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# Knowledge Representation and Management

**Microsoft Research a Reality  
- Machine Translation**

**Backward Chaining - Expert  
Systems Fundamentals**

**Fuzzy Logic Concepts**

**Knowledge Based  
Adaptive Training**

**A Theory of Intelligent  
Thought**

**Also:**  
AI Directory,  
Data Mining,  
Expert Systems Development,  
Intelligent Tools,  
Languages,  
Modeling and Simulation,  
Neural Networks,  
Object Oriented Development,  
Training and Conferences



# QMC TNA PROGRAM

*For Windows*

The QMC Thermal Network Analyzer (TNA) Program is a differential equation analyzer for thermal, radiation, fluid flow, stress, and process systems using a finite difference numerical integration technique. Steady state & transient analysis are provided through an easy block and stream flow sheet graphical interface. The QMC TNA Program provides

thermal and fluid component design to full system performance. Based on the NASA SINDA methodology, graphical time dependent results provide solution techniques and accuracy for precise assessment and confirmation. Interfaces with MS Word & Excel. 100% satisfaction.

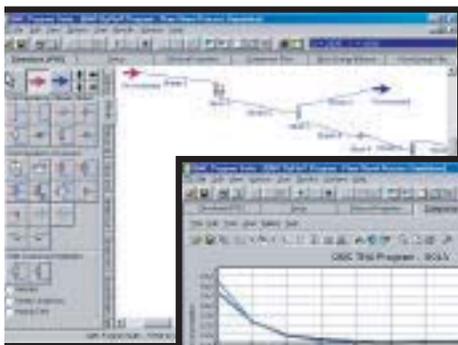
## THERMAL NETWORK ANALYZER

- Process Design
- Process Control
- Optimization
- Reliability
- Simulation
- Sensitivity Studies
- Heat Transfer
- Power Generation
- Energy Systems
- Fire Protection
- Pipeline Systems
- Fluid Flow

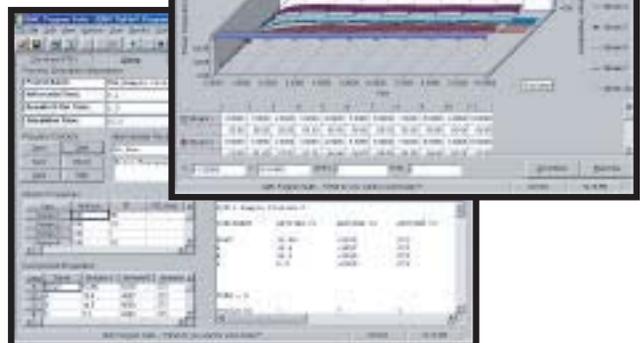
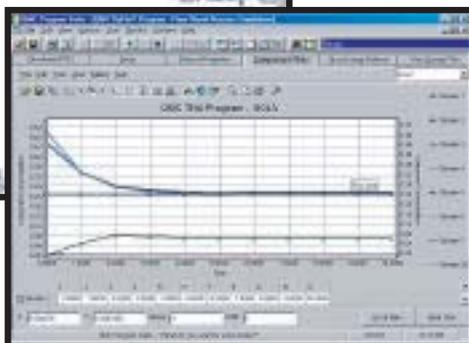


- Chemical
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# The Practical Way to Combine Rules with Java



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**Flexible:** OPSJ rules can operate directly on all Java classes, including classes created by tools such as CORBA and COM. You do not have to write interface code or make any special declarations.

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### 1995

- 9 #1 Intelligent Tools
- 9 #2 Fuzzy Logic / Neural Networks
- 9 #3 Object Oriented Development
- 9 #4 Knowledge-Based Systems
- 9 #5 AI Languages
- 9 #6 Business Applications

### 1996

- 10 #1 Intelligent Applications
- 10 #2 Object Oriented Development
- 10 #3 Neural Networks / Fuzzy Logic
- 10 #4 Knowledge-Based Systems
- 10 #5 Genetic Algorithm & Modeling
- 10 #6 Business Applications

### 1997

- 11 #1 Intelligent Applications (Intelligent Web Search Engines)
- 11 #2 Object Oriented Development (Expert Systems on the Web)
- 11 #3 Neural Nets / Fuzzy Logic (Expert Systems)
- 11 #4 Knowledge-Based Systems (Data Mining)
- 11 #5 Data-Mining and Genetic Algorithm (Expert Systems)
- 11 #6 Business Applications (Neural Networks)

### 1998

- 12 #1 Intelligent Tools & Languages (Automated Agents)
- 12 #2 Object Oriented Development (Java Based AI)
- 12 #3 Neural Nets / Fuzzy Logic (Modeling)
- 12 #4 Knowledge-Based Systems (Modeling Methodology)
- 12 #5 Data Mining and Discovery (Knowledge Management)
- 12 #6 Business Applications (Neural Networks)

### 1999

- 13 #1 Intelligent Tools & Languages (Knowledge Verification)
- 13 #2 Rule and Object Oriented Development (Data Mining)
- 13 #3 Neural Nets & Fuzzy Logic (Searching)
- 13 #4 Knowledge-Based Systems (Fuzzy Logic)
- 13 #5 Data Mining (Simulation and Modeling)
- 13 #6 Business Applications (Machine Learning)

### 2000

- 14 #1 Intelligent Applications
- 14 #2 Intelligent Web Applications & Object Oriented Development
- 14 #3 Intelligent Web Portals, Neural Networks and Fuzzy Logic
- 14 #4 Knowledge Management, Expert Systems, Intelligent EBusiness
- 14 #5 Data Mining, Modeling & Simulation, Genetic Algorithms

### 2001

- 15 #1 Intelligent Applications
- 15 #2 AI Web Apps, OOD, AI Language
- 15 #3 Intelligent Business Rules & Fuzzy Logic (Petri Nets in Prolog, Knowledge for Sale)
- 15 #4 Knowledge Management and Decision Support (Brief History of AI)
- 15 #5 Data Mining, Modeling, Simulation and Analysis, Natural Language Processing
- 15 #6 AI to Combat Terrorism (Rule-Based Expert Systems, Hal - 2001, Multi-agent Network Planning)