Entropic Profiler User Manual

The "Entropic Profiler" tool is available through an easy to use web based interface. Next we introduce the main application's input and output screens along with a description of all its features.

Figure 1 presents the initial main page of the application's web interface seen from a common web browser. Figure 2 briefly describes each of the commands and options available to the user. The user can interact with the application through the web form in that page.
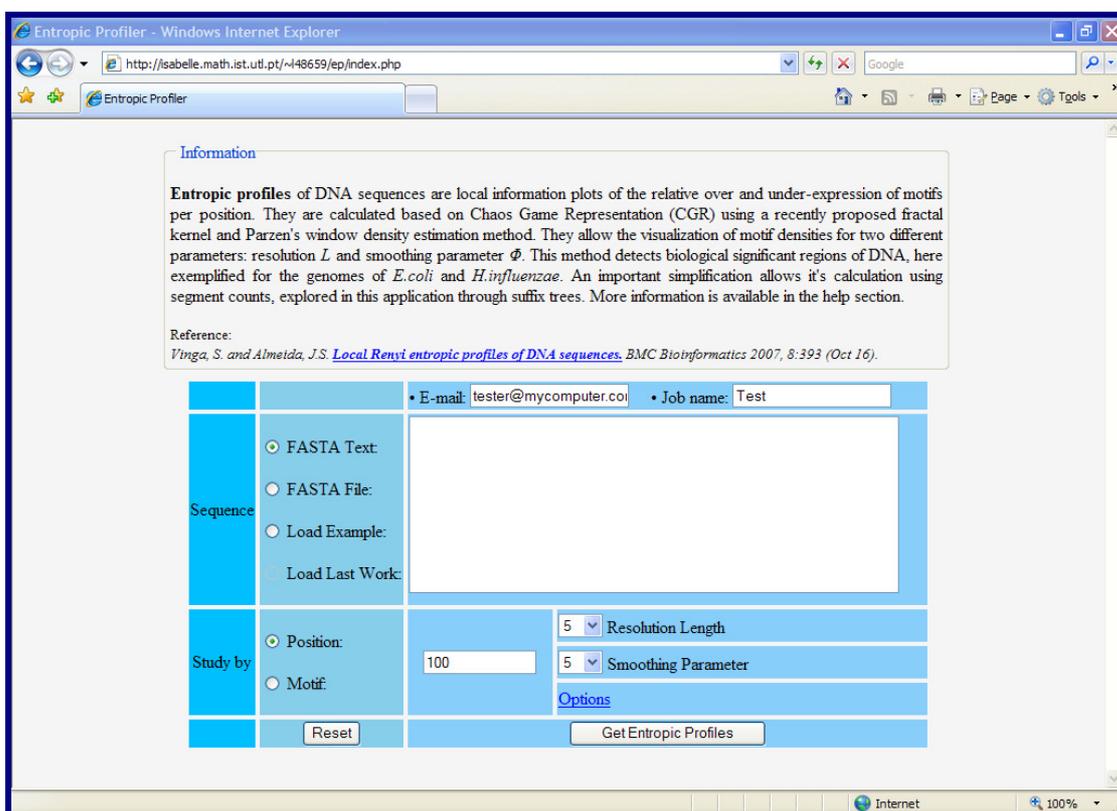
Figure 1 – Entropic Profiler´s interface viewed from a web browser.
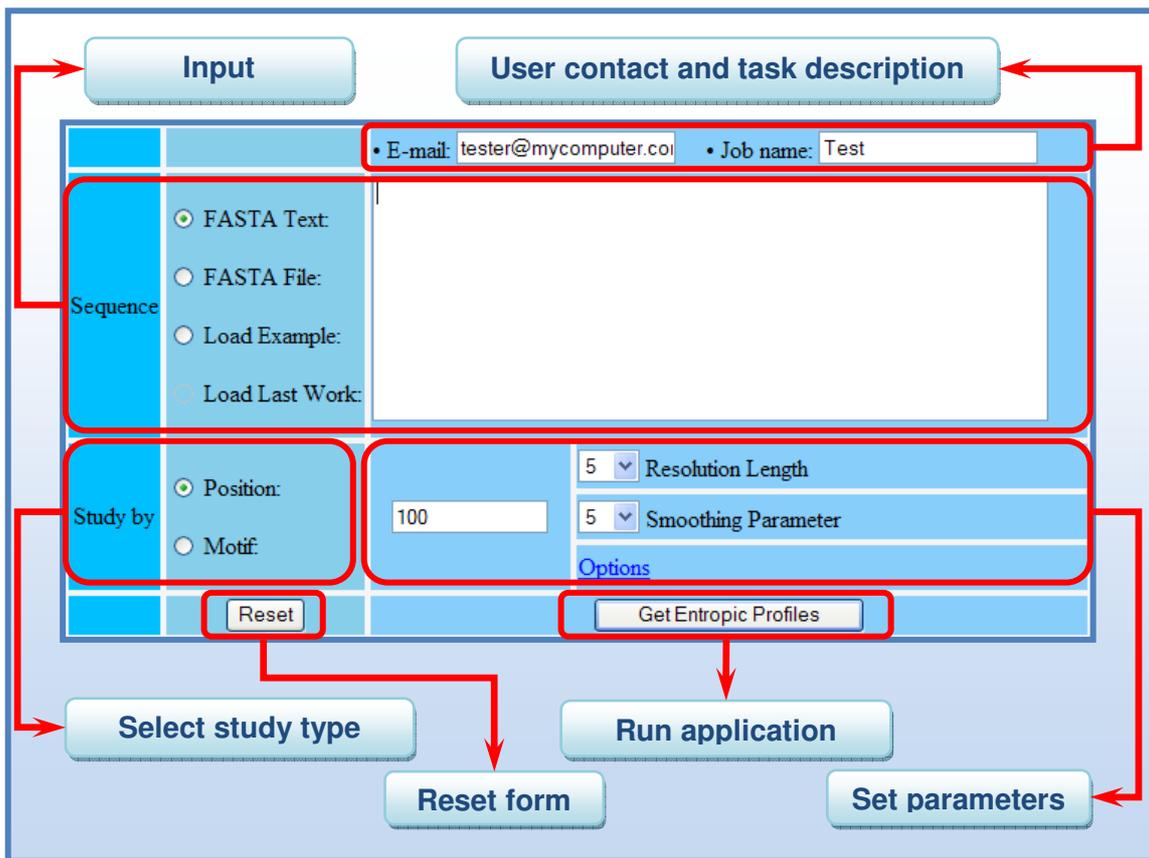
Figure 2 – Entropic Profiler's main window.

Loading sequences

To be able to get results in the Entropic Profiler, a DNA sequence is required. There are several ways to input a DNA sequence through the web interface:

(a) a sequence can be typed symbol by symbol or copied and pasted from another text source directly to the text area

(b) a file in the FASTA format containing the sequence can be selected and uploaded to the server

(c) some predefined sample sequences are already stored on the server and ready to be used

(d) if the user has previously worked on a sequence and it is still stored on the server, an option to load the last saved sequence and parameters will also be available to easily continue the previous work

These distinct ways of loading a sequence from the web interface are shown in Figure 3.
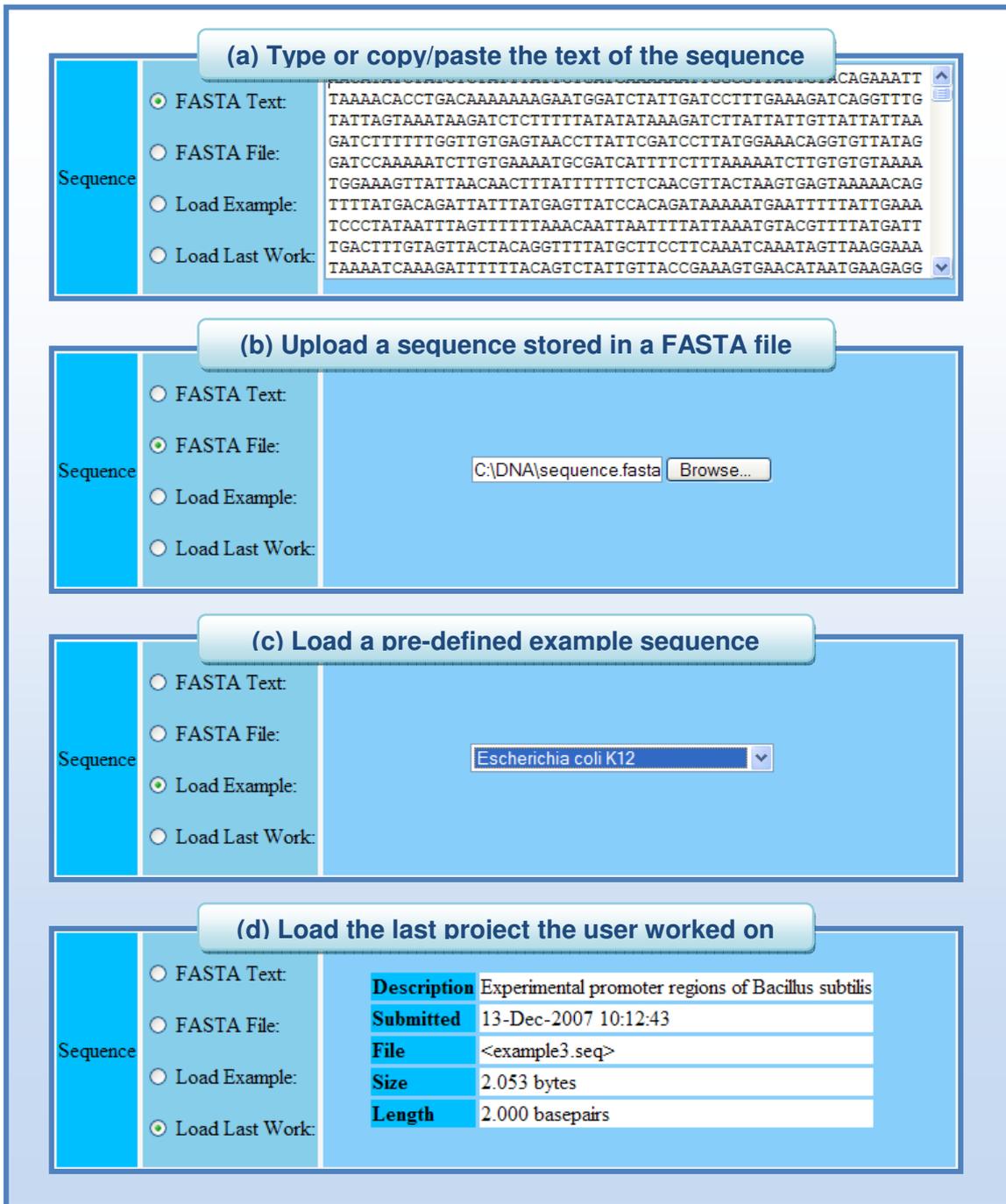
Figure 3 – Different ways to load a sequence.

Study by position

After selecting a sequence, the user has the ability to choose to study the sequence by a particular position or by a motif of interest. After specifying the position to study and the parameters for the application and pressing the "Get Entropic Profiles" button, the results are presented in a new webpage. Figures 4 and 5 show the input and output screens for the position study as well as a description of all the parameters and output plots and values.
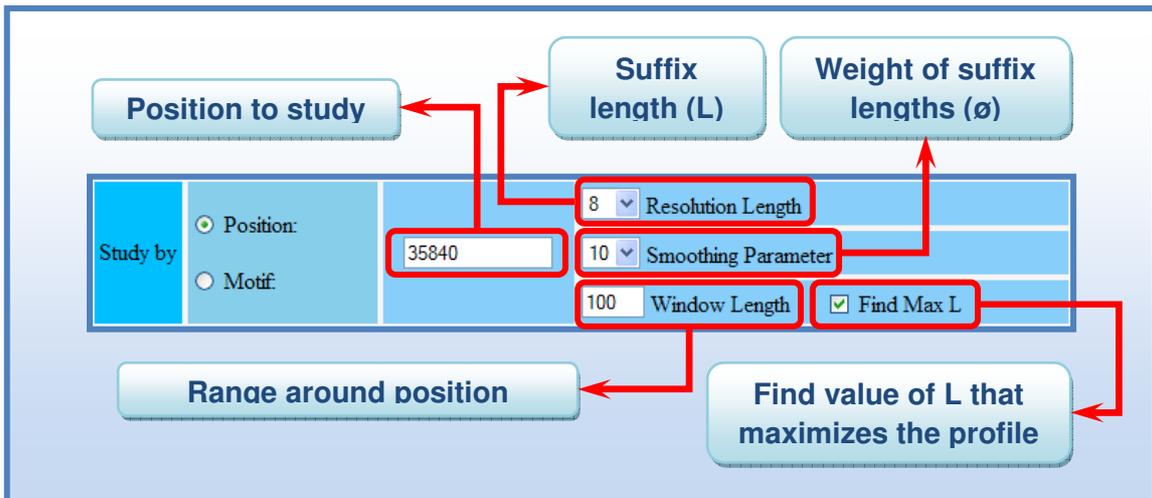
**Figure 4 – Studying a sequence by position.**
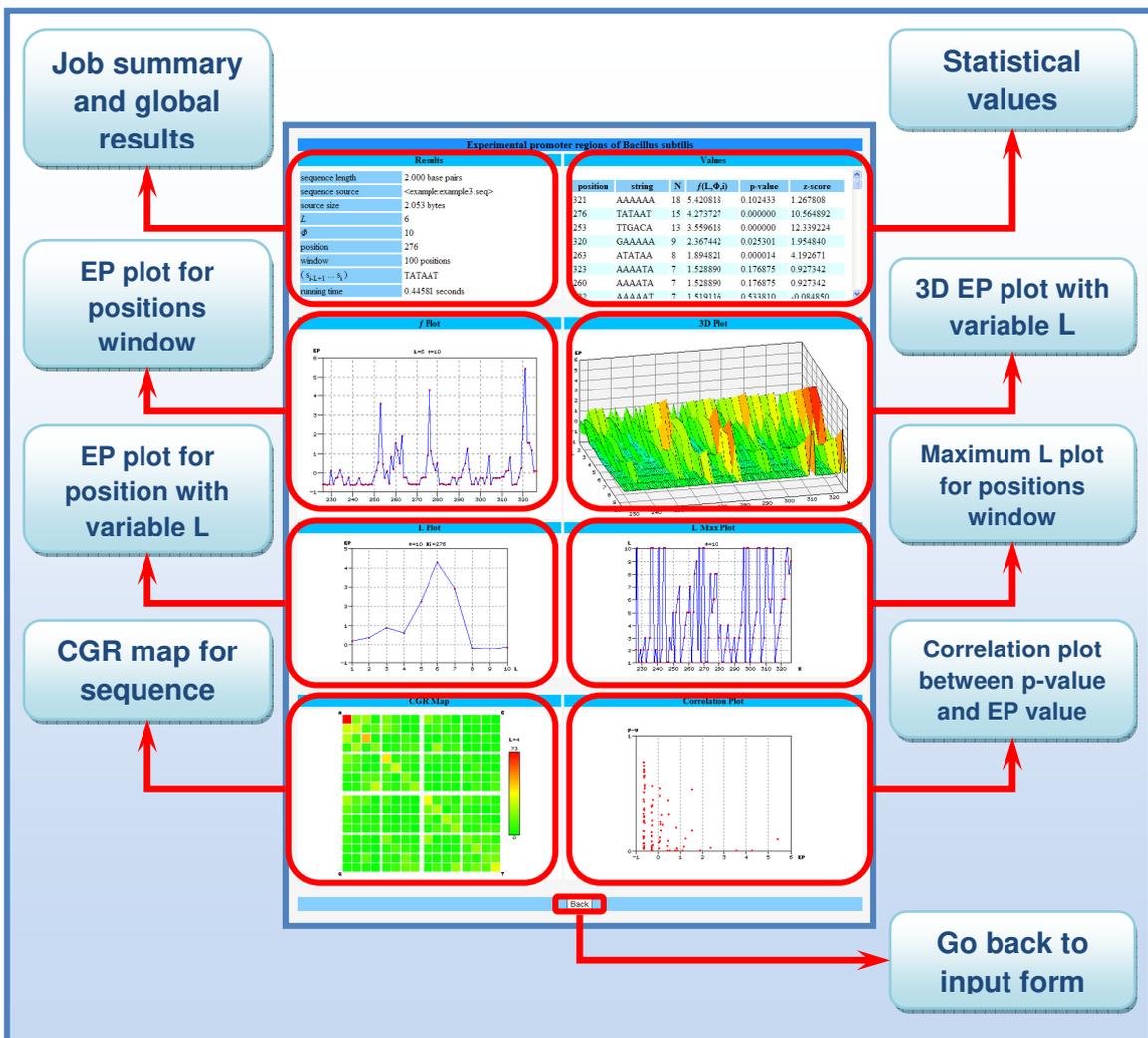
Figure 5 – The results of the study by position.

Study by motif

If the user is interested on a specific motif inside the sequence, a search by motif can also be performed. The user has the ability to input the motif string by introducing the symbols one by one using the available buttons. A specific section of the sequence can also be searched for instead of the whole sequence.

Figures 6 and 7 describe the parameters and the results of the motif study.
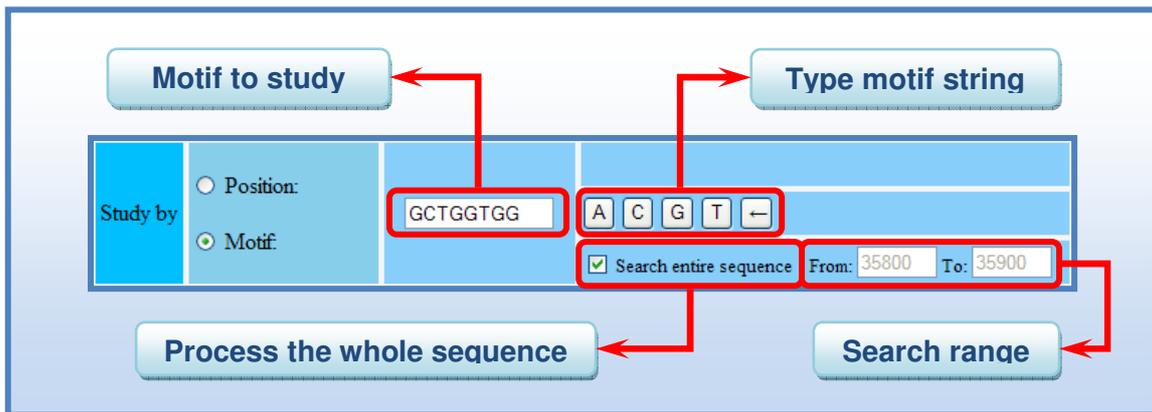

Figure 6 – Performing a study by motif.

Figure 7 – Results of the study by motif.