the input file is divided into three sections: header, list of objects with their attributes, and a list of tasks to perform. Each section is separated from the next by the token "# # #".
The header section is composed of two types of tokens:
<Code>, starting with at least 2 characters "X" or "Y" in any order and in even numbers (eg XX, XYXY, XXXXXX, XXXXXY). or they are followed by a number of 2 or 5 digit or a word composed of lowercase alphabetic letters (in an odd number, at least 3).
optionally <Code> is finished by an even number of characters "+".
<date> a date in the format "DD / MM / YYYY" between 05/02/2012 and 12/04/2012. remember that February of 2012 was made up of 29 days.

<date> and <Code> tokens can appear in the header section in any order, but it must be ensured that both appear at least once. (you can manage with the grammar).

the section of the list of objects is formed by a list of at least 2 OBJECTS even in number. each element of the list is composed of a <name> (that is the name of the object), followed by ":" on the one <id-oggetto> (which is optional). by a symbol ":" and a block, bounded by "[[" and "]]". within the block is also a list of empty <attributi> separated by ",". <attribute> each is composed of a <name>, the symbol ":" and a positive integer. <name> is any sequence of letters, numbers and "_" characters, starting with a letter; <id-oggetto> is the "%" symbol followed by a number between -31 and 145.
the operations section is a possibly empty list of <operazioni> with an even number of elements. <operation> each is composed of a pair <oggetto-attributo> (a <name> that represents the name of the object. characters "->" and a <name> that represents the name of the attribute). <oggetto-attributo> represents the value of an attribute of an object. will have to be obtained through access to a global structure populated in the previous section.
There `<oggetto-attributo> after the": "character and a list of <equazioni> <equazione> where each is separated from the others by the character", ". each <operation> is terminated by the ":" character.

each <equazione> is any combination of integers. pairs <oggetto-attributo> and classical arithmetic operators (+, -, *, /), with relative parentheses.

purpose
the compiler by analyzing the second section will populate a data structure containing all the information required to perform the third section. This data structure will be the only global variable allowed.
in the third section each <equazione> must be performed and the result multiplied by the value <oggetto-attributo> positioned at the beginning of each <operation>. the result of each multiplication must be printed on the screen. use synthesized attributes to run the equations and the inherited attributes to access the value <oggetto-attributo> placed at the beginning of <operation> global variables are not allowed.
at the end of each <operation> (remember that a <operation> is every single element of <operazioni>) is required to print the minimum value among the results of the individual equations. in this case, global variables are not allowed.
for example with the following <operation> and with x-> n equal to 2:
x-> n: I-10: 1 +2, 4, 5, 6, 7;
the program will have to print:
6
8
10
12
14
Minimum: 6