

LAW AND FINANCIAL NEW CHALLENGES IN AGRI BUSINESS

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REZUMAT. În această lucrare sunt prezentate aspecte economice și de drept care se ocupă cu aplicații ale activelor fixe în domeniul agri business-ului. Din punct de vedere economic a avea de-a face cu active poate influența decisiv situația financiară a unei companii. Din punct de vedere legal același aspect poate influența structura companiei și implicit patrimoniul acționarilor, precum și situația obligațiilor.

Cuvinte cheie: bază de cunoștințe, aplicații ale activelor fixe, eliminarea activelor fixe, modernizarea activelor, piese de cunoștință

ABSTRACT. In this paper are presented economic and law issues that deal with fixed assets applications in agri-business administration field. From economic point of view dealing with assets can decisively influence the company's fiscal situation. From legal point of view the same issue can influence the company's patrimony structure and implicitly the shareholders and bonds situation.

Key words: knowledge base, fixed assets applications, disposal of fixed asset, asset modernization, knowledge pieces

1. INTRODUCTION

“Expert systems” are those programs designed to replace or to help the expert in the fields where the necessity of human expertise is recognized.

Among methods and paradigms specific to Artificial Intelligence, expert systems, are the most “well-known”, being the first imposed in practice, overcoming the framework of theoretical research; their novelty, unconventional feature is somehow obsolete, the membership to “artificial intelligence” is questionable at this time.

Expert systems copy human experts reasoning on knowledge available to them in a certain manner, multiply eventually this knowledge and explain their own reasoning lines.

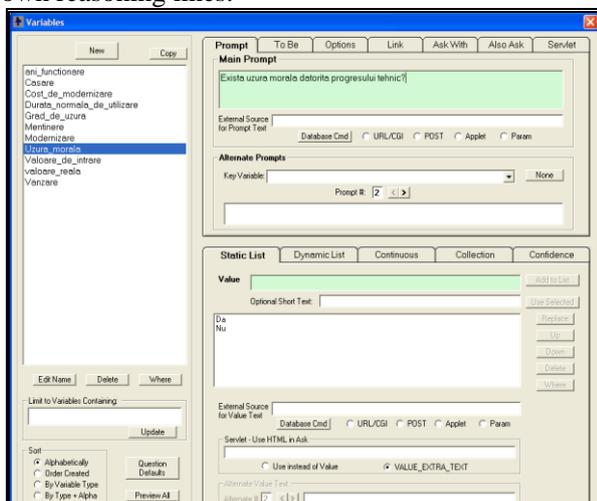


Figure 1 Expert system

2. DETERMINING THE CONDITION OF AN ASSET

It is proposed to create an expert system prototype in order to decide how to evaluate assets; the prototype will be named FIXED ASSETS having in view the knowledge subject, this thing being reflected in figure 1

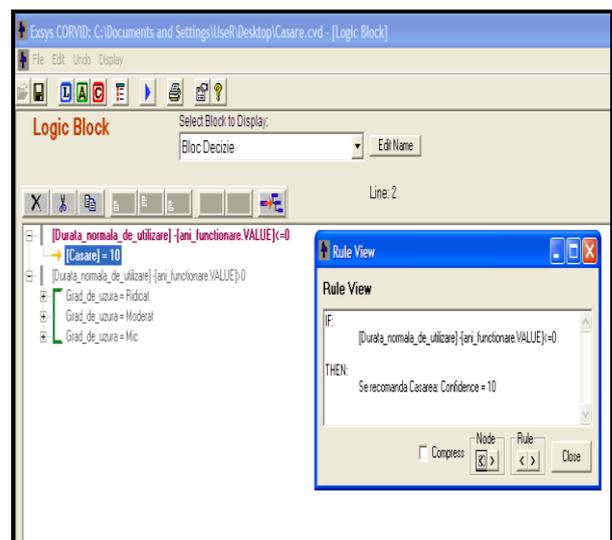


Figure 2 Creation of a knowledge base

In the present case four goals are considered:

1. Disposal of fixed asset
2. Sale of assets
3. Asset modernization
4. Asset maintenance

After entering the four goals one can proceed to formulate the first rule. From ones experience and respecting the general principles applied when designing software products it is recommended that the analysis of problem to be solved, to introduce the following knowledge pieces: goals, questions, and variables specific to EXSYS Corvid. Generator.

From summary analysis of field and problem to be solved one has the following knowledge pieces

Goals:

1. Disposal of fixed asset
2. Sale of assets
3. Asset modernization
4. Asset maintenance

Questions:

1. What is the normal duration of use (years) ?
2. How many years of operation have passed?
3. What is the degree of usage?
4. How much is the moderization cost (in euro)?
5. What is the input value (in euro)?
6. There is obsolescence due to tehnological progress?

Variables:

1. The normal duration of use
2. Operating years
3. Input value
4. Disposal
5. Sale
6. Maintenance
7. Modernization
8. Overuse
9. Modernization cost
10. Obsolescence
11. Real value

Rules formulation requires enabling Logic Block page, which allows you to add, to modify, to delete and to move a rule, as highlighted in the figures given below:

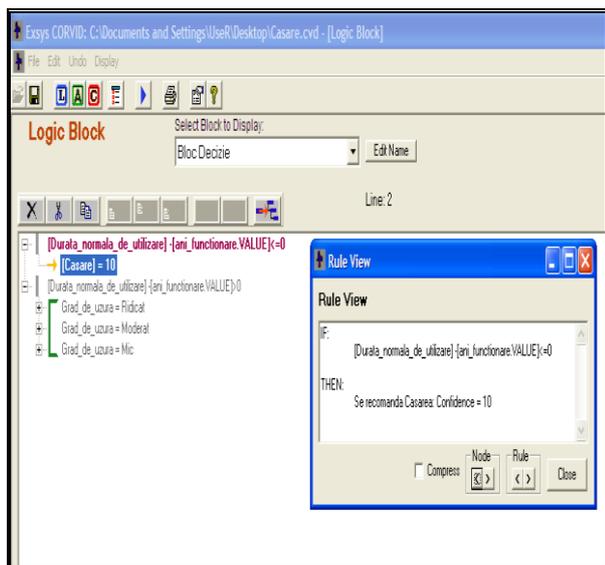


Figure 3 Rule entering window

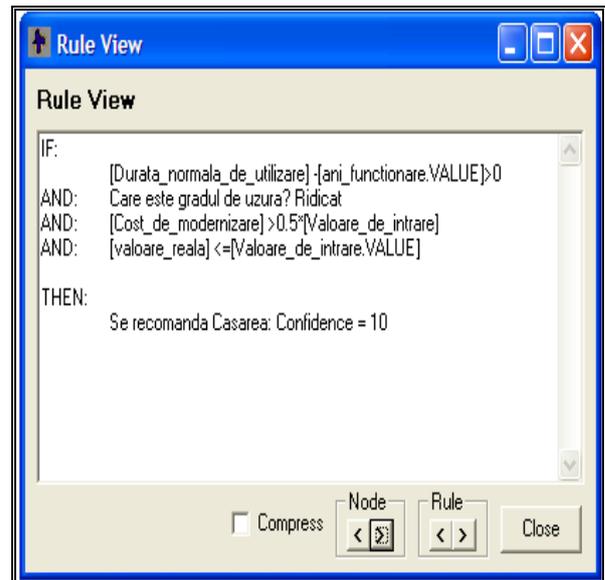


Figure 4 Rule viewing window

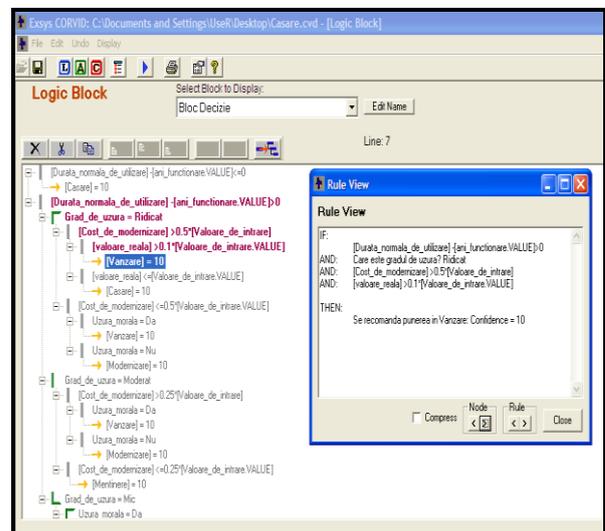


Figure. 5 Logic Block editing window highlighting a compose rule

The control panel allows you to print as a file or directly to the printer all knowledge pieces continuously or on different pages. Knowledge base related to FIXED ASSETS prototype was redirected in "FIXED ASSETS" folder from EXSYS working directory. That will be presented below:

Subject:

Determining the condition of an asset

Author:

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Starting text:

EXSYS CORVID EXPERT SYSTEM OF DECISION MAKING CONCERNING EVALUATION OF FIXED ASSETS

Ending text:

FOLLOWING EXPERT SYSTEM CONSULTATION IT IS REACHED THE FOLLOWING CONCLUSIONS:

RULE NUMBER: 1
 IF:
 [Normal_duration_of_use]-
 [operation_years.VALUE]<=0
 THEN:
 Cassation is recommended: Confidence = 10

RULE NUMBER: 2
 IF:
 [Normal_duration_of_use]
 [operating_years.VALUE]>0
 AND: What is the degree of usage? High
 AND: [Modernization_cost] >0.5*[Input_value]
 AND: [real_value] >0.1*[input_value.VALUE]
 THEN:
 Sale is recommended: Confidence = 10

RULE NUMBER: 3
 IF:
 [Normal_duration_of_use]
 [operating_years.VALUE]>0
 AND: What is the degree of usage? High
 AND: [Modernization_cost] <=0.5*
 [input_value.VALUE]
 AND: There is obsolescence due to technological
 progress? No
 THEN:
 Modernization is recommended: Confidence
 = 10

RULE NUMBER: 4
 IF:
 [Normal_duration_of_use]
 [operating_years.VALUE]>0
 AND: What is the degree of usage? Low
 AND: There is obsolescence due to
 technological progress? No
 THEN:
 Maintenance is recommended: Confidence = 10

3. CONCLUSION

Expert systems are those programs of Artificial Intelligence able to achieved intuition and thinking performances like human experts.

Exsys Corvid represents a proven approach system of automation knowledge, expert systems based on a close examination of what is required in order to build and implement decision making systems in today's Internet-oriented world.

Corvid system is designed to allow you capturing easily knowledge about economic and law issues that deal with fixed assets in business administration and not only, but also it provides online (internet, intranet, wireless) – rapidly and effectivly, knowledge to build strong consulting applications.

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