

Real Weather Connector (version 1.2)



What is this thing?

Thank you for purchasing Real Weather Connector by Sundog Software! Real Weather Connector (RWC) parses the raw METAR weather reports used by X-Plane, and works directly with SkyMaxx Pro 3.1.1 or newer to represent that weather as accurately as possible.

RWC works with X-Plane's built-in Real-World Weather option, and with any external weather engine that injects weather via X-Plane's metar.rwx file. It can be configured to work in the presence of other weather add-ons as well.

For the first time, RWC lets you visualize complex, distant weather systems and smoothly fly into them using SkyMaxx Pro's 3D clouds. No more "popping" as the weather changes, and the weather surrounding you might be different in every direction. You'll see cloud fronts appear on the distance, and fly into them realistically.

RWC also isn't bound by X-Plane's internal limitation of three cloud layers; the area surrounding you is broken up into hundreds of individual layers, each with their own cloud types, altitudes, and coverage amounts. The result is cloud systems that look much more realistic and natural.

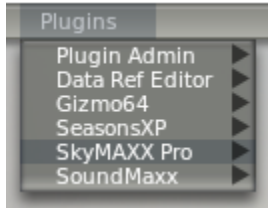
Getting Set Up

Real Weather Connector requires SkyMaxx Pro 3.1 or newer to be installed; it will not work without it. SkyMaxx Pro may be purchased at www.x-aviation.com.

If you're reading this, then you've probably already run RWC's installation application successfully! X-Aviation provides you with an installer app, and all you have to do is run it. The first time you fly with

RWC installed, you'll be prompted to authenticate your purchase using your X-Aviation account information.

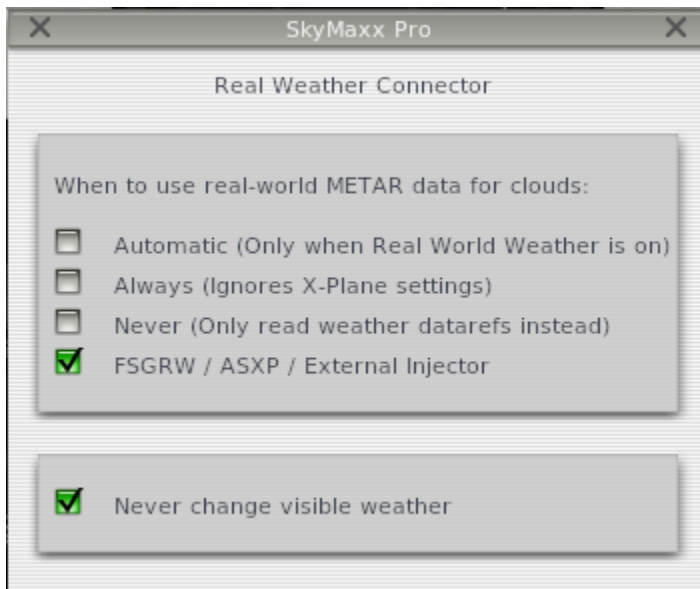
Once installed, you'll find a new "Real-World Weather" menu item in SkyMaxx Pro's configuration menu. Start by opening up SkyMaxx Pro from X-Plane's plugin menu:



Then, select "real-world weather":



...and, you should see this:



When changing these settings, you may need to wait a few seconds for them to apply. There are 4 modes of operation, and you need to understand how each one works:

Automatic: RWC will only be active when X-Plane's weather is set to "grab real weather from the net".

Use this setting if you fly with X-Plane's built-in real world weather. For most users, this is the best setting.

In this mode, if you set up X-Plane to automatically download METAR-based weather information from the Internet, RWC will use this detailed information to position clouds. When real weather is off in X-Plane, RWC will be automatically deactivated, and clouds will be placed using uniform cloud conditions specified in X-Plane's weather dialog instead.

X-Plane's real weather settings are found under X-Plane's Environment menu. Select the Weather screen, and select "grab real weather from the net" to ensure RWC has the information it needs. For more information on X-Plane's real world weather system, see <http://www.x-plane.com/?article=downloading-and-using-real-weather>

Always: RWC will always position clouds using downloaded METAR data.

Use this setting if you need to use an add-on that overrides X-Plane's weather with uniform weather conditions surrounding the plane (using datarefs,) but you still want the benefits of RWC. Examples include XSquawkBox (used with VATSIM), IVAO, NOAA Weather, and EFASS. As of this writing, these add-ons disable X-Plane's real world weather system, and inject uniform weather surrounding your plane that abruptly changes as you move.

The "Always" setting provides a work-around. In this mode, RWC ignores any cloud information coming from X-Plane or its add-ons, and instead downloads its own METAR data directly from NOAA to position the clouds with. This allows RWC to keep control of the clouds, while still using the other features of your add-ons (such as winds, turbulence, network flying, etc.)

Setting up specific cloud conditions via X-Plane's weather dialog will have no effect while RWC is in "Always" mode, so be sure to set RWC back to "Automatic" if you want the ability to disable real-world weather later.

Never: RWC is disabled

Use this setting if you need to temporarily disable RWC, or if you want to use an external dataref-based weather add-on in its intended form. In this mode, RWC will be disabled, and SkyMaxx Pro will instead position clouds using uniform weather conditions specified in datarefs.

For example, if you are flying on a network that synchronizes weather conditions, it might be more important to see the same weather conditions other pilots see, even if it is less detailed than what RWC can represent. You might want to disable RWC while flying on a network, and re-enable it while flying offline.

If your add-on disables X-Plane's real world weather system (most do), then RWC's "Automatic" setting will automatically disable RWC while your add-on is active anyhow.

FSGRW / ASXP / External Injector

Use this setting if you are using an external weather injector that overwrites X-Plane's METAR.rwx file, yet disables "real world weather" mode in X-Plane. FSGRW and Active Sky XP are examples, and similar future products may work the same way.

In this mode, RWC will always read the METAR.rwx file in X-Plane to generate its clouds, even when "grab real weather from the net" is disabled in X-Plane. It will not attempt to download and use its own

METAR data, unlike “Always” mode, and depends on an external add-on to keep the METAR.rwx file up to date. RWC will check for changes in METAR.rwx once per minute, and apply them as appropriate.

When using FSGRW, you may wish to disable “Never Change Visible Weather” to ensure that the initial set of weather updates it produces at the beginning of your flight are picked up.

When using Active Sky XP, be sure to configure X-Plane as described in the ASXP documentation. In the ASXP application, under Options / Simulator Depiction options, you should find a “Use SkyMaxx Pro depiction mode” option in recent versions of ASXP. Be sure this is enabled. Weather in X-Plane should be set to “from custom METAR (rwx) file” pointing to the METAR.rwx file, not “match real world conditions,” when using ASXP. You should not use ASXP’s “global static” mode with SkyMaxx Pro.

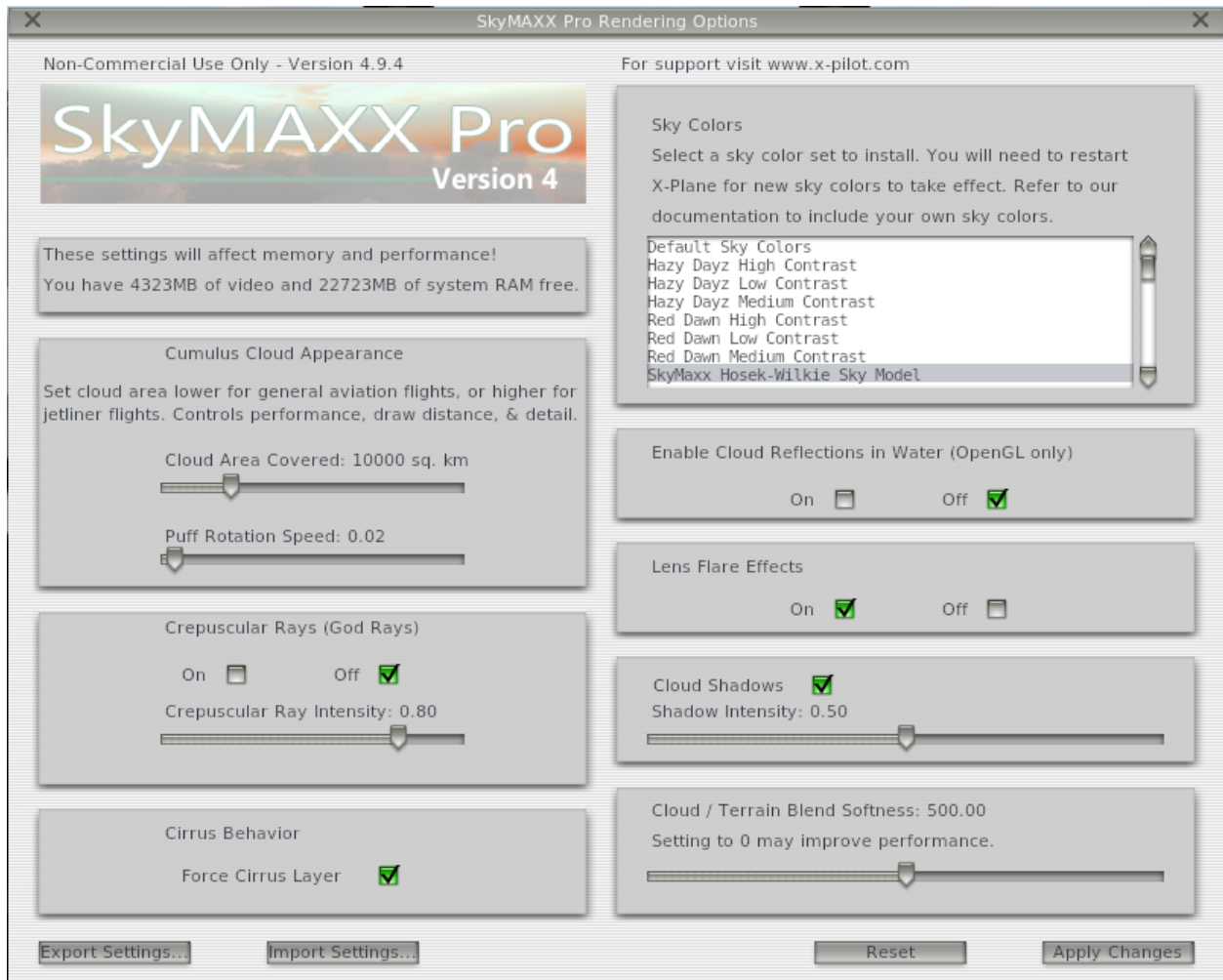
The other setting is “**Never Change Visible Weather**”. This prevents the clouds around you from changing even if updated weather conditions for your location are received. Instead, new weather conditions will only be reflected in new areas that you fly into. This creates a more seamless experience when weather is updated. However, if having the most recent weather conditions reflected in what you see is more important to you, you can un-check this option. When this option is disabled, the clouds around you will fade out and new clouds will fade in if new weather conditions for the world are received.

If “Never Change Visible Weather” is enabled, the clouds around you won’t change even if you manually download a new METAR file through X-Plane’s weather screen. If this is something you do prior to a flight, be sure to download your weather before setting your location.

Getting the Most Out of RWC

RWC works its magic when you can see distant, complex weather systems and fly into them. For the best experience, you’ll want to **adjust SkyMaxx Pro’s cloud draw area setting as far out as your system can comfortably handle.**

To do this, open up the “Configure Clouds” menu from the Plugins/SkyMaxx Pro menu in X-Plane. You should see SkyMaxx Pro’s configuration screen:



In the upper-left panel, you'll find the "Cloud Area Covered" setting. You'll want to experiment to find how high you can set this before your system experiences decreased performance or stuttering when stormy conditions are present, but most modern systems can run very comfortably with this slider set to between 1/2 and 2/3 of its maximum value, or around 50,000 square kilometers. That provides a good balance between performance, and seeing what RWC can do.

You might want to stop short of putting this slider all the way to the right, however. As you increase the cloud draw area, the amount of detail in individual clouds is reduced in order to maintain good framerates. Maxing out this slider is only a good idea if you fly at very high altitudes, and you have a high-end system.

Using RWC on a multi-PC setup

RWC only needs to be installed on your client PC's. As long as all SkyMaxx Pro, X-Plane weather, and RWC settings are the same on each client, your clouds should be synchronized.

RWC depends on the METAR.rwx file to position its clouds. If you are using a third-party weather injector that manipulates this file, check to make sure the same METAR.rwx file is being delivered successfully to each client PC if the clouds appear different on each channel.

Setting RWC to “always” mode on each channel can also help with synchronization if you’re running into trouble. In this mode, RWC will download its own METAR data instead of relying on whatever mechanism you are currently using to synchronize METAR.rwx on each PC.

Make sure you have sufficient product licenses to run SkyMaxx Pro and RWC on your setup. If a license check fails on SkyMaxx Pro, no clouds will appear on that PC. Examining X-Plane’s log.txt file will show if a license problem occurred.

Troubleshooting

My frame-rate or stuttering is worse after installing RWC.

Reduce the “cloud area covered” setting in SkyMaxx Pro’s configuration screen, as described above. Keep in mind RWC removes X-Plane’s internal limitation of three cloud layers, and so it may result in many more clouds in a scene for the same weather conditions. This can come at a performance cost.

I don’t get it; nothing seems different to me.

Make sure you’ve turned up your “cloud area covered” setting in SkyMaxx Pro, or you won’t see the larger-scale weather systems RWC provides! Also make sure real world weather is enabled in X-Plane, as described above.

The clouds shown don’t reflect what’s in the METAR report.

If you’ve toggled real-world weather on or off, you may need to tell X-Plane to read the METAR data now from the Environment/Weather menu screen. Also, make sure real-world weather is enabled from the Environment/Weather menu, and the Real World Weather option in SkyMaxx Pro’s configuration screen is set to Automatic or Always.

If you are using an external weather injector, it may take up to 60 seconds for RWC to pick up new METAR files that are dropped in. Just give it some time.

You can also try using the “Force Weather Reload” option in the Plugins / SkyMAXX Pro menu to force RWC to synchronize with the current METAR file.

Also, if the METAR data asks SkyMaxx Pro to position an overcast layer in such a way that it will intersect with a “broken” or other cumulus cloud layer, SkyMaxx Pro will automatically reposition the cloud layers to avoid this intersection if your stratiform setting is on “solid” or “broken”. This is to prevent distracting visual anomalies. Setting your stratiform setting in SkyMaxx Pro to “sparse particles” or “dense particles” will prevent this from happening, if it’s an issue.

The clouds shown don’t match perfectly with X-Plane’s weather radar.

Our clouds are positioned very precisely, often even more precisely than X-Plane’s own default clouds. As a result, X-Plane’s built-in weather radar display will show the same general shape of weather patterns that RWC displays, but the correlation won’t be perfect. We’re working with Laminar on a future solution to let our systems communicate with the weather radar for perfect correlation; stay tuned.

The clouds shown don’t match what’s outside my window.

The METAR data X-Plane is using might be old. If you’re using X-Plane’s built-in real world weather system, you can force it to download a new set of data from the Environment/Weather screen. Even

then, the data is likely to be several hours old. If accurate, current conditions are important to you, you might consider purchasing a third-party weather engine that works through X-Plane's METAR.rwx file.

[The "Stratus / Overcast Representation" setting in SkyMaxx Pro is no longer working.](#)

SkyMaxx Pro's "Solid Stratiform" and "Broken Stratiform" effects can only represent stratus clouds that cover the entire sky. When RWC is active, these cloud types will only be shown if the entire surrounding area is reporting overcast conditions. When the local weather conditions are more complex, smaller overcast areas will be represented by sparse or dense particles instead.

[RWC doesn't seem to do anything while I'm flying online with VATSIM, etc.](#)

The plugins that come with these online networks override X-Plane's weather with uniform weather conditions. If you want to fly on these networks while using detailed METAR data to position your clouds, set RWC to "Always" in its configuration screen.

[RWC doesn't seem to do anything while I'm flying with my third-party weather injector add-on.](#)

Weather injectors that communicate with X-Plane using datarefs instead of through the metar.rwx file do not provide detailed cloud placement information to X-Plane. As a workaround, you can set RWC to "Always" in its configuration screen to let RWC manage cloud placement, while still using your other add-on for other weather effects.

[The clouds around me seem to jump a little every so often.](#)

When you cross a one-degree tile boundary in X-Plane, X-Plane's internal coordinate system changes to account for the curvature of the Earth. When this happens, we have to re-position our clouds in this new system. We do this as accurately as we can with the information provided to us, but there is often a small error that can result in the clouds moving slightly when this occurs.

Additional Support

For additional support, visit www.x-aviation.com to contact customer support. RWC's official support forum is also an option, and may be found at www.x-pilot.com