

## **RTI Next Generation Weather Driver**

RTI is releasing a new version of its incredibly popular Weather Driver today. The new driver is available now on the RTI Driver Store.

RTI's Weather Driver is the most installed driver in the history of RTI Two Way Drivers, used in thousands of installations around the world. It has traditionally been one of our most stable drivers as well. That began to change a while ago as the provider of our data feed made changes in its product offerings that seemed to put our needs on a bit of a back burner, and what had traditionally been a solid offering began to exhibit some inconsistencies.

We began the process of creating the replacement almost 2 years ago, surveying the market for a data provider that would be as reliable going into the future as our previous provider had been in the last decade. It was a tough search, with many fits and starts, as we tested and wrote code for multiple API's by multiple companies, several of which would get acquired, or otherwise change their business model in the middle of discussions with them.

### **The New Weather Feed**

In the end, the new feed data will be provided by The Weather Company, part of IBM's Watson Division. IBM is one of the biggest players in the 'Big Data' space, and there's probably no bigger data than all the weather, everywhere on the planet. The Weather Company not only runs the Weather.com website, but also provides all the weather data to NBC and the Weather Channel. They provide data to help airlines manage turbulence issues, insurance companies to manage risks, and agricultural companies to manage crops. Not only do they collect data through traditional channels, but they have their own private network of weather stations, and they have access to Weather Undergrounds network of personal weather stations (with verification). They gather high altitude data from commercial airlines, and they gather barometric data from the phones of thousands of users of the Weather.com phone app. The Weather Company's promise is that their data is accurate to within a 500-meter grid, anywhere in the world.

### **The New Weather Driver**

Having found a reliable provider, we had a few other issues to figure out. The driver has been installed in so many installations for so long that there are going to be a huge number of systems to upgrade. This created a couple of issues that this driver was designed to eliminate. The first is compatibility. Even with a data feed that is completely different in almost every way from the previous one, the driver is designed to use the standard RTI driver upgrade capability, and not require any reprogramming of the system being upgraded. You will need to look at the configuration options to make sure those are correct, but the driver does the work of translating the new data into existing variables, allowing the driver to be updated and downloaded into existing systems with no other changes needed. The second issue is the upgrade itself. You have a lot of installations to upgrade, we can't really prevent that this time, but we want to try to prevent it from happening again. To that end, the Weather 2.0 driver is the first RTI driver to upgrade itself when needed.

### **Future Updating**

On bootup, and every few hours after, Weather Driver 2.0 will check for an upgraded version. When it finds one it will download it, store it to persistent memory, and begin to execute the updated version. There will be no need to make another trip to update it again. The only reason you will have to update the driver again would be if we are able to add additional features; the current functions and variables should always work.

### **Advanced Localization**

The most significant update in this new module is the localization options for international users. The driver configuration allows you to choose one of over 70 language codes to adjust the language used to provide the weather. This includes the days of the week and compass direction variables as well as the condition text and the forecasts. Because these were not in the original driver, using these variables will require additional programming.

### **Maps and Imaging**

This version of the driver does not yet include radar and satellite images or other maps. We are working on a system to provide these as soon as possible, so the map variables are still in the driver. Currently they will display a placeholder image. Some maps that are not available from the new provider have been removed: Fronts and Jetstream maps will not be available going forward, neither will Infrared Radar. The new feed will, however, provide a temperature map as well as a 'Feels Like' map to replace both Wind Chill and Heat Index. It will also provide a map that combines satellite views and radar on the same map. These variables are already in the driver and will be activated at a later date.

### **The Old Driver and the Old Feed**

The old weather feed was provided by Weather Underground. Our data was received through a custom XML feed crafted for our needs, not through their very publicly discontinued API. Unfortunately, communication about the status of these feeds was lacking and we were recently informed that the feed would expire at the end of January. We are sorry for the lack of advanced notice, but this point is important:

**All the weather data on all current RTI systems will stop updating at the end of January 2019**

Once again, we have made every attempt to make the changeover to the new system as easy as possible and have made an extensive effort to prevent additional updates from being necessary in the future. Even if, or possibly especially if, the next change is ten years in the future, we hope to be able to handle any major change in the weather feed automatically, with all the systems in the field that are running Weather Driver 2.0 or later updating themselves to deal with any changes with minimal to no interaction on your part.

The new Weather Driver 2.0 from RTI uses a more modern data feed from a provider with a significantly more powerful infrastructure to make the weather conditions and forecast displayed on your panels as accurate as possible, while providing a system that is as future-proof as we can make it, to avoid any disruptions in the future.