SYHDA: System of Hydrological Data Acquisition and Analysis
A Software for Hydrological Analysis

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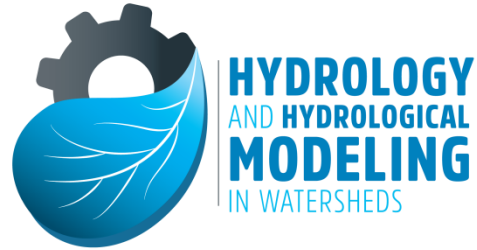
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UNIVERSIDADE FEDERAL DE PELOTAS — RS-BRASIL

UFPEL

HYDROLOGY AND HYDROLOGICAL MODELING IN WATERSHEDS

SYHDA — System of Hydrological Data Acquisition and Analysis

https://wp.ufpel.edu.br/hidrologiaemodelagemhidrologica/

INTRODUCTION

Initially, SYHDA was intended to support the elaboration and analysis of hydrological series for a deterministic and semi-conceptual rainfall-runoff model, which was developed by:

**Brazil**

United States of America

It has been successfully applied in Brazilian river basins of different sizes.
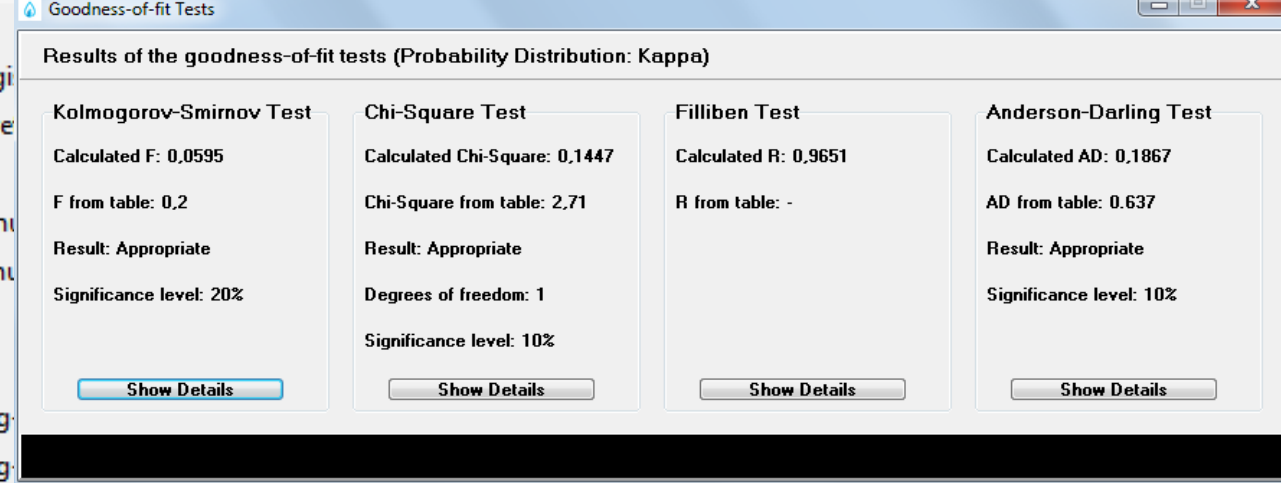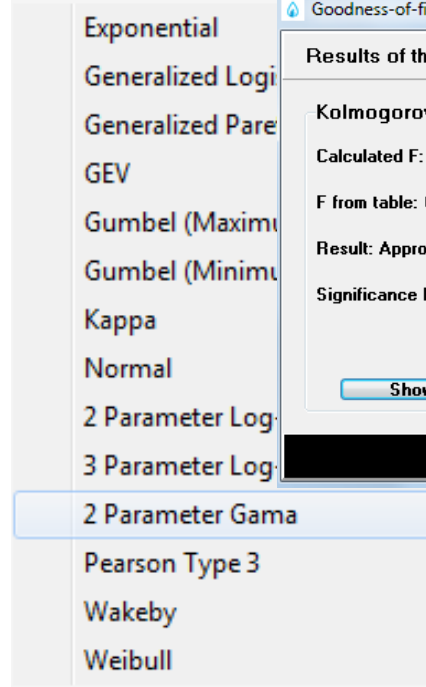
LASH's Module:
- Computer application for the acquisition and analysis of hydrological data sets.
- It was fully planned in Delphi®, for Microsoft Windows platform;
- All the algorithms implemented in SYHDA were tested.

SYHDA SOFTWARE: FUNCTIONALITY

- Calendar type - civil year or hydrological year;

- Importation of historical series of rainfall or streamflow (*.xlsx);

- Choice of time step and threshold associated with missing days;
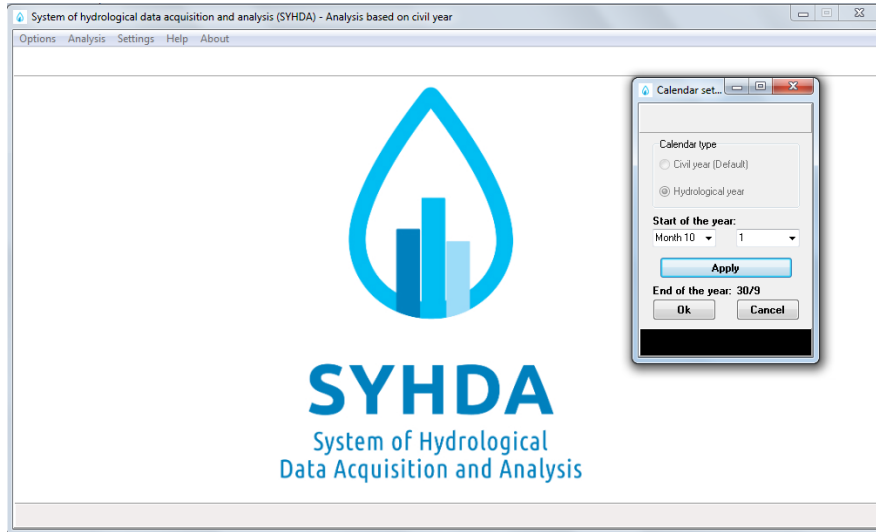
- Analysis tool:
  - Basic graphics;
  - Basic statistics;
  - Non-parametric tests;
  - Seasonality analysis;
  - At-site Frequency analysis.
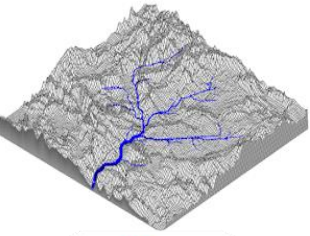 - Regional Frequency Analysis (Hosking and Wallis, 1997).
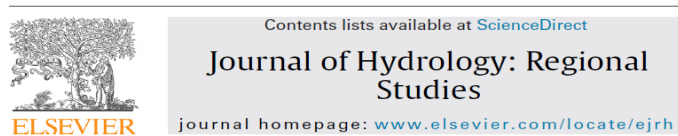
APPLICATIONS OF SYHDA

It can be observed that several functionalities are difficult to be found in other computer tools when considering the specific application for hydrology in watersheds;

Today, there are several studies in which SYHDA was employed as tool to perform statistical analyses, thus confirming the <u>excellent</u> performance of SYHDA.

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At-Site Flood Frequency Analysis Coupled with Multiparameter Probability Distributions

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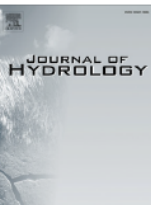
SOFTWARE COPYRIGHT

- SYHDA is protected by copyright according to the National Institute of Industrial Property;

- It can be acquired from the Research Group's website.

Thank you!
Questions?

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