

# LeverAutoshaping

A Whisker client

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*by Rudolf Cardinal*

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# LeverAutoshaping

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# Foreword

## WARNING

**Whisker is a system designed for research purposes only, and should never be used to control medical apparatus or other devices that could endanger human life.**

## DISCLAIMER

**The authors, copyright holders, and distributors disclaim all responsibility for any adverse effects that may occur as a result of a user disregarding the above warning.**

# 1 LeverAutoshaping

## 1.1 About LeverAutoshaping

### Purpose

Autoshaping using levers as the CS.

### Software requirements

Requires Whisker v2.0 or greater.

### Data storage

- Text-based output to disk.
- ODBC data storage to a database (supplied).

### Author

Rudolf Cardinal ([rudolf@pobox.com](mailto:rudolf@pobox.com)).

### Copyright

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## 1.2 Required devices

The program requires to claim devices in groups named **box0**, **box1**, **box2...** with device names as listed below in bold:

```
// Names of lines the program expects to be able to claim
NOSEPOKE           // input
LEFTLEVER         // input
RIGHTLEVER        // input
LOCOBEAM_FRONT   // input
LOCOBEAM_MIDDLE  // input
LOCOBEAM_REAR    // input
HOUSELIGHT       // output
PUMP             // output
DIPPER           // output
LEFTLEVERCONTROL // output
RIGHTLEVERCONTROL // output
LEFTLIGHT        // output
RIGHTLIGHT       // output
PELLET           // output
```

```
// Aliases used while the program is in full flight, which it therefore expects
not to be present on the server:
```

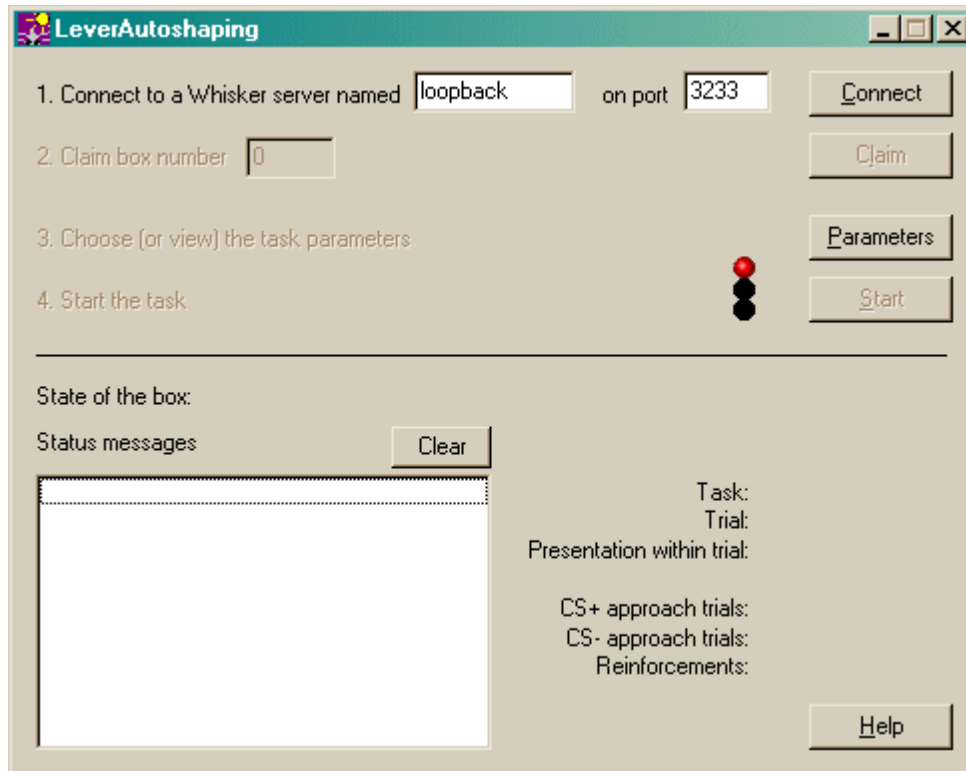
```
PlusLever
PlusLeverControl
PlusLight
MinusLever
MinusLeverControl
MinusLight
```

Please ensure that these devices are available and listed in the device definition file in use by the

server.

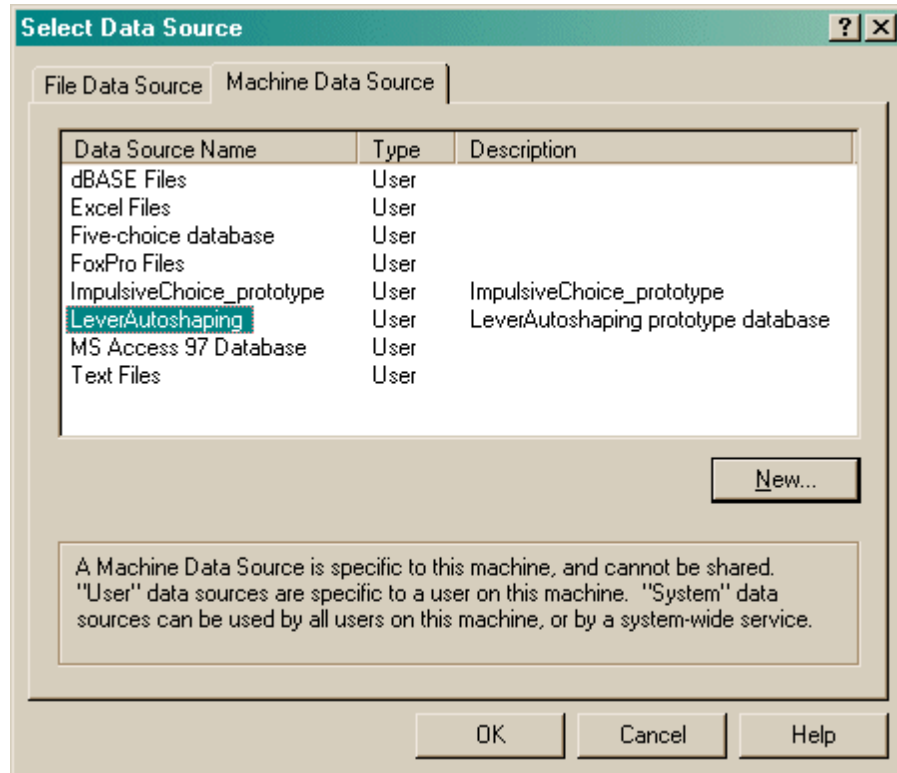
## 1.3 Using the task

When you run the task, the main screen looks as follows:



You must connect to a Whisker server, claim an operant chamber (box), and set up the [parameters](#) for your task. Once that's done, the traffic lights will turn amber. When you are ready, press *Start* to begin the task.

When the task finishes, it saves data to disk and pops up a new dialogue box for you to select a database to store the data to. (The data sources are configured under *Control Panel* → *ODBC*.) If you previously specified an ODBC data source in the parameters, that data source is used automatically and you will only see a dialogue box if something goes wrong and the program needs your input.



## 1.4 Parameters

The parameters dialogue box looks like this:

**Set parameters for LeverAutoshaping**

Subject details

Rat ID:  Session number:   
 Comment:

Data recording

xxx-04Sep2002-1408-LeverAutoshaping-summary.txt  
 ODBC data source name (see Control Panel). Blank to choose later:

Reinforcer

Pump - Infusion duration (s):   
 Dipper - # dips:  Dip time (s):  Inter-dip time (s):   Down at rest  
 Pellets - # pellets:  Pulse length (ms):  Time between pellets (s):

Autoshaping settings

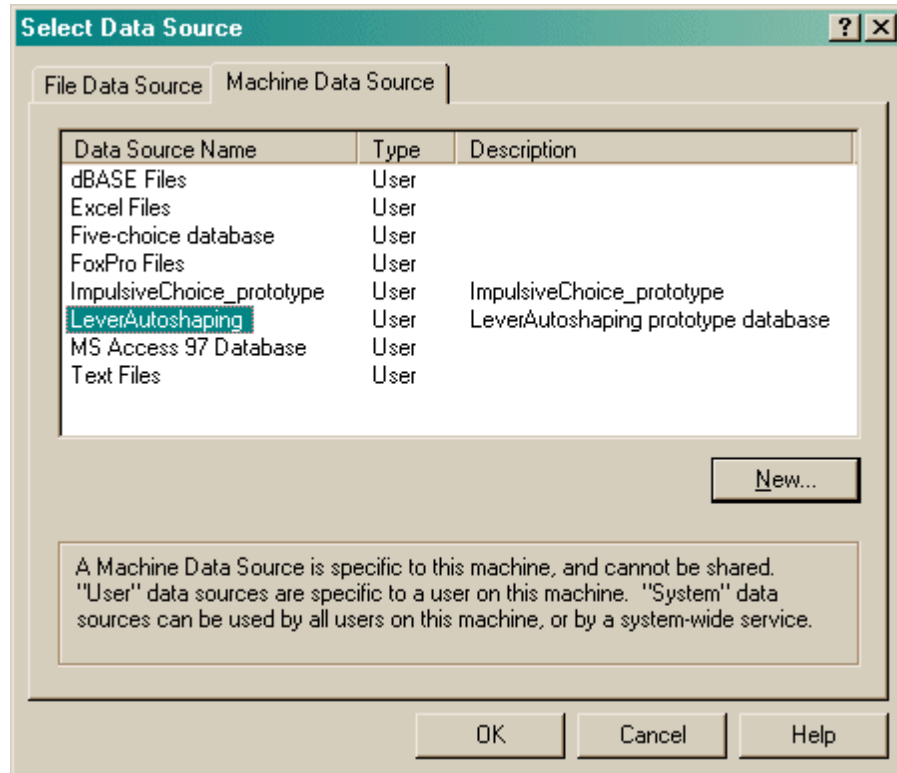
TASK TYPE:  Autoshaping  Omission  Probe  
 CS+ SIDE:  left  right  
 TRIGGER STIMULUS:  on nosepoke  on rear locomotor beambreak  
 on completion of VI, regardless of where the subject is  
 STIMULUS IS:  lever presentation  light above lever (with levers present all the time)  
 lever + light combination  
 Stimulus duration (s):  Post-reinforcement timeout (s):   
 VI minimum (s):  VI maximum (s):   Houelight on during task

THIS SESSION

Give  trials, starting with trial number

To pick an ODBC database **in advance** of finishing, click *Pick* and you will be offered the ODBC Data Source picker (below). Your choice will be recorded and will apply to this subject from now on (or until you specify a different source).





If you don't specify an ODBC data source now, or you delete the value in the "ODBC data source name" box, you'll be asked to choose when the task ends (and that choice will only apply to the session in progress).

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