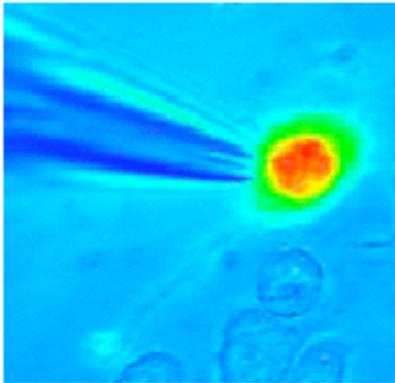


# Patcher's Power Tools

An Igor Pro™ Tool Collection (not only) for Electrophysiologists

## Patcher's Power Tools



Igor XOP & Patcher's Calculator

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Lockin Calculation by Dr. Tao Xu

## Disclaimer

This software package is free of charge. It is distributed in the hope that it will be useful, but **without any warranty** and without even the **implied warranty of merchantability** or **fitness for a particular purpose**. Please note that, although the package works closely together with HEKA's and WaveMetrics' data acquisition and analysis software (PatchMaster, Pulse, X-Chart, Software LockIn, Fura and Igor Pro), HEKA Elektronik Dr. Schulze GmbH and WaveMetrics, Inc. take no responsibility for the product and can not offer any support. Redistribution via Web- and FTP-server or electronic media requires the explicit permission of the authors. You may give away copies of Patcher's Power Tools to colleagues free of charge as long as the copy contains the whole package without any modification.

## System Requirements

This software package adds several external operations, macros and experiments to Igor Pro™. Some macros require Igor 3 or higher to run, the extension however will be compatible with Igor 5 or higher. There are two different PPT.xop's for Macintosh and Windows. The macros will run on both Igor platforms, Macintosh and Windows.

## Files

PPT consists of the following files:

- **PPT.xop** - Igor extension OS X or Windows version (see below for the features)
- **PPT Manual.pdf** – the Manual to PPT
- **PPT Help.ihf** - a help file explaining the added external operations
- **ReadMe PPT.pdf** - this file
- **History.rtf** - a file explaining the changes from version to version

- **PPT Experiments** - a folder containing Igor experiments demonstrating some features
- **PPT Macros** - a collection of useful Igor macros including:
  - **PPT Control Panel** - a macro creating a control panel for (X-Chart)graphs
  - **PPT Peak Analysis** - a macro for analyzing peaks (incl. a demonstration experiment)
  - **PPT Dose Response** - a macro for dose-response fits (incl. a demonstration experiment)
  - **PPT Boltzmann Fit** - a macro for Boltzmann fits (incl. a demonstration experiment)
  - **PPT Pulse Utilities** - macros extending the Pulse-/X-Chart Loader

## Installation

To install the package place an alias of PPT.xop in the folder „Igor Extensions“ inside your Igor Pro folder and an alias of the folder PPT Macros (or of the macros you wish to use permanently) in the folder Igor Procedures.

When Igor is started the next time, a new menu will be added, called "PPT" and the macros will be installed in Igor's "Macros"-menu.

## XOP-Features

The extension adds the following functionality to Igor (see the help file for a detailed description):

- statistics of multiple waves
- plotting of multiple waves against one x-axis
- wave slimming
- calculation of buffered calcium concentration, liquid-junction potential ...
- direct loading of HEKA's Pulse™- PatchMaster™ and X-Chart™ files, incl. calculation of lockin data and preview

## Macro-Features

- renaming/killing of multiple waves
- drawing scale bars, zero lines and time markers
- setting the cursor range to NaN
- control bar for easier modification of graph axes
- control panel for automatized peak analysis
- control panel for automatized single- and double dose-response fit

## Getting Help

If you need help: all control panels added by the macros support balloon help. The XOP places its help into Igor's "Misc/Operation Help..." menu. If you want to include PPT's help into Igor's help, place an alias of **PPT Help.ihf** in the **Igor Help Files** folder.

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