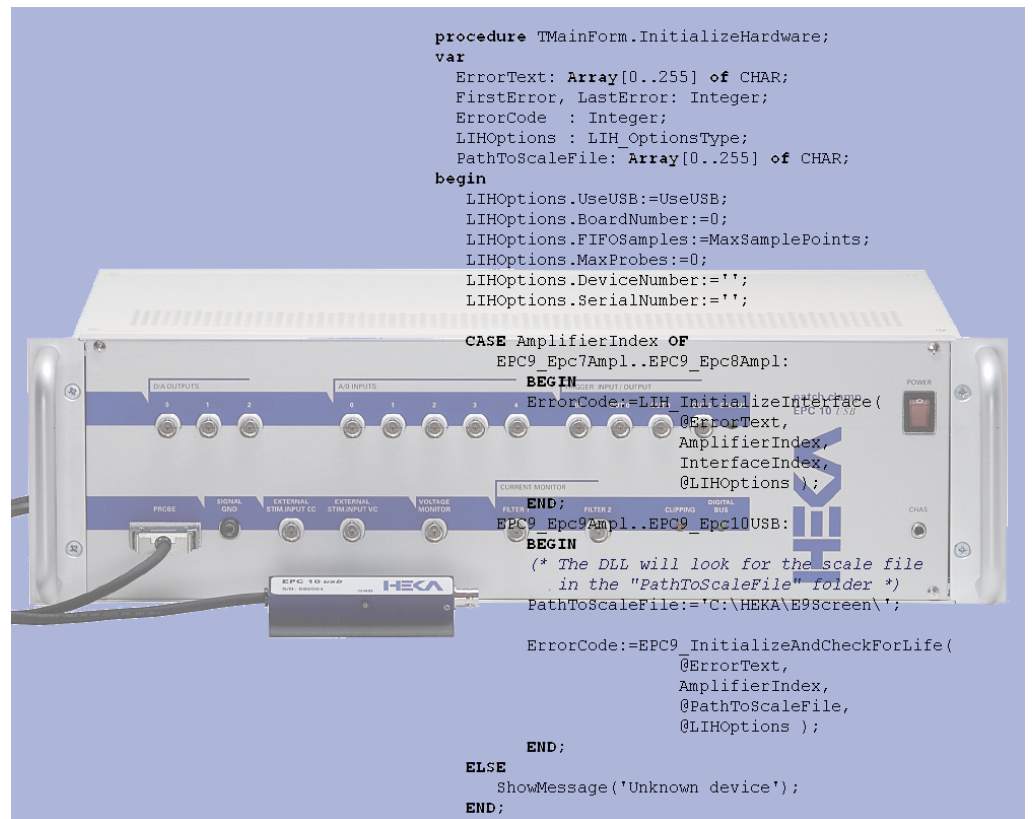




## EPC DLL

Dynamic Link Library for access to HEKA patch clamp amplifiers and interfaces



If you believe your job is to  
make new discoveries...

...discover EPC DLL:

- write your own custom tailored software
- easy support of various HEKA hardware

# HEKA

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to achieve the needed progress of tomorrow...



## **EPC DLL**

Dynamic Link Library for access to HEKA patch clamp amplifiers and interfaces

### *Introduction*

Many applications require a custom tailored experimental approach or user interface. The HEKA software packages provide different means for tuning the system.

#### **Automation and Standardization**

The HEKA programs PATCHMASTER, CHARTMASTER and FITMASTER provide a Protocol Editor which allows the design of more complex experimental work flows. The Protocol Editor also allows to include conditional statements in order to react upon online calculated analysis results or user input. The Protocol Editor is the central engine in PATCHMASTER which controls the interplay between patch clamp amplifier, stimulation and acquisition, online analysis and user interaction.

#### **User Interface**

All buttons in the HEKA programs provide a so-called "icon configuration" which can be used to control e.g. position, size, color or the icon. Individual icons, in addition, can be hidden. The customized window configuration can then be saved as dialog file and serves as new user interface at the next start-up of the program.

#### **Batch communication**

All HEKA programs of the "Master" family include the so-called "batch communication" interface which allows to control the software from another application. This interface is widely used to customize an experimental workflow to a larger extent than it is possible with the protocol editor. The HEKA software then serves as kind of engine running in the background. The advantage is that the user does not have to worry about many standard operations which are provided by the HEKA software but has full freedom to create his own application on top of the HEKA program.

#### **EPC DLL**

For customers requiring even a larger freedom for writing their own application than described above, HEKA provides a dynamic link library which gives direct access to HEKA patch clamp amplifiers and data acquisition interfaces. The DLL can be used with most programming languages, such as C, Pascal, Delphi, and Visual Basic. The DLL provides functions for controlling all amplifier settings and for stimulation and data acquisition.

## Technical Specifications

### Documentation

The EPC DLL is delivered including a C-header file as documentation. The examples below show how to set the Current Gain, the holding potential, and how to execute an automated C-Slow compensation with the EPC 10 amplifier.

```
// EPC9_SetCurrentGain
// Sets the current gain of the amplifier.
// Gain is specified in V/A.
void _stdcall EPC9_SetCurrentGain( LONGREAL Gain );

// EPC9_SetVHold
// Sets the holding potential in voltage clamp mode.
// Please note that any voltage sent to the stimulus DA by one of the
// LIH functions below may overrule that VHold!
void _stdcall EPC9_SetVHold( LONGREAL Volts );

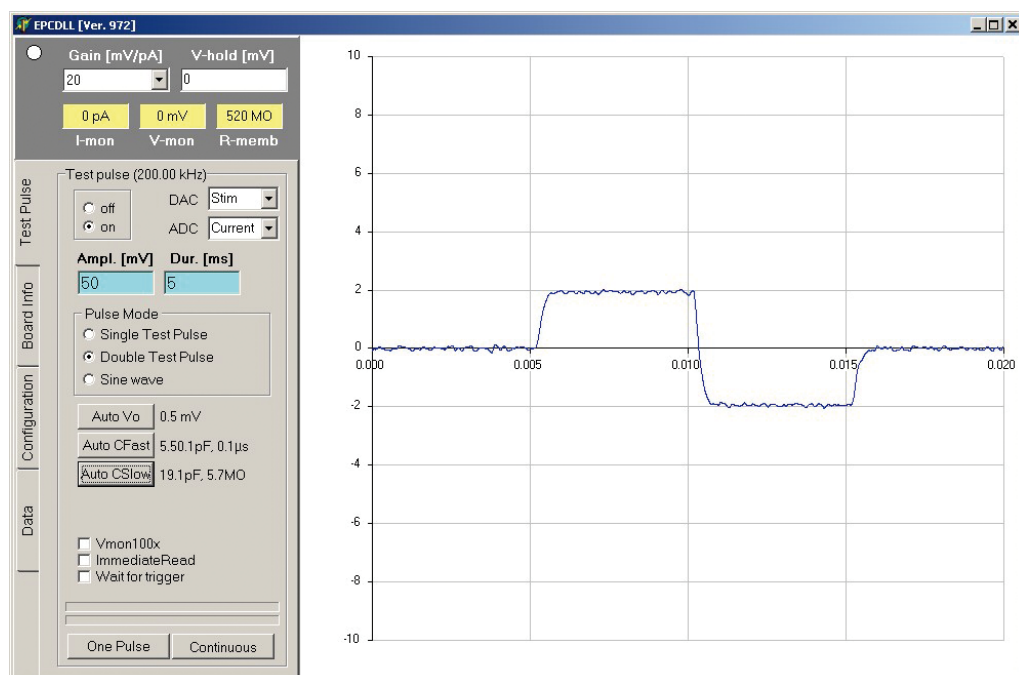
// EPC9_AutoCSlow
// Performs one AutoCSlow compensation.
// Returns true, if the 2 last iterations did change the
// compensation parameters by less than 2%.
// Uses the present settings of CSlow and GSeries as initial
// estimates. EPC9_AutoCSlow may fail, if those initial estimates
// are much too small for the actual patched cell. One can
// set better estimates using EPC9_SetCSlow and EPC9_SetGSeries
// commands. It is much better to supply too large values, than
// too small ones.
BOOLEAN _stdcall EPC9_AutoCSlow( void );
```

### Sample programs

In addition, the EPC DLL includes a sample program and corresponding code written in Delphi.

### Supported operating systems

Windows XP, Windows Vista





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