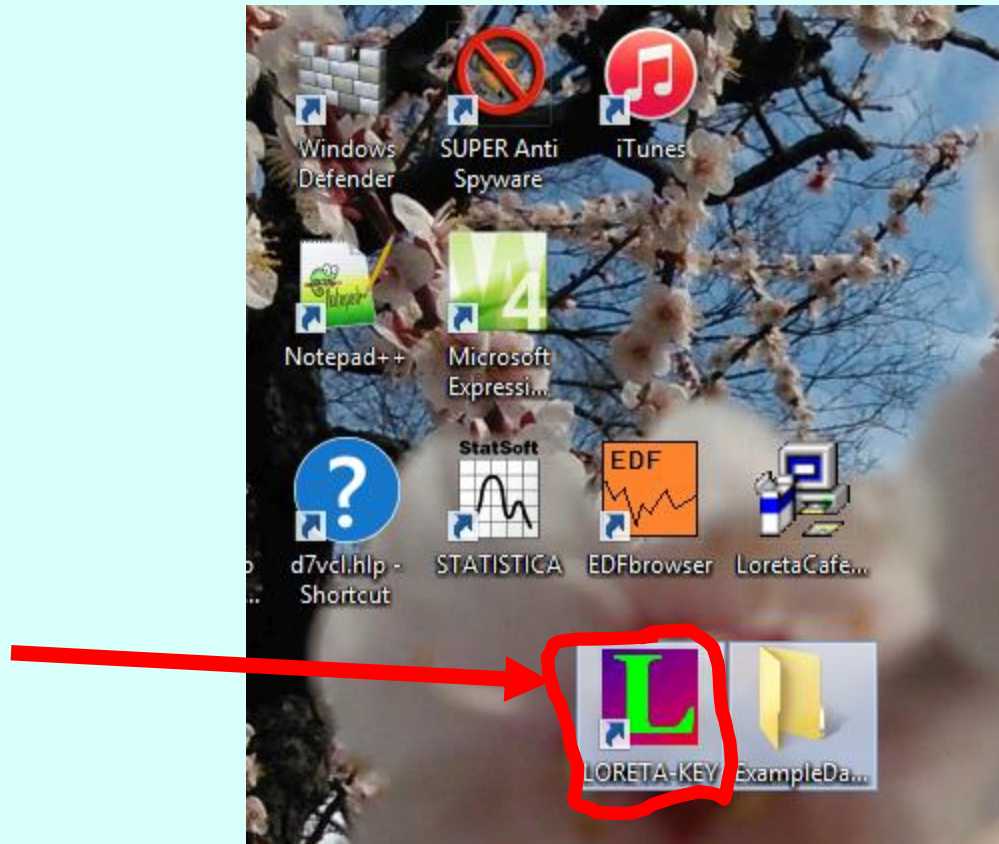
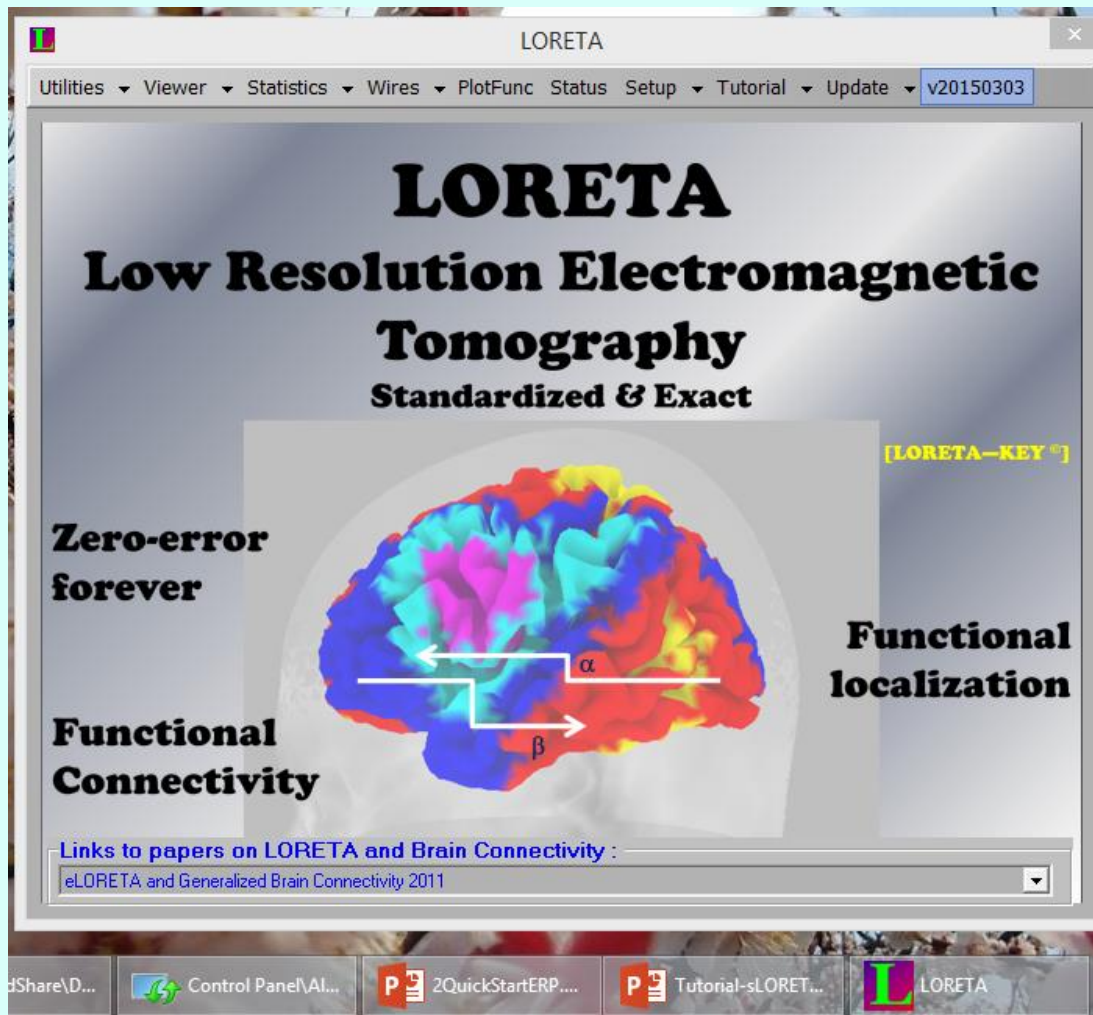


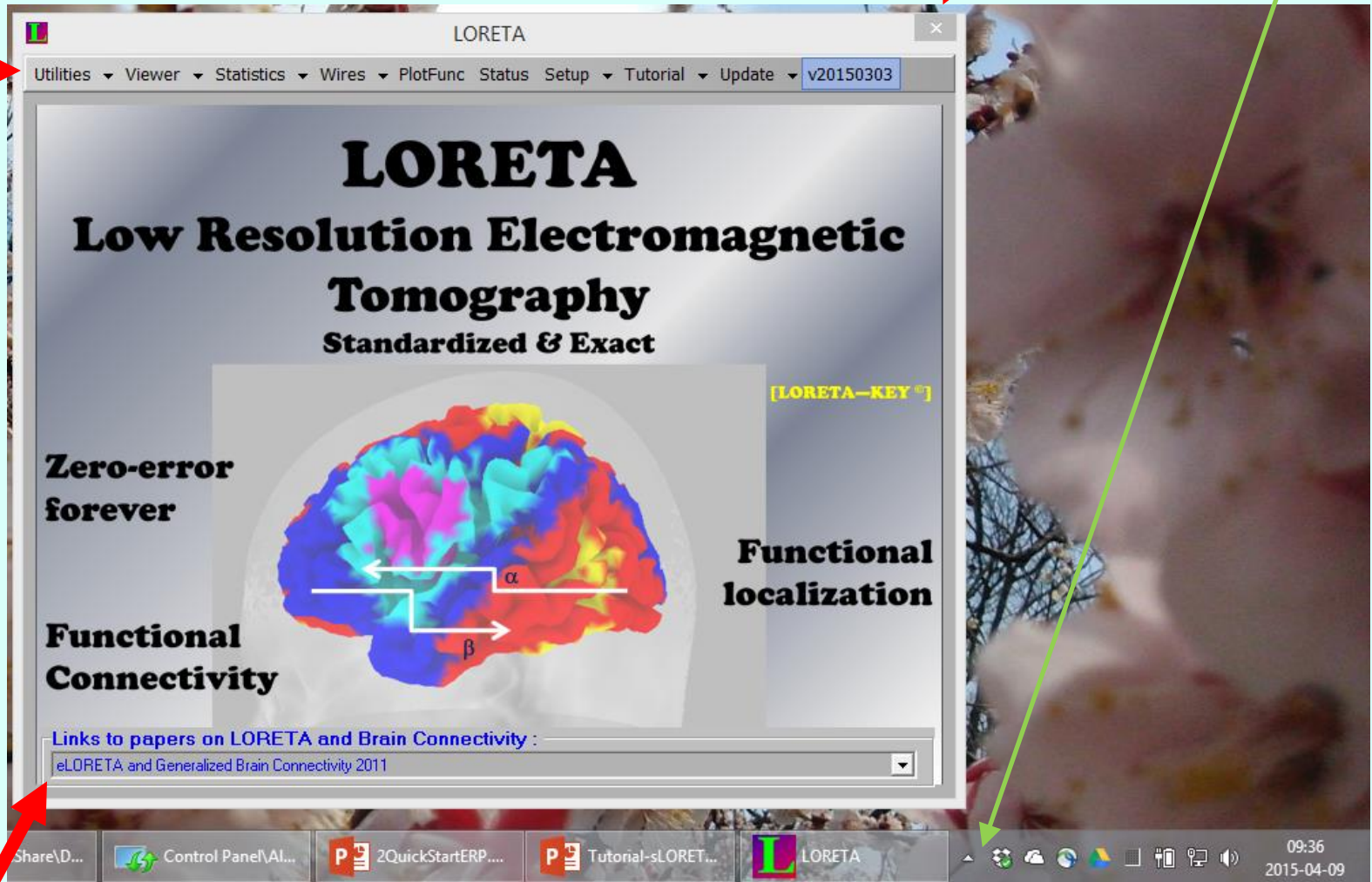
**Run LORETA (double click the icon on the desktop)**





Click here to close or minimize to taskbar

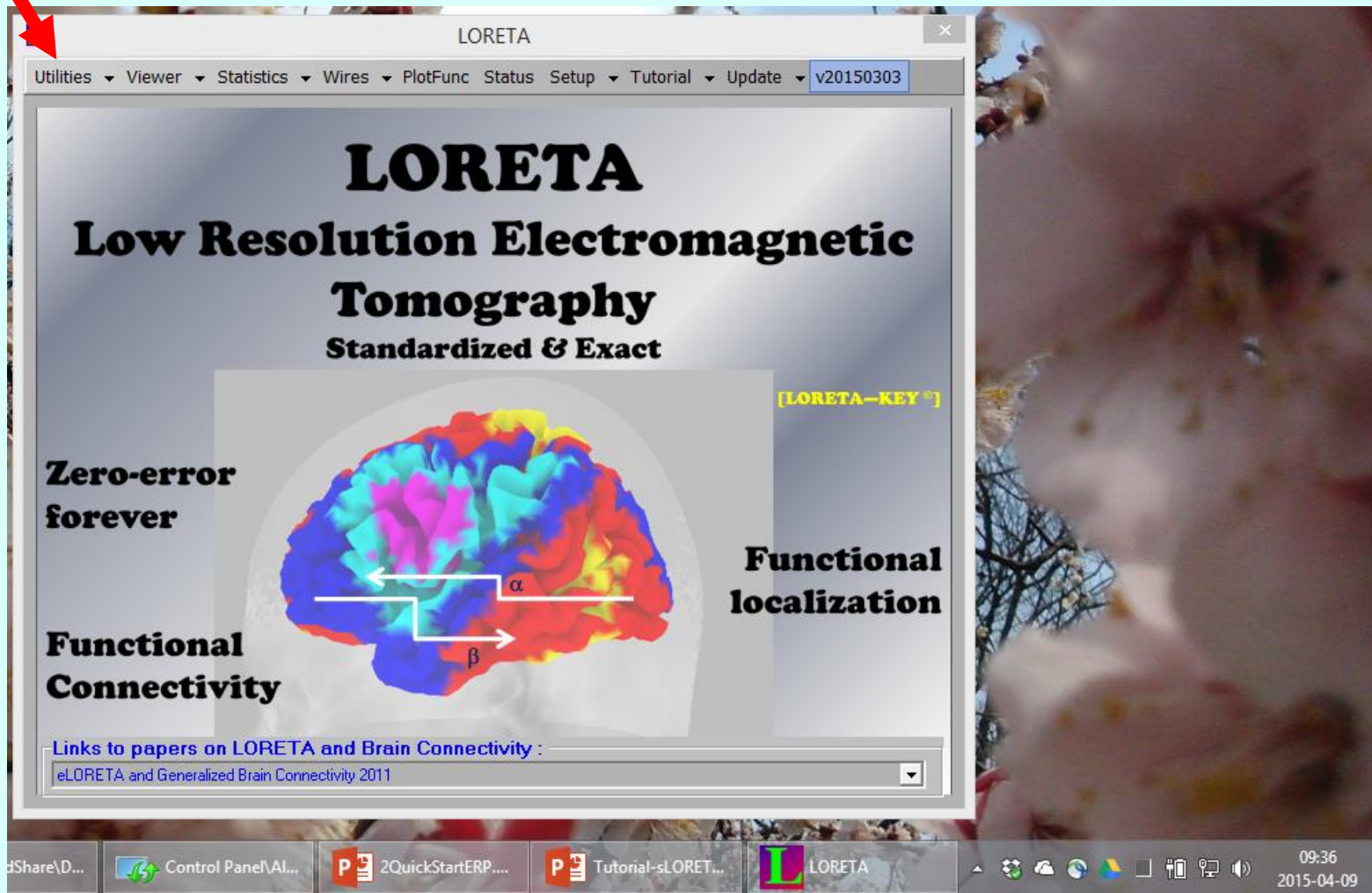
Options



Links to loreta and connectivity papers. Needs internet connection.



Run Utilities (click the button once)



- 0: Select "Electrode names to coordinates"  
1: Click DragDropUtil  
2: Find the Desktop  
3: Find the Example data folder  
4-5: Drag&Drop the file as indicated (red arrow)  
6: Click Go

- 7: Congratulations!  
*You just created a file with electrode coordinates, starting from a text file with electrode names (next slides explain some more)*  
8: NOTE the HINTS in the hint-bar, that sometimes appear as you move the mouse over different items (in this example the mouse is over "item number 5")

Utilities

Electrode names to coordinates

Text file with electrode names (one name on each line, first line=first electrode name)

D:\Library\Desktop\ExampleDataSets\ExampleERPdata(MichaelaEsslen)\List25e.txt

Clear names

Output file with electrode coordinates

D:\Library\Desktop\ExampleDataSets\ExampleERPdata(MichaelaEsslen)\List25e.sxyz

Change output file name

View output file with electrodes

Go

Alternatively, you can open the "Electrode Make" templates the 10/20, 10/10, or 10/5 % systems execute the program. When you're finished,

Drop file with list here

Drag/Drop Files/Folders

Example... ExampleERPdata(MichaelaEsslen)

Organize New folder

Desktop

OneDrive

Homegroup

roberto pascual

Goya

Libraries

Network

Control Panel

Recycle Bin

ExampleDataSets

ExampleEEGdata(PeterAnderer)

ExampleERPdata(MichaelaEsslen)

SomeSystemFiles

Name

Date modified

Type

ERPNonPaired 2015-04-09 10:50 File f

ERPPaired 2015-04-09 10:50 File f

Info.txt 2006-03-04 05:35 TXT I

List25e.txt 2006-03-04 05:36 TXT I

List25e.txt Date modified: 2006-03-04 05:36 Date created: 2015-04-09 10:50

TXT File Size: 110 bytes Availability: Available offline

File name: List25e.txt

Open Cancel

The software package includes some example data, that is installed by default on the desktop:

ExampleDataSets



Right-mouse-button-click, and OPEN

Utilities

Adjust for screen size Help DragDropUtil WindowsExplorer Screen Launch

Electrode names to coordinates

Registering real electrodes

Electrodes viewer

Electrode coordinates to transformation r

EEG/ERPs to sLORETA

EEGs to cross spectrum

Cross spectra to sLORETA

Averager

Merge files

EEG to epochs

Scaling and Baseline

Filtering Time/Electrodes

Format converter

ROI maker 1

ROI maker 2

ROI maker 3

sLORETA to ROIs

Connectivity 1

Time-varying cross-spectra

View time-varying cross-spectrum

Time-varying cross-spectra to sLORETA

Connectivity2

Microstate segmentation

Microstates (BatchMode)

BRL sLORETA norms

Conjunction

Conjunction SnPM

Hilbert transform

HilbTr single trial covariance

Single trial covariance

Global connectivity

ICA for EEG/ERP

ICA for lagged EEG/ERP

Electrode names to coordinates

Text file with electrode names (one name on each line, first line=first electrode name)

D:\Library\Desktop\ExampleDataSets\ExampleERPdata(MichaelaEsslen)\List25e.txt

Clear names

Output file with electrode coordinates

D:\Library\Desktop\ExampleDataSets\ExampleERPdata(MichaelaEsslen)\List25e.s...

Change output file name

View output file with electrodes

Go

Alternatively, you can open the "Electrode Make

templates the 10/20, 10/10, or 10/5 % systems

execute the program. When you're finished,

Drop file with list here

Drag/Drop Files/Folders

Example... ExampleERPdata(MichaelaEsslen)

Search ExampleERPdata(Mich...

Organize New folder

Desktop

OneDrive

Homegroup

roberto pascual

Goya

Libraries

Network

Control Panel

Recycle Bin

ExampleDataSets

ExampleEEGdata(PeterAnderer)

ExampleERPdata(MichaelaEsslen)

SomeSystemFiles

Name

ERPNonPaired

ERPPaired

Info.txt

List25e.txt

Date modified

2015-04-09 10:50

2015-04-09 10:50

2006-03-04 05:35

2006-03-04 05:36

Type

File f

File f

TXT I

TXT I

List25e.txt

Date modified: 2006-03-04 05:36

Date created: 2015-04-09 10:50

Size: 110 bytes

Availability: Available offline

File name: List25e.txt

Open

Cancel

## Info.txt

Data kindly provided by: Dr. Michaela Esslen (2004), The  
KEY Institute for Brain-Mind Research  
University of Zurich, Switzerland

Visual ERPs.

NE=25

NT=256

SampRate=256 Hz

List with electrode names in correct order: List25e.txt

Under folder ERPPaired:

17 subjects, under two different conditions:

A: Stimulation with pictures of flowers.

B: Stimulation with grey screen.

Possible analysis: Compare flowers vs grey screen (within  
subjects, paired design).

## List25e.txt

### List of electrode names:

Fp2

Fp1

F4

F3

C4

C3

P4

P3

O2

O1

F8

F7

T4

T3

T6

T5

Fz

Cz

Pz

PO4

PO3

FC2

FC1

CP1

CP2

Important note: Electrode  
order **MUST** correspond  
to the recordings.

**Incorrect order**  
**invalidates all**  
**analyses. It is the**  
**USER'S responsibility**  
**to ensure and always**  
**check that the order is**  
**correct.**



# Difference between the new (2015) and old (2008) software packages

In the new software (2015), all file operations are performed with the DragDropUtil, or simply with the file explorer provided by the windows operating system. The old software used a fixed directory display in the left panel of the Utilities.

The left panel in the new Utilities program (2015) contains all the analysis programs. The old software used TABS on the top for selecting the analysis programs.

There are many new options!

**The old tutorial will continue, with the understanding that files are NOW dragged and dropped with the DragDropUtil or with windows' file explorer.**