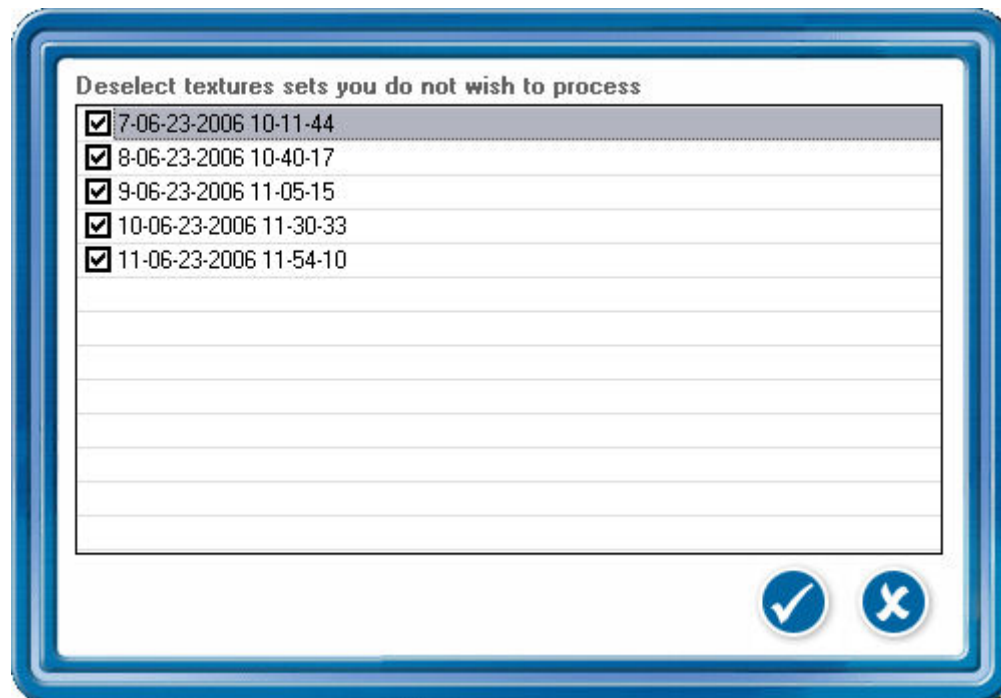
Select Textures Quantities

Clear Skies (0 Oktas)	<input type="text" value="0"/>
Mostly Clear (1 - 2 Oktas)	<input type="text" value="0"/>
Partly Cloudy (3 - 4 Oktas)	<input type="text" value="0"/>
Mostly Cloudy (5 - 7 Oktas)	<input type="text" value="0"/>
Fully Overcast Cloud Cover (8 Oktas)	<input type="text" value="0"/>

✓ ✕

From here you select which cloud conditions you require Ground Environment Professional to create customised texture sets for. Next to each cloud condition enter the number of sets required per cloud condition. Select the checkmark button and Ground Environment Professional will then create those texture sets for you. Be aware that each set takes about 20 minutes to create so ensure that you have enough time to dedicate to the creation process. Each texture set is also approximately 100mb.

You can also delete any texture sets that you no longer require by selecting the Delete button. If you wish to just remove the textures to conserve disc space but keep the settings in case you wish to use them at a later date you can select the Deactivate button and all the textures will be deleted but the settings will remain in the database. You can reactivate them at any time by selecting the Activate button. Ground Environment Professional will then create the texture set again from the saved settings. In all these cases Ground Environment has the ability to process multiple texture sets. Just select each texture set that you wish to amend whilst holding down the CTRL button the keyboard. Once you have done this select the function you require from the buttons on the screen and a screen will be presented for you to view the selected texture set items



Deselect textures sets you do not wish to process

<input checked="" type="checkbox"/>	7-06-23-2006 10-11-44
<input checked="" type="checkbox"/>	8-06-23-2006 10-40-17
<input checked="" type="checkbox"/>	9-06-23-2006 11-05-15
<input checked="" type="checkbox"/>	10-06-23-2006 11-30-33
<input checked="" type="checkbox"/>	11-06-23-2006 11-54-10
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

✓ ✕

Remove the check mark from any texture sets you do not want to process and select the checkmark button to continue to carry out the selected action or select the crossmark button to cancel the action.

If you wish to install any of the sets from this screen just select the install button and that texture set will be installed, at this point Ground Environment Professional will ask you if you wish to start Flight Simulator, if you select yes then Ground Environment Professional will launch Flight Simulator on completion of installing the Texture Set and then minimise Ground Environment Professional to the task bar.

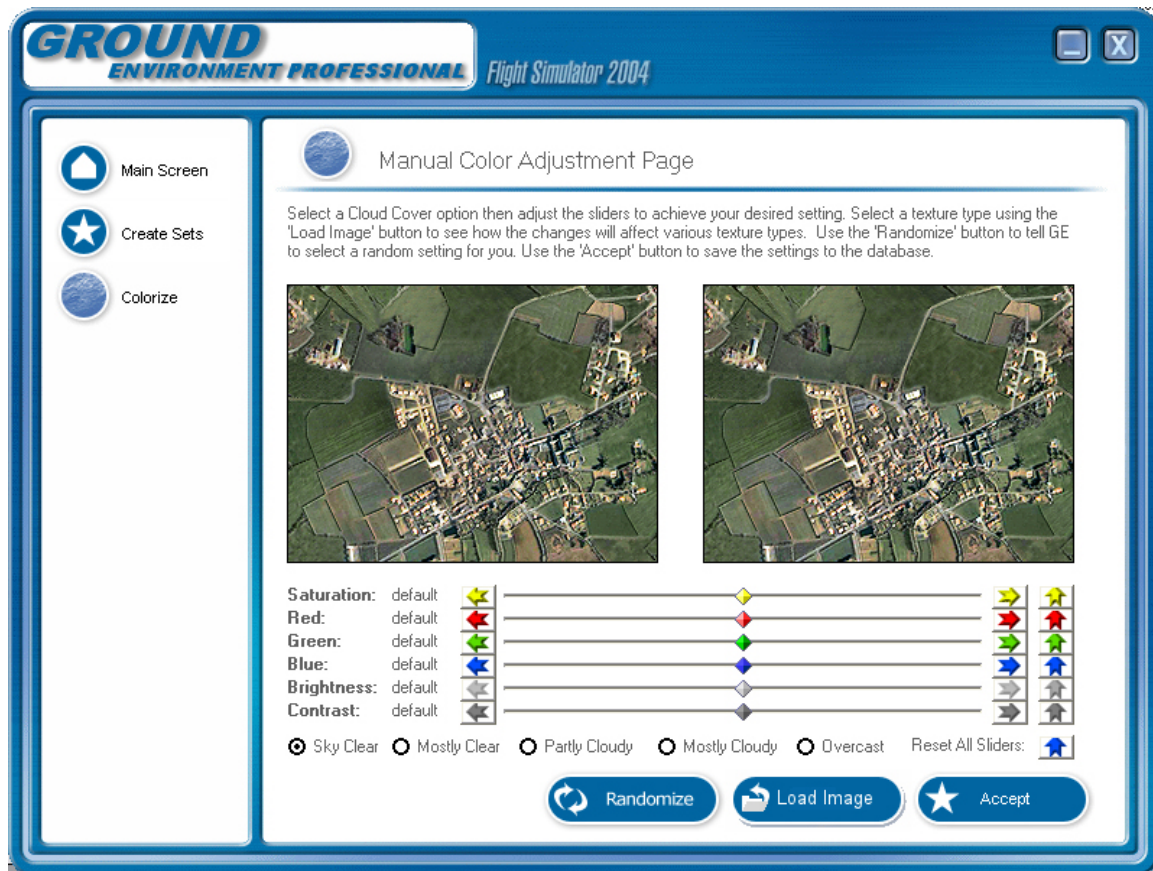
On the left of the screen there are four buttons:

1. Main Screen - This will return you to the Main Ground Environment Professional Screen
2. Create Sets - This will bring you back to this screen.
3. Colorize - This will take you to the colorize screen where you can create advance settings for texture creation. These settings are stored here after creation in a non activated state so that you can activate them at a later time.

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Ground Environment Professional - Ground Colorize Screen

The Ground Colorize Screen is where users can use advanced techniques for coloring Ground Environment Professional Textures



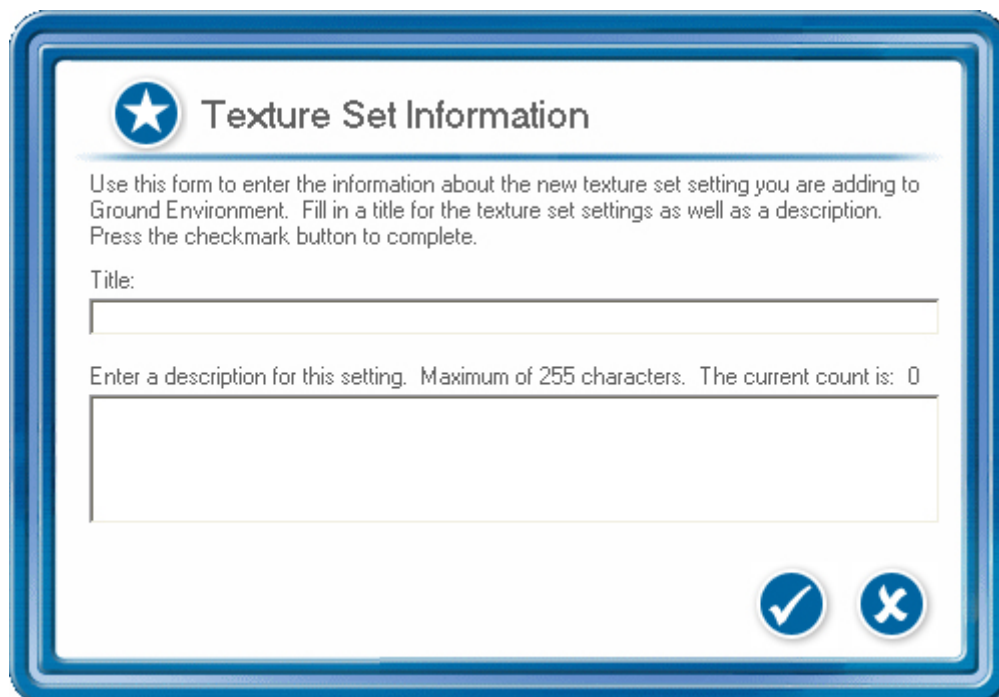
You are presented with two initial images. The left image is used as a control and the right image is used to display the results of changing color settings.

There are six sliders on this screen which each have a separate function

1. The first is the saturation slider which will increase or decrease the color levels of each pixel on the image.
2. The second slider is for increasing or decreasing the red hues on the image.
3. The third slider is for increasing or decreasing the green hues on the image.
4. The fourth slider is for increasing or decreasing the blue hues on the image.
5. The fifth slider is for increasing or decreasing the brightness levels on the image.
6. The sixth slider is for increasing or decreasing the contrast levels on the image.

There are five option buttons below the sliders which will allow you to set the cloud cover value that you wish these settings to be saved under

The Accept button is used to save these settings to the database they will appear in the Create Texture Sets Screen but will not be activated (texture sets will not be created) until activated on that screen. This is an easy way of creating many different settings without having to create a full set each time. Once you select the Accept button you will be presented with the following screen



Texture Set Information

Use this form to enter the information about the new texture set setting you are adding to Ground Environment. Fill in a title for the texture set settings as well as a description. Press the checkmark button to complete.

Title:

Enter a description for this setting. Maximum of 255 characters. The current count is: 0

☒ ☐

You will enter the name you require for this setting and also a description (Max 255 Characters) you then select the check mark to save the settings to the database.

The Load Image screen will allow you to select any of the Ground Environment Textures to place into the picture boxes on the screen so that you can preview what the settings will look like on different Ground Environment textures. When you select this button you will be presented with the following screen



GROUND ENVIRONMENT PROFESSIONAL

Select the season that you wish to customize—

☒ Spring ☐ Summer ☐ Fall ☐ Winter

Select the texture type that you wish to customize—

☐ Cities ☐ Crops
☐ Forests ☐ Shrubs and Trees
☒ Grasslands ☐ Rocks
☐ Swamps ☐ Red Textures (Central Australia/S'w USA)
☐ Deserts ☐ UT Europe Parks_Golf Courses
☐ Rural Areas ☐ UT Europe Industrial Areas

☒ ☐

Select the season you require and the texture type and then the check mark, you will then be taken back to the Colorize screen and the texture will be displayed in the picture boxes. This facility will enable you to maintain a balanced setting for all the Ground Environment textures.

The Randomize button will randomly select color settings for you based on the cloud cover set by the option buttons, You can select the Randomize button as many times as you like and when you find a setting that you like you can either accept it to the database or fine tune it using the sliders before accepting it.

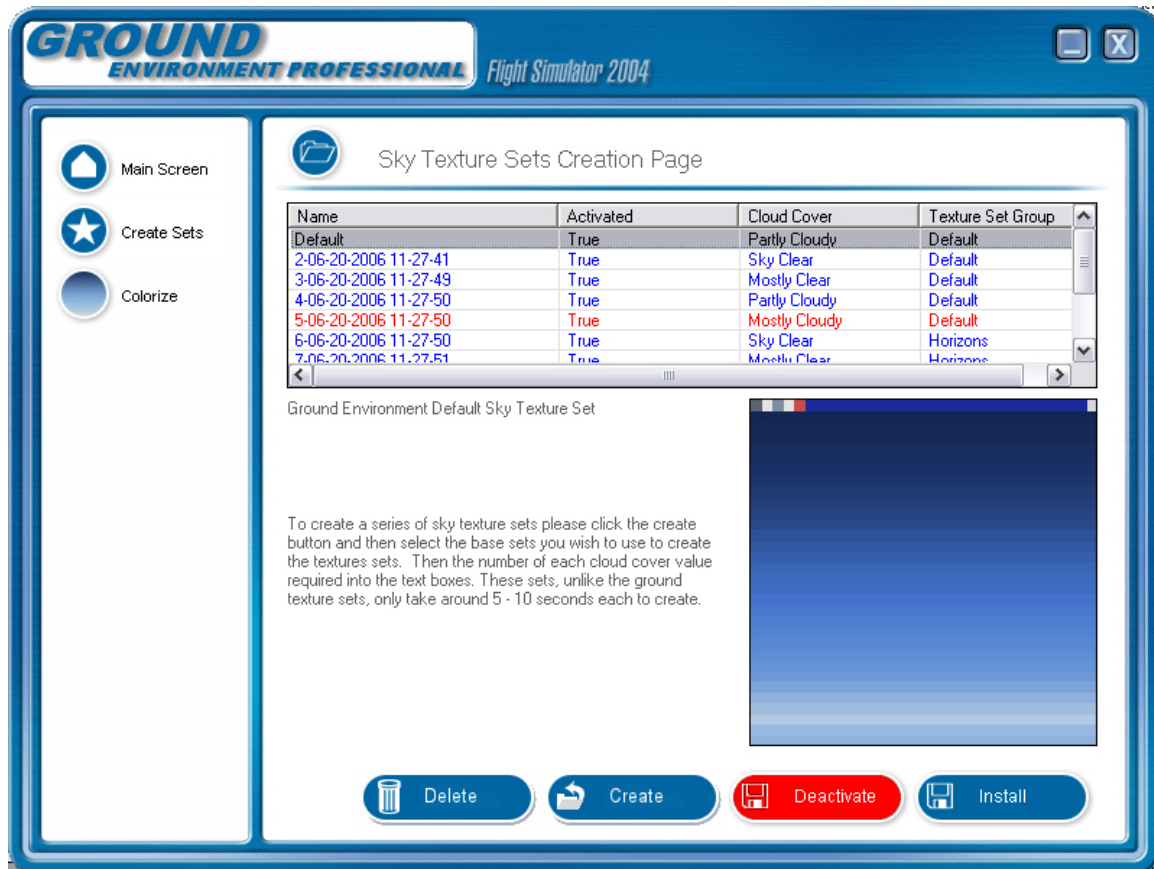
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Sky Screen

Ground Environment Professional - Create Sky Texture Sets Screen

If you are using FE, install FE sky textures before running GE Pro. We will at the first opportunity be updating the programs to integrate this function in a superior way. If you are currently happy with your FE settings and cloud selections GE PRO will only make changes to the sky textures and will not in any way alter the water or clouds

The Ground Environment Create Sky Texture Sets screen is where most users will wish to create customised sky textures sets for Flight Simulator. This screen is also the first screen you will see when you select the Sky Textures button on the Main Screen



On this screen you will be able to automatically generate as many texture sets as you wish dependant on the selection you make from the select texture sets screen. To create texture sets you just select the create button and the following screen appears.

GROUND
ENVIRONMENT PROFESSIONAL

Select Texture Set Group

☒ Default ☐ Horizons ☐ Sunny ☐ Tropical

Please enter how many of each of the above texture types you require

Select Cloud Cover

Clear Skies (0 Oktas)

Mostly Clear (1 - 2 Oktas)



Partly Cloudy (3 - 4 Oktas)

Mostly Cloudy (5 - 7 Oktas)

Please be aware Overcast are special textures and only used for overcast conditions and will therefore have their own count

☐ Overcast

Overcast (8 Oktas)

From here you select which cloud conditions you require Ground Environment Professional to create customised texture sets for and also which of the base sky texture sets you require that they are created from. Next to each cloud condition enter the number of sets required per cloud condition. Select the check mark button and Ground Environment Professional will then create those texture sets for you. Each set takes about 20 seconds or less to create so as you can see sky textures are created very quickly due to the smaller size of the file and also the number of files processed is much less. Be aware that the Overcast base set is a special set and will be the only set that can create overcast conditions.

You can also delete any texture sets that you no longer require by selecting the delete button. If you wish to just remove the textures to conserve disc space but keep the settings in case you wish to use them at a later date you can select the deactivate button and all the textures will be deleted but the settings will remain in the database. You can reactivate them at any time by selecting the activate button. Ground Environment Professional will then create the texture set again from the saved settings. In all these cases Ground Environment has the ability to process multiple files. Just select each texture set that you wish to amend whilst holding down the CTRL button on the keyboard. Once you have done this select the function you require from the buttons on the screen and a screen will be presented for you to view the selected texture set items

Deselect textures sets you do not wish to process



☒ 7-06-23-2006 10-11-44

☒ 8-06-23-2006 10-40-17

☒ 9-06-23-2006 11-05-15

☒ 10-06-23-2006 11-30-33

☒ 11-06-23-2006 11-54-10

Remove the check mark from any texture sets that you don't want the actions applied to and select the checkmark button to continue to carry out the selected action or select the crossmark button to cancel the action.

If you wish to install any of the sets from this screen just select the install button and that texture set will be installed, at this point Ground Environment Professional will ask you if you wish to start Flight Simulator, if you select yes then Ground Environment Professional will launch Flight Simulator on completion of installing the Texture Set and then minimise Ground Environment Professional to the task bar.

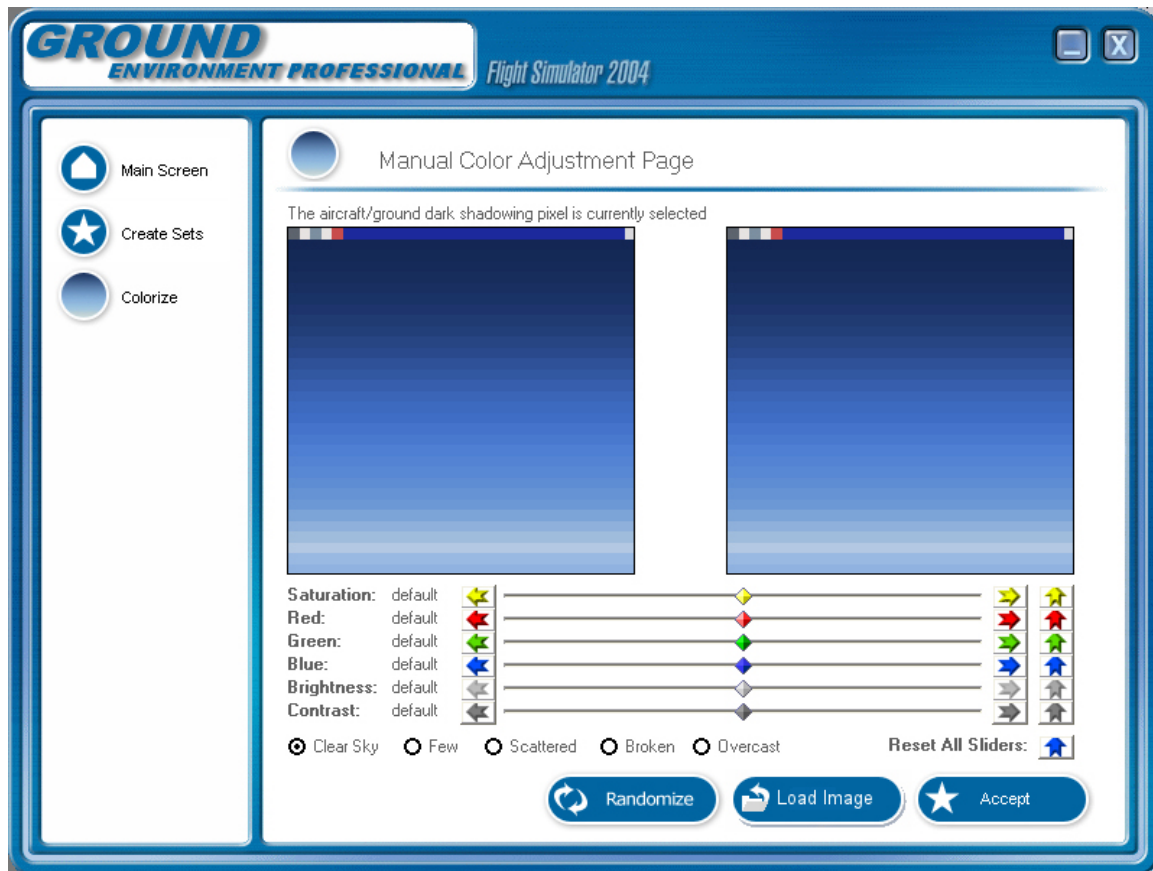
On the left of the screen there are four buttons:

1. Main Screen - This will return you to the Main Ground Environment Professional Screen
2. Create Sets - This will bring you back to this screen.
3. Colorize - This will take you to the colorize screen where you can create advance settings for texture creation. These settings are stored here after creation in a non activated state so that you can activate them at a later time.

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Ground Environment Professional - Sky Colorize Screen

The Sky Colorize Screen is where users can use advanced techniques for coloring Ground Environment Professional Sky Textures



You are presented with two initial images. The left image is used as a control and the right image is used to display the results of changing color settings.

There are six sliders on this screen which each have a separate function

1. The first is the saturation slider which will increase or decrease the color levels of each pixel on the image.
2. The second slider is for increasing or decreasing the red hues on the image.
3. The third slider is for increasing or decreasing the green hues on the image.
4. The fourth slider is for increasing or decreasing the blue hues on the image.
5. The fifth slider is for increasing or decreasing the brightness levels on the image.
6. The sixth slider is for increasing or decreasing the contrast levels on the image.

The left hand image is where you will select which part of the sky you are coloring as there are around ten different items on the sky textures that are customizable and each of the pixel areas have a different function when it comes to coloring the Flight Simulator Environment. The list of what particular function certain pixels has is below:

Top Row:

1. Ground/Aircraft Dark Shadowing
2. Ground/Aircraft Light Shadowing
3. Clouds Dark Shadowing
4. Clouds Light Shadowing
5. Water Dark Shadowing
- 6-31. Water Main Color (This is very subtle)
32. Water Light Shadowing

Main Body: (Row 2 to 30 top to bottom)

- 1 - 32 Main Sky Color

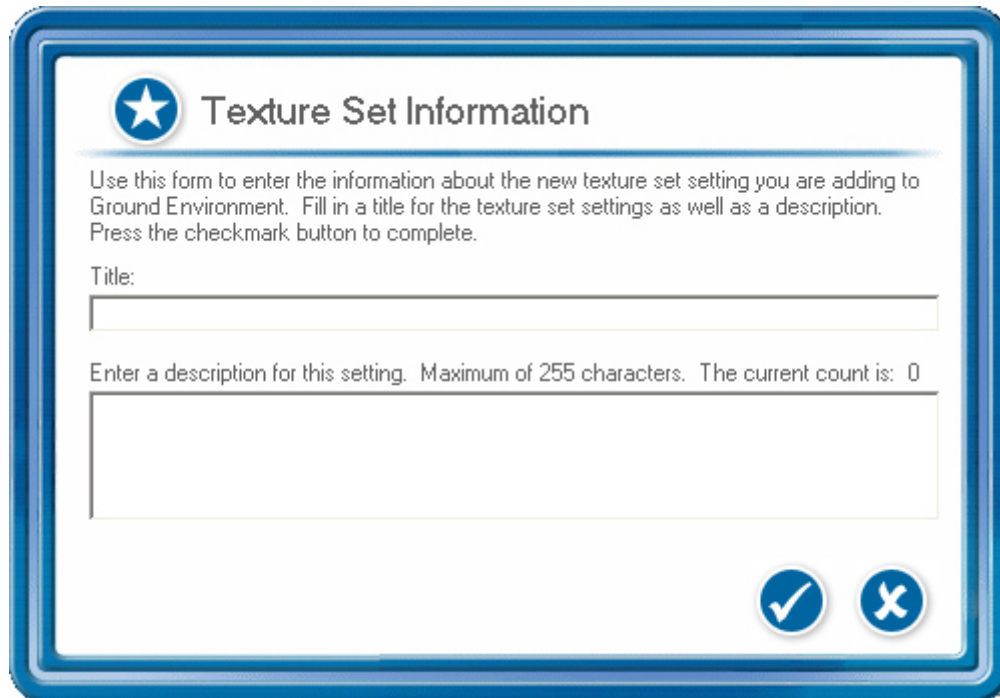
Row 31
1 - 32 High Horizon Coloring

Row 32
1 -32 Low Horizon Coloring

Each of these pixels are customizable and selected individually (there is a tool tip that tells you what you are over when the mouse hovers over a certain pixel) There is also a label above the Source (left) image that tells you which pixel you are currently customizing.

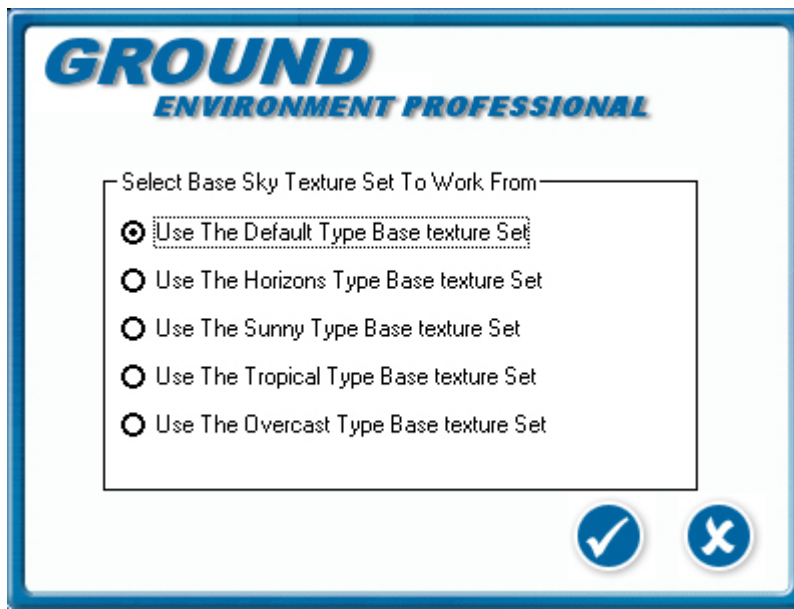
There are five option buttons below the sliders which will allow you to set the cloud cover value that you wish these settings to be saved under

The Accept button is used to save these settings to the database they will appear in the Create Texture Sets Screen but will not be activated (texture sets will not be created) until activated on that screen. This is an easy way of creating many different settings without having to create a full set each time. Once you select the Accept button you will be presented with the following screen

A screenshot of a 'Texture Set Information' dialog box. The dialog has a blue border and a title bar with a star icon. Inside, there is a text area for a title and a larger text area for a description. The description area has a character count of 0. At the bottom right, there are two circular buttons: one with a checkmark and one with an 'X'.

You will enter the name you require for this setting and also a description (Max 255 Characters) you then select the base Sky Texture set that you wish the settings to be used with. Finally you select the check mark to save the settings to the database.

The Load Image screen will allow you to select any of the sky base texture sets on which the settings from the sliders or Randomize button will be applied to . When you select this button you will be presented with the following screen



Select the case texture set that you wish to use as the template for your texture set settings and then click the check mark, where you will then be taken back to the Colorize screen and the texture will be displayed in the picture boxes.

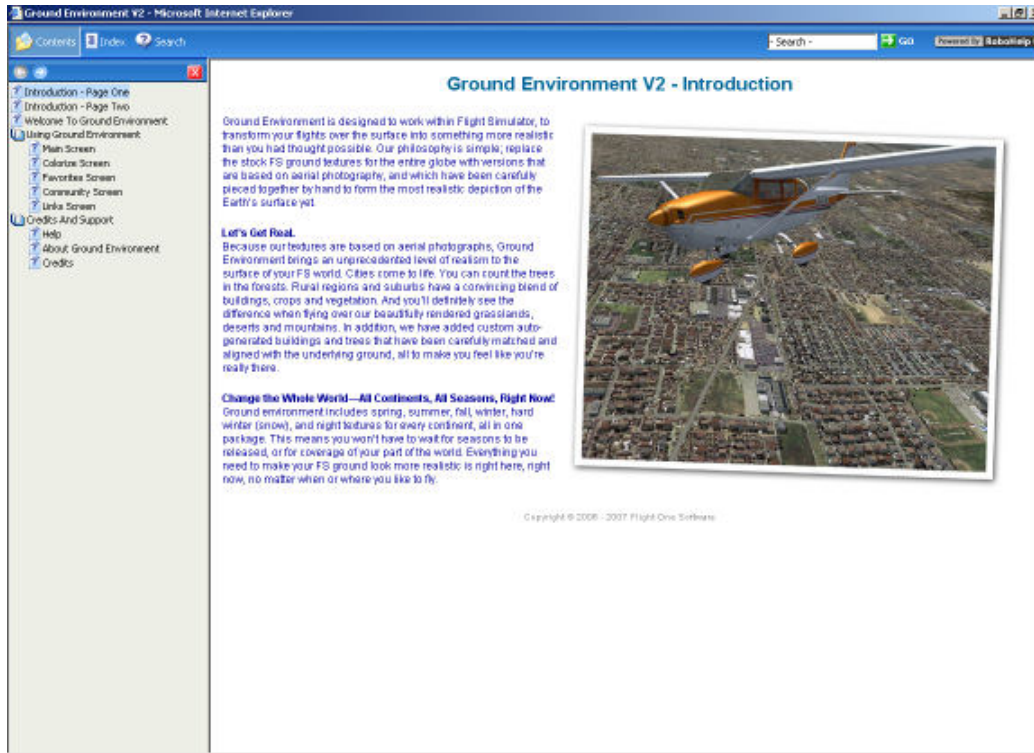
The Randomize button will randomly select color settings for you based on the cloud cover set by the option buttons, You can select the Randomize button as many times as you like and when you find a setting that you like you can either accept it to the database or fine tune it using the sliders before accepting it. The Randomize button is only randomizing the currently selected pixel so you need to be aware of which pixel you are customizing. This information is on the label above the Source (left) image.

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Credits And Support

Ground Environment Professional - Help

In Ground Environment help you will find all the information you need to enable you to use Ground Environment V2 to it's full potential.



Just click on the Help button on the left hand side of the Ground Environment Interface and the help system will open in your browser. You may get the following warning "To Help protect your security, Internet Explorer has restricted this file from showing active content that could access your computer. Click here for options". Just click on the information bar and select "Allow Blocked Content" and the help system will display correctly.

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About Ground Environment Professional

The About Ground Environment screen will give you the version number of your current installation of Ground Environment plus the name and order number of the registered user.



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Ground Environment Professional - Credits

Developers:

Peter Wilding
Anthony Vos
Carl Hackman

Beta Testers:

Reed Stough
Jay Gardner
Ken Strohm
David Wilson-Okamura
Jan Tillung
Dominik Buszek
Feng Zhu
Kosta

Help File:

Carl Hackman

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