



FIP Gauges Selection Guide

No different from other computer hardware, the Saitek Flight Instrument Panel (FIP) needs a piece of software commonly called a **Device Driver** or (**Driver** in short) to support its “communications” with **FSX** or **P3D**.

The original FIP Driver from Saitek is based on a selected subset of Standard Flight Simulation (FS) Commands, which in general supports all stock aircraft in FSX and P3D, as well as many third-party aircraft. *(Let's call these Saitek FIP Driver supported Aircraft the “GROUP 1 Aircraft” and the FIP Gauges developed for them the “GROUP 1 Gauges” for comparison sake.)*

As flight dynamic is multifaceted, some of the aircraft developers on the market are employing extra programming approaches to achieve the specific effects they aim for in their products in addition to the straightforward FS Command scripts.

One of these measures is called the Local Variable (Lvar), which is used specifically to generate a resulting value for a specific function based on the calculation from a series of FS commands.

Sadly, the Saitek Driver doesn't support these types of programming approach. So, the FIPs can't handle gauges from aircraft using Lvars, too.

Fortunately, SPAD.neXt, a third-party driver, has come up to fill up this gap. We may regard SPAD.neXt as an enhanced FIP Driver that offers extended features and functions that the original Saitek Driver doesn't provide.

With SPAD.neXt, FIP gauges can now be developed for those aircraft using Lvars in their designs. *(Let's call the FIP Gauges developed for these aircraft the “GROUP 2 Gauges” and the Aircraft the “GROUP 2 Aircraft” for comparison sake.)*

In addition, as SPAD.neXt is an enhanced version of the Saitek Driver, it can support the Group 1 Gauges developed for the GROUP 1 Aircraft as well.

SELECTION GUIDELINE #1

The first guideline of choosing the correct gauges for FIP cockpit is:

IF YOU ARE USING THE SAITEK DRIVER, ONLY LOOK FOR the **GROUP 1 Gauges**, which are marked **“Saitek OK - SPAD.neXt OK”** as example shown below:



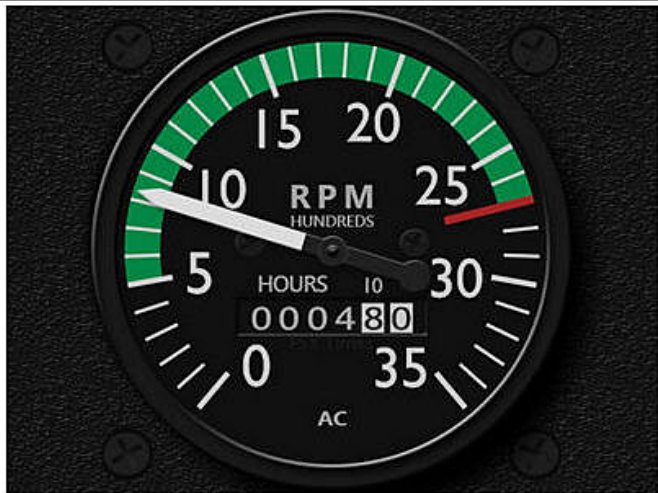
The image shows a circular RPM gauge for a Cessna C172SP. The scale ranges from 0 to 30, with major markings every 5 units and minor markings every 1 unit. The needle is pointing to approximately 22. The gauge is labeled 'RPM X100'. Below the scale, there is a digital display showing '00048' and 'HOURS'.

Cessna C172SP RPM
Release Date : Jun 28, 2015 **Saitek OK** **SPAD.neXt OK**
Updated On : Oct 28, 2016 (Version : R4a)

FEATURES :

- Comes with 2 Gauge Versions - Clean & Extended
- Engine Hours
- with Optional Flaps Indicator

GROUP 2 Gauges that are marked **“Saitek x - SPAD.neXt OK”** are not compatible with the Saitek Driver. Don't choose them because they require SPAD.neXt in order to run properly.



The image shows a circular RPM gauge for a Piper PA28 (A2A). The scale ranges from 0 to 35, with major markings every 5 units and minor markings every 1 unit. The needle is pointing to approximately 10. The gauge is labeled 'RPM HUNDREDS'. Below the scale, there is a digital display showing '000480' and 'HOURS 10'. The gauge is also labeled 'AC'.

Piper PA28 RPM (A2A)
Release Date : Oct 04, 2016 **Saitek x** **SPAD.neXt OK**
Updated On : Oct 04, 2016 (Version : R1)

FEATURES :

- RPM Indicator Customized for **A2A PA28**
- Engine Hours
- **SPAD.neXt is Required** for this Gauge to Work Properly

IF YOU ARE USING SPAD.neXt, there is no restriction because my gauges are fully compatible with SPAD.neXt.

SELECTION GUIDELINE #2

DON'T use GROUP 1 Gauges on GROUP 2 Aircraft, or vice versa;
DON'T use GROUP 2 Gauges on GROUP 1 Aircraft, or vice versa;
otherwise, errors and inaccuracy will result.

It is because the GROUP 2 Aircraft involve the using of Lvars that the GROUP 1 Gauges are not compatible with.

Similarly, scripts for Lvars used in GROUP 2 Gauges have no effect on GROUP 1 Aircraft, so they are not supported, too.

SELECTION GUIDELINE #3

In theory, **all GROUP 1 Gauges can be used on any GROUP 1 Aircraft**.

However in reality, we wouldn't use a Cessna 172SP Airspeed Indicator on a Beech Baron 58 because their speed spectrums, such as V_A , V_{NE} , etc are different.

The same rule applies on almost all RPM Indicators and some other gauges.

That's why my gauges are grouped by developers and aircraft models because they are customized accordingly.

Surely there are certain kinds of gauges, such as the Attitude Indicator, Directional Gyro, VOR and ADF, etc, which are less unique to general aircraft model.

However, there may still be differences (subtle or significant) among them in terms of features, specifications and operations, no matter how they look similar to each other in appearance.

So the third guideline when choosing gauges is to

Firstly look for the gauges customized for the aircraft on which you are planning to use. If there isn't any,
Then look for the those that are largely closer to the aircraft you use.

SELECTION GUIDELINE #4

Unlike the GROUP 1 Gauges, GROUP 2 Gauges are generally customized for specific GROUP 2 Aircraft, and in most cases developer-dependent.

It means that the GROUP 2 Gauges developed for a GROUP 2 Aircraft from A developer is unlikely to work on any other GROUP 2 Aircraft from B developer, or vice versa.

In addition, although it is possible that the GROUP 2 Gauges developed for a specific GROUP 2 Aircraft can be used on another GROUP 2 aircraft from the same developer, it is still not always the case because the Lvars used on A aircraft could be different from B aircraft. This is not uncommon.

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In general, above guidelines have covered the basic criteria regarding FIP gauges selection. Of course, the ultimate result and actual suitability can only be verified by real use.

If you have any question regarding FIP Gauges for your virtual cockpit, feel free to contact me by email at tomtsui@netvigator.com

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