

Content of folder **MATLAB\Example\PCA scenario**

This directory gives examples of performing principal component analysis in the SAISIR environment.

It shows :

- How to carry out PCAs
- How to display some useful graphs related to PCA

You must have a MATLAB license and have installed the SAISIR package (see MATLAB\installation directory.)

For starting the script,

- Run MATLAB
- Let MATLAB\Example\PCA scenario be the current folder.
- Type `pcademo` followed by [carriage return]

You must also look at the script itself using the MATLAB editor, and activate the script step-by-step.

It is useful in parallel to consult the **SAISIR** tutorials in MATLAB\documentation

The script performs two PCA typical to two chemometrical situations :

- Discrete data (such as laboratory data) in which the variables are heterogeneous
- Date from digitized curves such as spectra or chromatographic data (in such a case, the concept of spectral loading is meaningful).

For each function, you can consult the help using for example the command 'help normed_PCA' to see the help on 'normed_pca'

Note: The file CHEM1.CSV and spectra.csv used as example here has been obtained by

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The file contains experimental data from apricot fruit. Look at the PCA scenario folder for more information

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