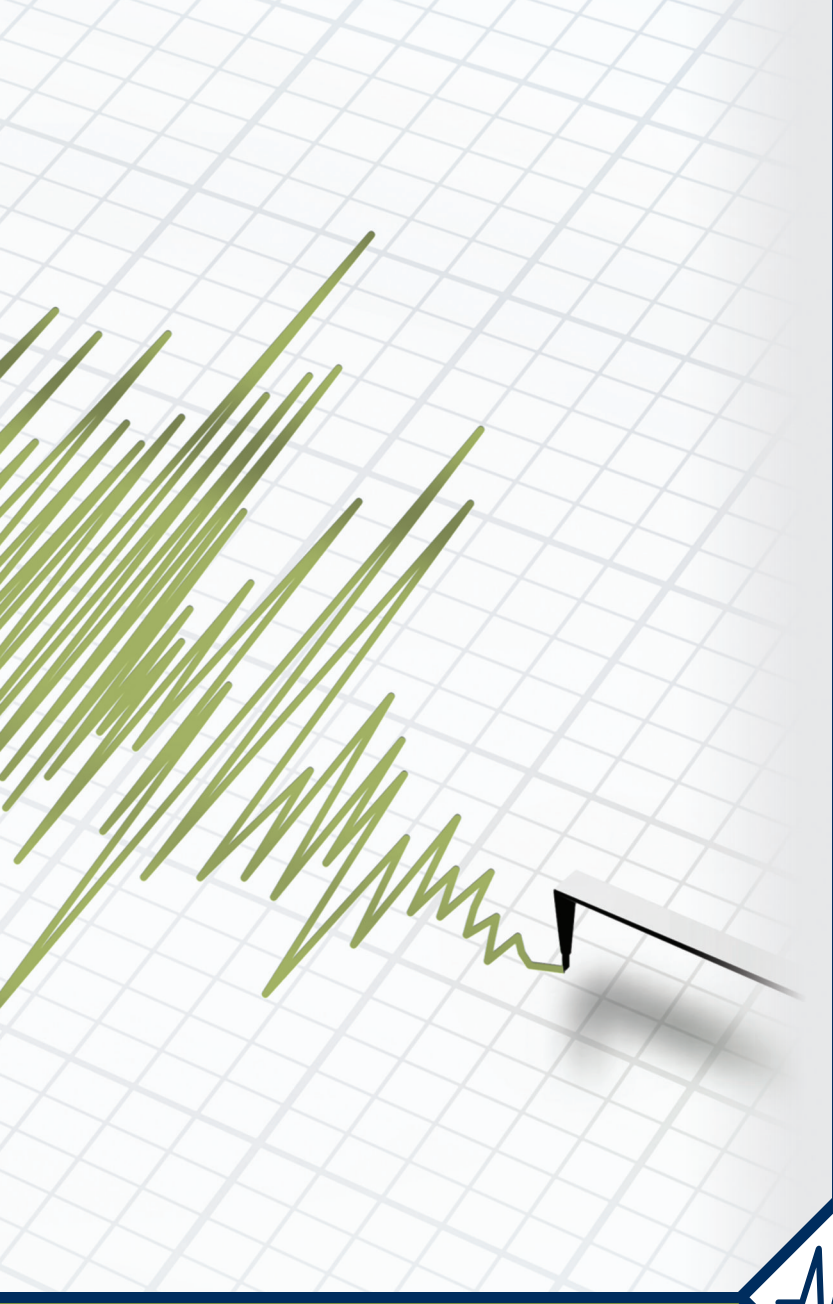


SEiSMOSIGNAL
SEiSMOSIGNAL 3D
SEiSMOSELECT
SEiSMOMATCH
SEiSMOARTIF
SEiSMOSPECT

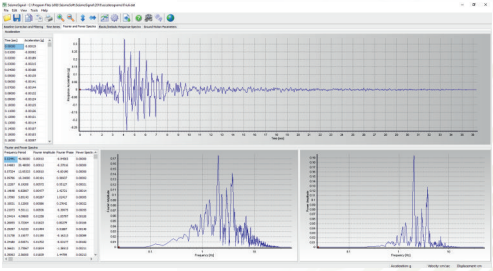
SEiSMOAPPS

SEISMOSOFT's SUITE
of Earthquake Tools

SeismoSignal, SeismoSignal 3D, SeismoSelect, SeismoMatch, SeismoArtif and SeismoSpect

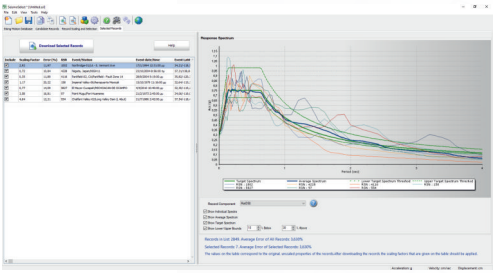
constitute a suite of programs that are used to carry out basic earthquake records operations, such as the processing of strong-motion data, the derivation of elastic & inelastic response spectra and Power & Fourier spectra, the calculation of a number of commonly used ground motion parameters, the adjustment of earthquake records to match a specific target response spectrum, the selection of real records that match a given spectrum, or the generation of artificial earthquake accelerograms.

SEISMOSIGNAL / SEISMOSIGNAL 3D



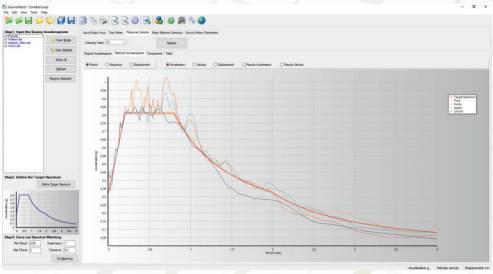
SeismoSignal constitutes an easy and efficient way to process strong-motion data, featuring a user-friendly visual interface and being capable of deriving a number of strong-motion parameters often required by engineer seismologists and earthquake engineers. SeismoSignal enables the baseline correction and the filtering of unwanted frequency content of the given signal and it is able to read accelerograms from text files in different formats. SeismoSignal 3D is an extension of SeismoSignal that allows for the simultaneous processing of acceleration components in 2 or 3 dimensions.

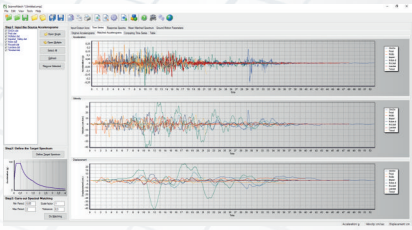
SEISMOSELECT



SeismoSelect is an easy and efficient way to search, select, scale and download ground motion data from different strong motion databases that are available on-line. Different criteria may be employed as the parameters of interest, with which the searches are carried out. These include a target response spectrum, different ground motion parameters, information regarding the event or the recording site. Based on these parameters the software carries out searches for sets of compatible records and provides ways to easily download the selected records.

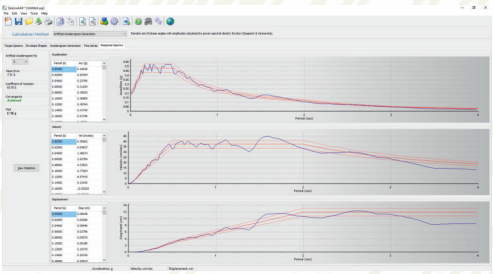
SEiSMOMATCH

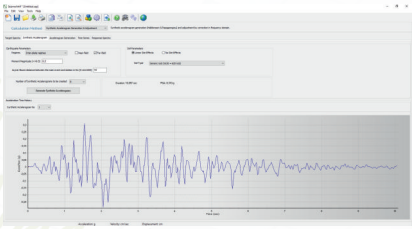




SeismoMatch is an application capable of adjusting earthquake records to match a specific target response spectrum, using the wavelets algorithm proposed by Abrahamson [1992] and Hancock et al. [2006] or the algorithm proposed by Al Atik and Abrahamson [2010].
Users have the opportunity to simultaneously match a number of accelerograms, and then obtain a mean matched spectrum whose maximum misfit respects a pre-defined tolerance. This software can thus be used in combination with records selection tools and records appropriateness verification algorithms to define adequate suites of records for nonlinear dynamic analysis of new or existing structures.

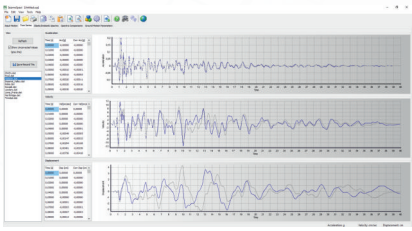
SEiSMOARTIF





SeismoArtif is an application capable of generating artificial earthquake accelerograms matched to a specific target response spectrum using different calculation methods and varied assumptions. Four different calculation methods may be employed for the generation of accelerograms (synthetic accelerogram generation & adjustment, artificial accelerogram generation, artificial accelerogram generation & adjustment and real accelerogram adjustment), employing a large range of available envelope shapes.

SEiSMOSPECT



SeismoSpect allows users to open accelerograms from text files in different formats, to create their own library of ground motion records and save them all in a single file making it easy to handle and share large numbers of records. It features a user-friendly visual interface and is capable of deriving a number of strong-motion parameters often required by engineer seismologists and earthquake engineers.

Seismosoft in brief

Founded in 2002, Seismosoft provides the earthquake engineering community with access to powerful and state-of-the-art analytical tools, such as SeismoBuild, SeismoStruct, SeismoSignal, SeismoSelect, SeismoMatch, SeismoArtif, SeismoSpect and FRP Designer.

With more than 1000 software license requests per month, and users in thousands of international academic/research institutions and practicing companies in more than 110 countries worldwide, Seismosoft is now recognised as a leading enterprise in this field. Seismosoft provides the full spectrum of earthquake engineering stakeholders, tools and methods that feature not only technical excellence but also efficiency and user-friendliness.

Ultimately, we hope to somehow contribute, even if modestly, to the continuous search for higher mitigation of the risks that earthquakes pose to humankind.

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EARTHQUAKE ENGINEERING SOFTWARE SOLUTIONS

How to Contact
Up to date Seismosoft contact details are always available on our website at

www.seismosoft.com

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