

Introduction

In this part, we present features to extend the DR. GEO features or to adapt to a given pedagogical set.

The first feature is the *macro-construction*. It lets record a construction sequence in one unique command. Once recorded, it can be replayed and saved in a file to be open later in another sketch.

The DR. GEO Smalltalk script is another feature to extend DR. GEO behaviour. A script is really a sketch item like any other ones. As input, it expects zero, one or more references to geometric items from the sketch and its returns a reference whose print representation is pined in the sketch. It is in fact programmed functions¹ pined in a sketch, and evaluated each time the whole sketch is updated (i.e. when the sketch need to be redrawn). A DR. GEO Smalltalk script is useful for its returned object or for its side effect, it depends on the wished effect by the user.

One step further, DR. GEO proposes the Smalltalk sketches. This time the whole interactive geometry sketch is described as Smalltalk source code. Its interest is the functional approach to describe a sketch² compare to the linear, declarative way to construct a sketch with the mouse.

¹Or procedure for Pascal programming language users.

²For example recursively