

Manual BeneGrid v5

*For the WIN10 version a dwell control software must be installed,
because currently none is provided by the system.
Pages 3-4 and 9-11 apply.*



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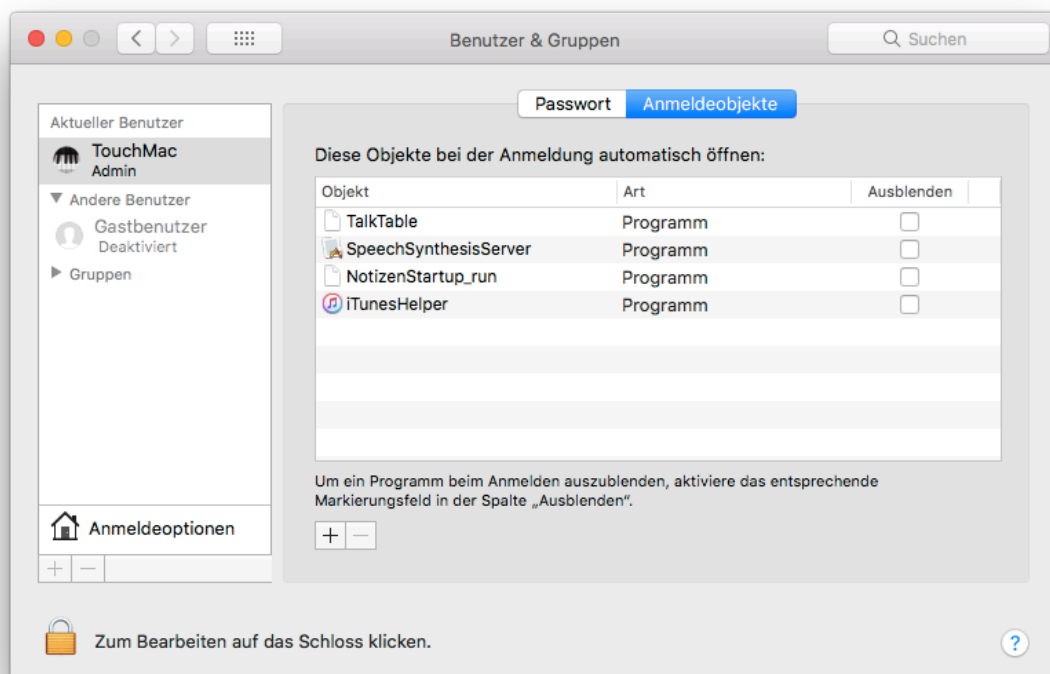
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BeneGrid How To

- 1) Mount "BeneGrid_vX_Package.dmg" by double-clicking
- 2) Drag the desired BeneGrid application to any folder on the Mac
- 3) Start with a double-click

For automatic start of the application at computer startup:

- Open System Settings -> Users & Groups
- Select login item objects tab
- Use drag & drop or press the + button to add the „TalkTable“ application
- The next System startup will automatically launch "TalkTable"



- 4) Clicking on a cell reads out the text it contains.
To override the text, click it a second time, this selects the whole text. Overwrite, and press Enter or click on the desktop to finish ("TextEdit" must be ON).
- 5) The bottom row can be populated via drag & drop or right-click (Ctrl-click) with any programs or files. This allows direct access to frequently used applications. The Name of the object is entered automatically.
- 6) At the top right any Internet address can be stored for direct access within a selected field by clicking the "Edit" button (shortened entry without "http: // www.").

A very helpful function key is the "AppSwitch" key. When clicking, a bar will pop up with all open applications.

With (dwell) click on the desired application, the Mouse pointer focus will be set on it.

This allows for more space on the screen, by e.g. outsourcing the text application constantly to a second screen and write in it, without explicitly having to click in the text window.

- 7) \leq and \geq move the whole grid to the left or right edge of the screen.
- 8) "Grid In/Active" switches the entire grid on or off.
- 9) "TextEdit On / Off" turns on or off the text input option.
- 10) With "AUDIO ON / OFF" (bottom left), the voice output is being controlled.
- 11) With "CLEAR" (bottom right) the currently selected cell is deleted.

- 12) With the slider on top, the speed of the speech output can be changed (not available in the "-big" variant).
- 13) The buttons "GYRO On", "Calibrate" and "Horizontal / Vertical" are relevant for the gyroscope control via iPhone / iPod Touch. For further details see below under "Gyroscope Control Setup". When using a head or eye control, these buttons can be ignored.
- 14) Click on the ?- or i-button (depending on the variant) to open the Settings window. Here, the X / Y angle sensitivity (Angle) for the screen deflection and the smoothing of the unwanted (jitter) movements of the gyroscope control can be set.

X / Y values: 1 generates maximum screen deflection (very coarse)

X / Y values: 50 produces minimum screen deflection (very fine)

Smoothing: 1 no damping of jitter

Smoothing: 50 extreme damping of movements

It is recommended to start with the default settings and to optimize the values when practicing the procedure.

Furthermore, the background and text colors for the selected cell and the text editor can be changed in the Settings window. The color editor is opened by clicking on the corresponding gradient button.

The character size of the text editor can also be set, so that the editor line can e.g. also be used as a chat feature.

The "Main / All" switch allows limiting the gyroscope deflection either to the main screen only (higher tracking resolution) or to multiple screens, if any. One possible application is described in 6).

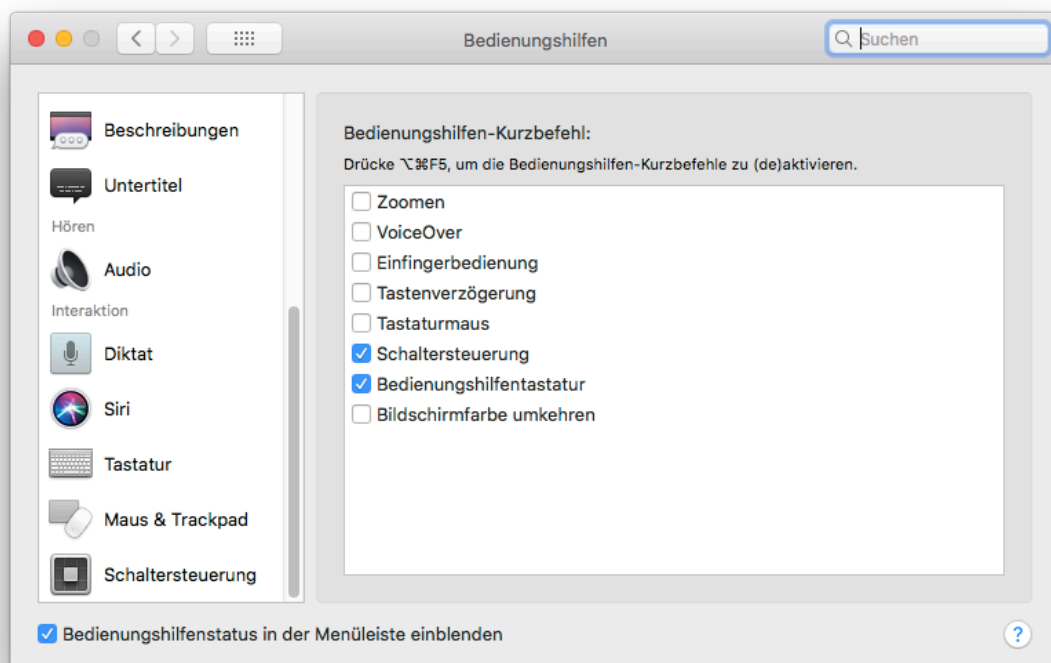
- 15) Important for helpers / carers is the F10 key. With it the gyroscope control is paused to, for example, change settings on the computer. Clicking on the appearing yellow "pause window" will reactivate the gyro control.

ALL SETTINGS AND TEXTS ARE AUTOMATICALLY STORED AND RELOADED AT THE NEXT START.

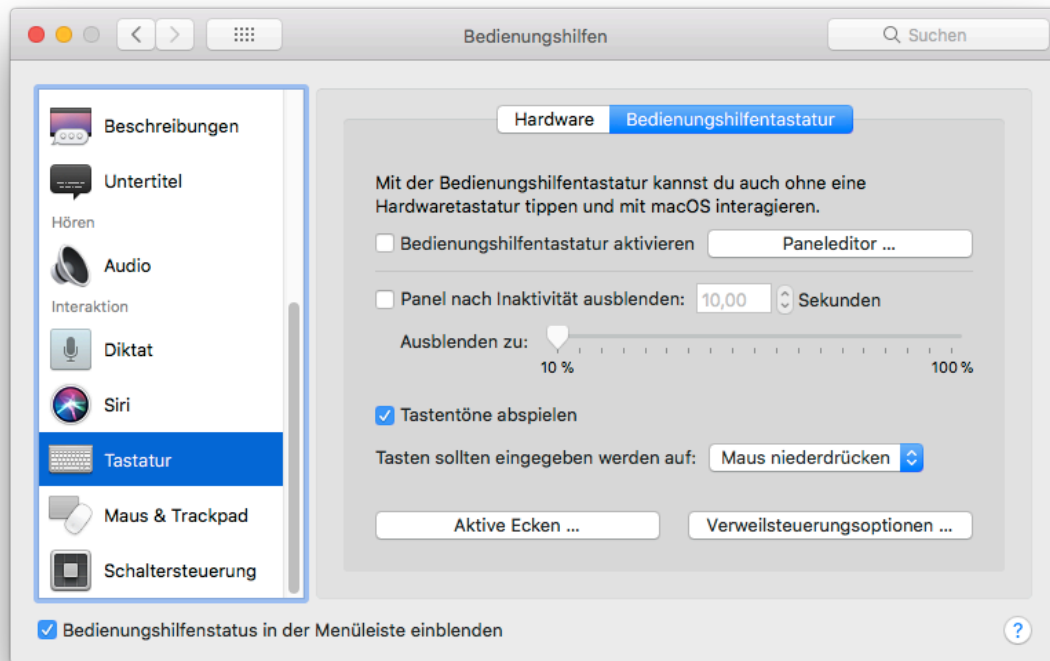
Activate the on-screen keyboard+

The accessibility settings vary slightly depending on the macOS version (Sierra 10.12, HighSierra 10.13, Mojave 10.14). These screenshots are from High Sierra 10.13. In macOS 10.12, the on-screen keyboard must be set up in the menu item "Switch control"

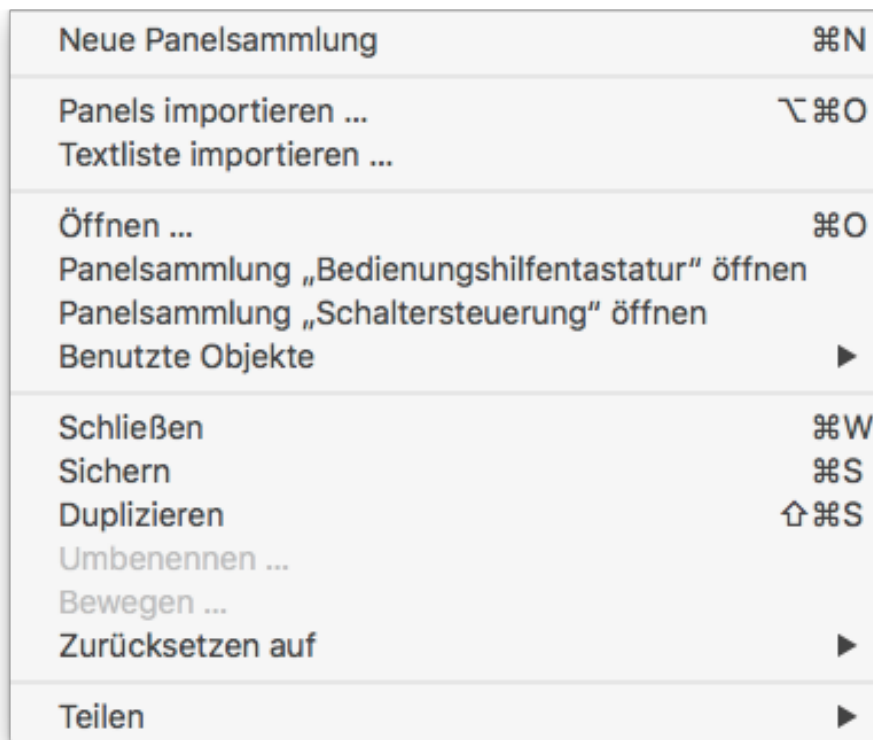
1) Open System Settings → Accessibility



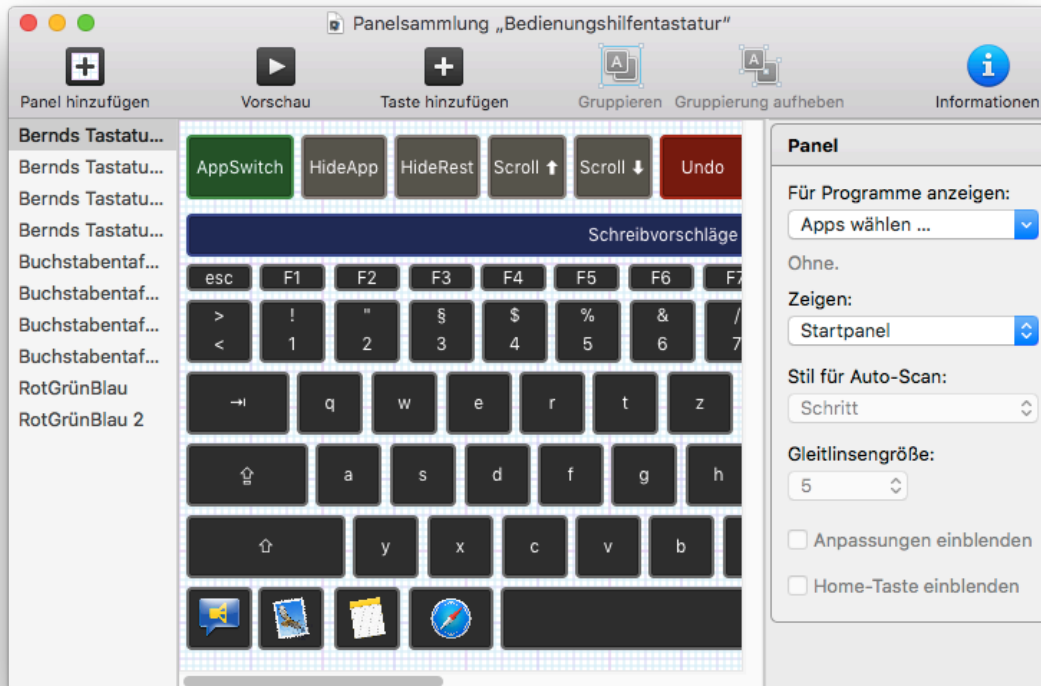
2) Keyboard → select the accessibility keyboard



3) Select Panel Editor and import "BeneGrid Panel"



- 4) Select "Bernd's Tastatur oben" or "... unten". In the display panel on the right, set the "Show" pop-up menu to "Start Panel" so that the keyboard starts up automatically. Then - IMPORTANT - save the setting with "Save"



- 5) Activate Accessibility Keyboard in the Keyboard Accessibility window with check mark.

The „OnScreen Keyboard+“ with word prediction is available in two variants for different user preferences. In the first case, the additional keys are placed above the standard keyboard, in the second case below.

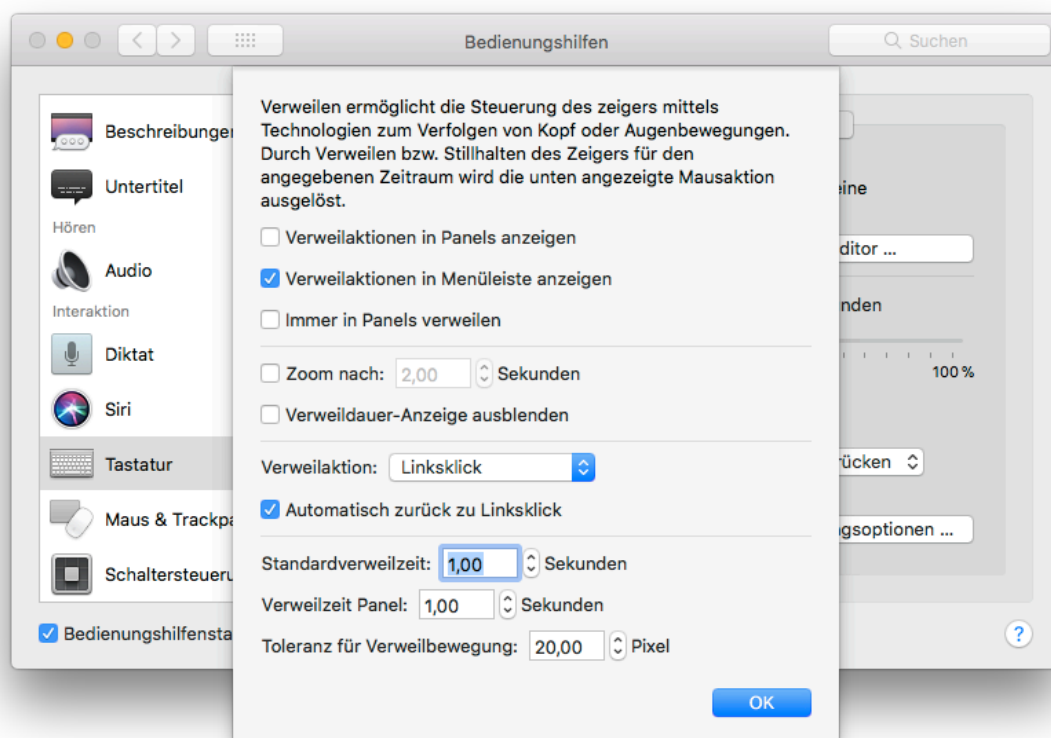
The additional keys represent the majority of the functions required in everyday life for the fluid operation of a computer.

Furthermore, there are four direct trigger buttons, which bring the "Safari" browser included in the system, the "Notes" application, "Mail" and "BeneGrid" directly into the foreground. The "read aloud" button allows you to play previously created texts.

Activate system-internal dwell control

If a dwell control has already been installed by the head / eye control, this step is not necessary. Therefore you may then consult the instructions of the head / eye control.

- 1) In the Keyboard Accessibility window, select the "Dwell Control Options" window. In "dwell action" select the menu item "left click".
- 2) Set default dwell time and movement tolerance according to the user's ability. It may be helpful to display the behavior actions in the menu and / or keyboard panel.
- 3) The running circle around the mouse position can be hidden with "hide dwell time display". Confirm with OK



Setting up Gyroscope Control

Settings in the app:

- 1) Open "GyrOSC" App on the iPhone / iPod Touch.
- 2) On the first page, enter the destination IP address (computer).
- 3) Set port to 8000.
- 4) On the second page deactivate all sensors except for „Quaternion“.
- 5) Back to the first page, under "Send" only the OSC message `/gyrosc/quat {w x y z}` should show up.
- 6) The different setups for different computers can also be saved on this page.



Settings in BeneGrid:

- 1) Open "BeneGrid" on the Mac.
- 2) If the IP address and port in "GyrOSC" are set correctly, the gyroscope control will take over the mouse pointer function. After the first startup, after 5 seconds, the current iPhone orientation is automatically calibrated to the center of the screen. This is indicated by vibration of the iPhone.
- 3) For manual calibration, a 5 second countdown is started by clicking on "Calibrate" during which an optimal positioning can be carried out. At the end of the countdown, the current iPhone orientation is calibrated to the center of the screen. Clicking on the top of the first page of the "GyrOSC" app, e.g. by a caregiver, immediately calibrates the current orientation of the iPhone on the center of the screen (without countdown).
- 4) The default orientation for iPhone is portrait mode (vertical) while looking at the display. When using / mounting the iPhone in landscape mode (horizontal), this must be calibrated by clicking on the "Horizontal" button.
- 5) Click on the ?- or i-button (depending on the variant) to open the Settings window. Here, the X / Y angle sensitivity (Angle) for the screen deflection and the smoothing of the unwanted (jitter) movements can be set.

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It is recommended to start with the default settings and to optimize the values when practicing the procedure.

- 6) In both the main window and the Settings window, a new position calibration can be performed at any time by clicking on the "Calibrate" or "Horizontal / Vertical" button.

- 7) By clicking on "Gyro On" (Ctrl / Cmd) the gyroscope control can be switched off completely
- 8) Important for helpers / carers is the F10 key, this can be used to pause the gyroscope control, for example to change settings on the computer. By clicking on the yellow pause window, the gyro control is reactivated.

Using "Notes" as an additional chat program

The system provided „Notes“ app is ideal for use as an additional chat program. It allows the entry of text and its automatic storage with date / time reference as so called notes.

This can be of great help to carers / helpers e.g. at a personnel change to understand the history up to the current state of the user.

In the program itself, the desired standard text size can be set once under "Settings".

With the "Vorlesen" key of the „on-screen keyboard+“, the generated text in „Notes" can be read aloud (selection or complete text). By clicking the button again, reading aloud can be stopped.

By installing the Apple Script "NotesStartup_runs" in the "Login Items", "Notes" is automatically started at each computer startup and a new note with date / time is created.

- 1) Open System Settings - Users & Groups
- 2) Select login item objects
- 3) Use drag & drop or press the + button to add the „NotesStartup_runs“ script. The next System startup will automatically launch "Notes" and sets the mouse focus on it.

