

Designação do projeto | MoST: Modeling, Querying and Interactive Visualization of Spatiotemporal Data

Código do projeto | POCI-01-0145-FEDER-032636 - PTDC/CCI-INF/32636/2017

Objetivo principal | Broader scope: Study and propose an integrated set of general-purpose data analysis tools to study the behaviour of spatiotemporal phenomena. INESC TEC Specific scope: study and propose automatic processes for identification, representation, and visualization of change; fast access methods and caching on spatiotemporal data.

Região de intervenção | Norte & Centro

Entidade beneficiária | INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência

Data de aprovação | 27-02-2018

Data de início | 01-06--2018

Data de conclusão | 30-09-2021

Custo total elegível | 227 098,43€

Apoio financeiro da União Europeia | FEDER: 193 033,67€

Apoio financeiro público nacional/regional | 34 064,76€

The project aims:

To study and propose an integrated set of tools for automating quantitative analysis processes on spatiotemporal data, guaranteeing levels of objectivity, precision, and reproducibility compatible with scientific work. Currently, technological advances made possible to collect large volumes of data regarding entities that evolve on time and space. Sometimes the data input volume and rate may be far superior to the existing capacity to analyze the data and extract relevant information. There are already well-known tools for processing static spatial data (eg. Geographic Information Systems), but support for dealing with time-space changing entities is limited, and it is often necessary to make a great effort with programming algorithms, that are complex and where solutions are for specific problems.

INESC TEC work within the MOST project continues the work carried out on efficient change detection and representation for the purpose of automatic / interactive visualization of phenomena with evolution in space and time (see figure). The work further carries out data structure and algorithms that support fast access methods and caching where data persistence is based on the temporal coherence / consistency of the data in relation to the time period that has the user interest. The objective of both fast access methods and caching is to reduce the time required for the data to become available, in the visualization pipeline, for the purpose of its use in filtering/analysis/rendering.

