

# Let FileMaker Pro touch the physical world

### 24U PHIDGETS PLUG-IN OVERVIEW

24U Phidgets Plug-In allows FileMaker Pro to interact with various Phidgets boards to let **your solution control physical devices** and **physical devices** to **control your solution**.

#### 24U Phidgets Plug-In allows you to:

- Read and write RFID tags to track goods, assets and people
- Capture sensor data to collect environmental data such as temperature or force
- Control servo motors to automate moving parts of robots and machines
- Read digital and analog inputs to control your solution by physical controls
- Set digital outputs to switch lights and other electrical devices
- New Display text on an LCD display to create custom user interface such as cashbox
- New Set analog outputs to control electronic equipment

Try it now for free



# **READ AND WRITE RFID TAGS**

With 24U Phidgets Plug-In and the <u>PhidgetRFID board</u> you can read and write to RFID tags up to 6cm away. The latest board revision supports EM4100 series, ISO11785 FDX-B and PhidgetTag protocols and writes to T5577 tags.

By accessing the RFID tags directly your FileMaker solution can easily track people, animals, goods, assets, and other identifiable physical items, such as documents, faster than by typing their IDs on the keyboard.

Download a copy now

#### **CAPTURE DATA FROM SENSORS**

24U Phidgets Plug-In lets your FileMaker solution use <u>Phidgets I/O Boards</u> to read data from variety of <u>environmental sensors</u>, either upon request, or by triggering a script when some sensor's value exceeds certain limit.

By reading sensor values, your FileMaker solution can collect environmental data such as temperature, force, or pressure, or respond to unexpected events in the physical world, such as overheating your lab or insufficient humidity in your greenhouse.



#### Try it out



# **CONTROL SERVO MOTORS**

The <u>Phidgets Servo Controllers</u> are supported by 24U Phidgets Plug-In to control RC servo motors or actuators directly from FileMaker Pro.

By controlling servos and actuatory your FileMaker Pro solution can literally move things in the physical world, such as window shaders or machine parts. You can even design an automated CNC lathe or cutter controlled solely by FileMaker Pro.

Get a copy

#### **READ DIGITAL AND ANALOG INPUTS**

24U Phidgets Plug-In can use the <u>Phidgets I/O</u> <u>boards</u> to read both digital and analog signal inputs. Digital inputs can be used to read the on/off state of buttons or switched while analog inputs can, in addition to sensor values, read the state of input devices such as knobs and sliders.

Whether you're designing a point-of-sale terminal or an entertainment solution such as bowling, being able to read signals lets you design a completely customized physical interface while still running a FileMaker solution on the backend.



Try it now



#### **SET DIGITAL OUTPUTS**

The <u>Phidgets I/O boards</u> with digital outputs can be controlled by 24U Phidgets Plug-In to set the on/off state of up to 16 digital outputs per board. The digital outputs can be used to control electronic circuits as well as to switch high-current electrical devices using <u>relays</u>.

By controlling digital outputs your FileMaker solution can switch lights, turn on the heating or air condition, open doors, or allow and disallow the use of any electrically powered devices, all based on the data in your database.

Start with a free trial

#### **NEW! 24U PHIDGETS PLUG-IN 2**

24U Phidgets Plug-In 2 is the new version of our hardware integration plug-in for FileMaker Pro, improved to provide the following new features and more:



- 64-bit version fully compatible with FileMaker Pro 14 and 15
- Support for **network connected Phidgets**
- Extended RFID compatibility including writing to writable RFID tags
- **TextLCD** support
- PhidgetBridge support for **load cells** reading
- PhidgetAnalog support for controlling analog electronic devices
- Extended support for servo motors

#### **COMPATIBLE WITH 64-BIT FILEMAKER PRO 14 AND 15**

24U Phidgets Plug-In 2 works on both 32-bit and 64-bit architectures, making it fully compatible with FileMaker Pro 14 and 15, regardless of which mode the application runs in. On OS X the plug-in comes as universal binary just like FileMaker Pro. On Windows you have to install the version matching your FileMaker Pro architecture.



You can upgrade to the most recent version of FileMaker Pro as soon as you are ready. 24U Phidgets Plug-In 2 will simply work with it, letting you take advantage of the new FileMaker Pro feature while keeping your custom software solution integrated with your custom hardware solution.

Upgrade now

# **CONTROL PHIDGETS OVER NETWORK**

With 24U Phidgets Plug-In 2 you can now connect to a remote <u>PhidgetSBC</u> or a <u>Phidget WebService</u> equipped computer and access any compatible Phidgets boards connected there.

By being able to connect to Phidgets over network your solution can now access sensors and control located farther from your computer, such as sensors in a factory or plant field, or door locks in the whole building.

Try it out



#### WRITE TO RFID TAGS

24U Phidgets Plug-In 2 has been updated to support the new <u>PhidgetRFID Read-Write</u> board so that you can write to T5577 writable RFID tags.

Being able to write information to writable RFID tags makes it easier to integrate your FileMaker solutions with other RFID systems or to implement a system that does not rely on a constant online access to a central database of tag IDs.

Buy a license

#### DISPLAY TEXT ON LCD DISPLAY

You can use 24U Phidgets Plug-In 2 to display text on an LCD screen through the <a href="https://example.com/PhidgetTextLCD">PhidgetTextLCD</a> board.

If you're designing a FileMaker based point-of-sale or entertainment solution, being able to display text on a small LCD display now lets you create a fully customized hardware terminal and even control multiple terminals from a single copy of FileMaker Pro.

Try it yourself



#### CHECK VOLTAGE OF WHEATSTONE BRIDGES



24U Phidgets Plug-In 2 has added support for the <u>PhidgetBridge</u> input board to read values from un-amplified Wheatstone bridges, such as strain gauges, compression load cells, pressure sensors, piezoresistive accelerometers, or compasses.

Being able to use Wheatstone bridge based sensors lets your solution to measure force differences much more precisely, so that you can implement your FileMaker solution to weigh goods on a custom-shaped scale, collect data about construction strain etc.

Check it out

#### CONTROL ANALOG OUTPUTS

With 24U Phidgets Plug-In 2 you can now also control analog outputs of the <a href="PhidgetAnalog">PhidgetAnalog</a> board, setting them to any voltage in the range from -10V to +10V.

The ability to control analog outputs lets you build a FileMaker solution that generates test signals, controls light dimmers, or even displays numeric values using attractive mechanical gauges.



Get started now



# MORE SUPPORT FOR SERVO MOTORS

In 24U Phidgets Plug-In 2 we have added support for the <a href="https://phidgetAdvancedServo 8-Motor">PhidgetAdvancedServo 8-Motor</a> board and the ability to set minimum and maximum values for servos.

With the support for the 8-motor controlled your FileMaker solution can now control up to 8 motors with a single board and the minimum and maximum values can help you to avoid breaking your hardware creating by making mistake in your software.

Go get it

#### **HOW IT WORKS**

Phidgets are a system of low-cost electronic components and sensors designed and produced by Phidgets Inc., that are usually controlled by a personal computer. 24U Phidgets Plug-In lets you interact with these devices from within FileMaker Pro.

To access your Phidgets boards using 24U Phidgets Plug-In you need to install the Phidgets driver and connect the boards either to the computer's USB port, or the Phidgets SBC, or to another computer with the Phidget WebService installed.

24U Phidgets Plug-In supports most Phidgets I/O boards, PhidgetRFID board, Phidgets Servo Controllers, and Phidgets LCD displays. If you don't find your favorite Phidget supported yet, don't hesitate to contact us. We will either consider adding its support for everyone or offer a custom-built version tailored to your needs.

Buy the hardware directly from Phidgets Inc.

## **PLUG-IN FUNCTIONS**

24U Phidgets Plug-In provides all its functionality to FileMaker Pro via the following set of external calculation functions:

- Phidget Version ( { versionFormat } )
- Phidget Register (selector)
- Phidget Read (phidgetSN; valueID {; index; { extra } } )
- Phidget\_Write ( phidgetSN ; valueID ; data { ; index { ; tagProtocol } } )
- Phidget\_SetScriptEvent( phidgetSN; event/time; scriptName {; index {; changeAmount {; threshold } } })
- Phidget\_Get ( what { ; more ; index } )
- Phidget Set ( what ; value { ; phidgetSN ; index } )
- Phidget\_Connect ( address ; password {; port } )
- Phidget Disconnect (address)

Click here to examine the whole syntax description

# SYSTEM REQUIREMENTS

24U Phidgets Plug-In 2 requires the following combination of operating system and FileMaker software versions to run:

#### **Recommended configuration**

- Mac OS X: Any Intel Mac, 2048 MB RAM, Mac OS X 10.10 Yosemite, FileMaker Pro 14 Advanced or newer
- Windows: Dual Core 1.6 GHz processor, 2048 MB RAM, Windows 7, FileMaker Pro 14 Advanced or newer

#### **Minimum requirements**

- Mac OS X: Any Intel Mac since 2008, 2048 MB RAM, Mac OS X 10.8 Mountain Lion, FileMaker Pro 12
- Windows: 1 GHz processor, 2048 MB RAM, Windows 7, FileMaker Pro 12

#### **FileMaker Pro Compatibility**

- Fully compatible with FileMaker Pro 12, 13, 14, and 15
- Compatible with FileMaker Pro 14 in both 32-bit and 64-bit modes
- Compatible with both 32-bit and 64-bit versions of FileMaker Pro 15 on Windows
- Older versions with limited functionality are available for FileMaker Pro 8 thru 11
- Click here to download the latest Phidgets driver

Click here for detailed compatibility table





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