

[de Kleer and Brown 81]

de Kleer, J., and Brown, J.S.
Mental Models of Physical Mechanisms and their Acquisition.
In *Cognitive Skills and their Acquisition*, . Erlbaum, 1981.

[de Kleer and Brown 82]

de Kleer, J., and Brown, J.S.
Foundations of Envisioning.
In *Proceedings of the AAAI*. AAAI, 1982.

68. EXPERT

A programming system for building **expert systems** based on classification problems, written in FORTRAN. Has been used primarily to develop models in medicine. Knowledge is represented in hypotheses, findings and decision rules with confidence factors. Evaluates its rules in an ordered manner, rather than relying on **backward chaining**. Incorporates useful front-end facilities for user-interaction.

Contributor: Luis Jenkins.

References

[Waterman and Hayes-Roth 82]

Waterman, D. and Hayes-Roth, F.
An Investigation of Tools for Building Expert Systems.
Technical Report R-2818-NSF, Rand Corporation, June, 1982.

[Weiss and Kulikowski 79]

Weiss, S.M. and Kulikowski, C.A.
EXPERT: A System for Developing Consultation Models.
In *Proceedings of IJCAI-79*, pages 942-947. International Joint
Conference on Artificial Intelligence, 1979.

69. FAST PATTERN RECOGNITION TECHNIQUES

A technique for classifying very large bit vectors either by means of special purpose hardware or software has been developed. The system operates in two phases, a 'learning' phase and a 'use' phase. During the 'learning' phase examples of bit vectors together with a classifications are presented while during the 'use' phase unknown vectors are presented to the system and classified. The technique used is based on the Bledsoe and Browning n-tuple methodology.

Contributor: Igor Aleksander.

Reference

[Aleksander and Stonham 79]

Aleksander, I and Stonham T.J.
A Guide To Pattern Recognition Using Random-Access Memories.
IEEE Journal of Computers & Digital Techniques 2(1), 1979.