Resource Summary Report

Generated by NIF on Aug 10, 2026

Brain Computer Interface 2000 Software Package

RRID:SCR_007346
Type: Tool

Proper Citation

Brain Computer Interface 2000 Software Package (RRID:SCR_007346)

Resource Information

URL: https://www.bci2000.org/

Proper Citation: Brain Computer Interface 2000 Software Package (RRID:SCR_007346)

Description: BCI2000 is a general-purpose system for brain-computer interface (BCI) and adaptive neurotechnology research. It can also be used for data acquisition, stimulus presentation, and brain monitoring applications. The mission of the BCI2000 project is to facilitate research and applications in the areas described. Their vision is that BCI2000 will become a widely used software tool for diverse areas of real-time biosignal processing. In order to achieve this vision, BCI2000 system is available for free for non-profit research and educational purposes. BCI2000 supports a variety of data acquisition systems, brain signals, and study/feedback paradigms. During operation, BCI2000 stores data in a common format (BCI2000 native or GDF), along with all relevant event markers and information about system configuration. BCI2000 also includes several tools for data import/conversion (e.g., a routine to load BCI2000 data files directly into Matlab) and export facilities into ASCII. BCI2000 also facilitates interactions with other software. For example, Matlab scripts can be executed in real-time from within BCI2000, or BCI2000 filters can be compiled to execute as stand-alone programs. Furthermore, a simple network-based interface allows for interactions with external programs written in any programming language. For example, a robotic arm application that is external to BCI2000 may be controlled in real time based on brain signals processed by BCI2000, or BCI2000 may use and store along with brain signals behavioral-based inputs such as eye-tracker coordinates. Because it is based on a framework whose services can support any BCI implementation, the use of BCI2000 provides maximum benefit to comprehensive research programs that operate multiple BCI2000 installations to collect data for a variety of studies. The most important benefits of the system in such situations are: - A Proven Solution - Facilitates Operation of Research Programs - Facilitates Deployment in Multiple Sites - Cross-Platform and Cross-Compiler Compatibility - Open Resource Sponsors: BCI2000 development is sponsored by NIH/NIBIB R01 and NIH/NINDS U24 grants. Keywords: General, Purpose, Systems, Brain, Computer, Interface, Research, Application, Brain, Diverse, Educational, Laboratory, Software, Network, Signals, Behavioral, Eye, Tracker,

Synonyms: BCI2000

Resource Type: data processing software, software application, software resource

Funding: NIBIB R01 EB026439;
NINDS U24 NS109103;
NIBIB P41 EB018783

Resource Name: Brain Computer Interface 2000 Software Package

Resource ID: SCR_007346

Alternate IDs: nif-0000-00251

Alternate URLs: http://www.nitrc.org/projects/bci2000, http://www.bci2000.org, https://www.neurotechcenter.org/software

Record Creation Time: 20220129T080241+0000

Record Last Update: 20260810T040449+0000

Ratings and Alerts

No rating or validation information has been found for Brain Computer Interface 2000 Software Package.

No alerts have been found for Brain Computer Interface 2000 Software Package.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 180 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF .

Gupta D, et al. (2026) Methodological optimization for eliciting robust median nerve somatosensory evoked potentials for realtime single trial applications. Journal of neural engineering, 23(1).

Ding Y, et al. (2026) Adaptive Neural Reorganization Enables Real-Time Finger-Level Robotic Control in BCI-Naïve Stroke Survivors. bioRxiv : the preprint server for biology.

Mirpour K, et al. (2026) Linking cortical morphology and neurophysiological dynamics in Parkinson's disease. Scientific reports, 16(1).

Pan Y, et al. (2026) Efficient EEG-Based Person Identification: A Unified Framework from Automatic Electrode Selection to Intent Recognition. Sensors (Basel, Switzerland), 26(2).

Gupta D, et al. (2026) A portable closed-loop platform enabling cortical evoked potential operant conditioning: system development and validation of target intensity estimation. Biomedical physics & engineering express, 12(3).

Gupta D, et al. (2026) A portable cortical evoked potential operant conditioning system (C-EPOCS): System development. bioRxiv : the preprint server for biology.

Fernández-Rodríguez Á, et al. (2026) Evaluation of video background and stimulus transparency in a visual ERP-based BCI under RSVP. Medical & biological engineering & computing, 64(3), 1065.

Staveland BR, et al. (2026) Cortical-limbic circuit dynamics of approach-avoidance conflict in humans. Nature communications, 17(1).

Perez-Blanco JG, et al. (2026) An EEG-EMG-kinematics dataset from wrist pointing tasks for biomarker research in neurorehabilitation. Scientific data, 13(1).

Candrea DN, et al. (2025) Longitudinal study of gesture decoding in a clinical trial participant with ALS. medRxiv : the preprint server for health sciences.

Forenzo D, et al. (2025) Continuous Reaching and Grasping With a BCI Controlled Robotic Arm in Healthy and Stroke-Affected Individuals. IEEE transactions on neural systems and rehabilitation engineering : a publication of the IEEE Engineering in Medicine and Biology Society, 33, 3888.

Hawa Z, et al. (2025) Beta burst characteristics predict instantaneous hand movements in Parkinson's disease. Neurobiology of disease, 217, 107157.

Gupta D, et al. (2025) Frequency dependence of cortical somatosensory evoked response to peripheral nerve stimulation with controlled afferent excitation. Journal of neural engineering, 22(2).

Dede AJO, et al. (2025) Episodic memory involves transient and sparse connectivity aligned to both internal and external events. PLoS biology, 23(11), e3003481.

Gupta D, et al. (2025) Extracting robust single-trial somatosensory evoked potentials for non-invasive brain computer interfaces. Journal of neural engineering, 22(5).

Staveland BR, et al. (2025) Circuit dynamics of approach-avoidance conflict in humans. bioRxiv : the preprint server for biology.

Alijanpourotaghsara A, et al. (2025) B(RAIN)2-BRAIN integrated Resource for Anatomy and Intracranial Neurophysiology. Scientific data, 12(1), 442.

Chandravadia N, et al. (2025) Comparing P300 flashing paradigms in online typing with language models. PloS one, 20(2), e0303390.

Vissani M, et al. (2025) Spike-phase coupling of subthalamic neurons to posterior perisylvian cortex predicts speech sound accuracy. Nature communications, 16(1), 3357.

Donovan KM, et al. (2025) Vibrotactile auricular vagus nerve stimulation alters limbic system connectivity in humans: A pilot study. PloS one, 20(5), e0310917.