

JIS

JAPANESE INDUSTRIAL STANDARD

Decision Tables

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Contents

	Page
1. Scope	1
2. Definitions	1
3. Format	3
3.1 Decision Tables	3
3.2 Condition Entries	4
3.3 Action Entries	4
4. Relationships between Table Elements	5
4.1 Condition	5
4.2 Actions	5
4.3 Rules	5
5. Relationships between Decision Tables	5
5.1 Sequence Relationship	6
5.2 Selection Relationship	6
5.3 Repetition Relationship	6
5.4 Nesting Relationship	8
5.5 Combinations of Relationships	9
6. Interpretation of Decision Tables	10
6.1 Methods of Interpretation	10
6.2 Completeness	10
Appendix 1 Procedures for Preparation	11
Appendix 2 Examples of Decision Tables	15

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J I S

Decision Tables

X 0125-1986

1. Scope

This Japanese Industrial Standard specifies the basic format of single-hit decision tables and the relevant definitions. Moreover, it recommends the conventions for preparation and use.

- Remarks 1. This standard is concerned with the use of decision tables in the documentation of computer-based information systems and does not specify other uses such as for the representation program statements.
2. The format and conventions for the preparation and use of multiple-hit decision table are not the objects.

2. Definitions

For the purpose of this standard, the following definitions apply. Other terms and the definitions are given in "Definitions" of JIS X 0001.

- (1) decision table A table of combinations of all conditions that are to be considered in the description of a problem and of actions to be taken.

Note: Hereinafter, this is occasionally called simply as table.

- (2) single-hit decision table A decision table where any set of conditions will be satisfied by one, and only one, rule. In the case not liable to confusion, it may be called simply as decision table.
- (3) multiple-hit decision table A decision table where at least one set of conditions will be satisfied by two or more rules (see Remark 2. in 1.).

Applicable Standard:

JIS X 0001 -Glossary of Terms Used in Information Processing

Reference Standard:

JIS X 0121- Documentation Symbols and Conventions for Data, Program and System Flowcharts, Program Network Charts and System Resources Charts

Corresponding International Standard:

ISO 5806-Specification of single-hit decision tables

- (4) rule A single column through the condition and action entry parts of the table, defining a unique set of conditions to be satisfied and the set of actions to be taken in consequence. A rule is satisfied if all conditions meet the condition entries of the rule.
- (5) ELSE-rule The rule indicating the action to be taken for all combinations of conditions not covered by the entries designated with values in the table.

Remark: The ELSE-rule may not be written.

- (6) condition A description of a contingency to be considered in the representation of a problem or a reference to other procedures to be considered as part of the condition.
- (7) action A description of an operation to be taken for the solution of a problem.
- (8) condition entry An indication of the relevance of a condition to a particular rule.
- (9) action entry An indication of the relevance of an action to a particular rule.
- (10) condition stub A list of all the conditions to be considered in the description of a problem.
- (11) action stub A list of all the actions to be taken in the description of a problem.
- (12) table heading The name or other means of referencing a decision table from other documents. Alternatively, or in addition, a clear description of the table may be inscribed.
- (13) initialization section A list of unconditional actions to be executed sequentially before the first condition is examined. This may be written in the row which follows that of the table heading. The initialization section is optional.
- (14) limited entry table A decision table where all the conditions and actions are completely described in the stub parts without reference to the rules in the entry part (see Example 1 of Appendix 2).
- (15) extended entry table A decision table where the common items of conditions and actions are described in the stub parts but are incomplete. The descriptions are completed by the values specified in the rules of the entry parts (see Example 2 of Appendix 2).
- (16) mixed entry table A decision table which contains both of the rows of limited and extended entries (see Example 4 of Appendix 2).

Remark: In practical terms, extended entry table will include limited entries too and therefore, strictly speaking, any extended or mixed entry table is a mixed entry table which may be transformed into a limited entry table (see Example 3 of Appendix 2).

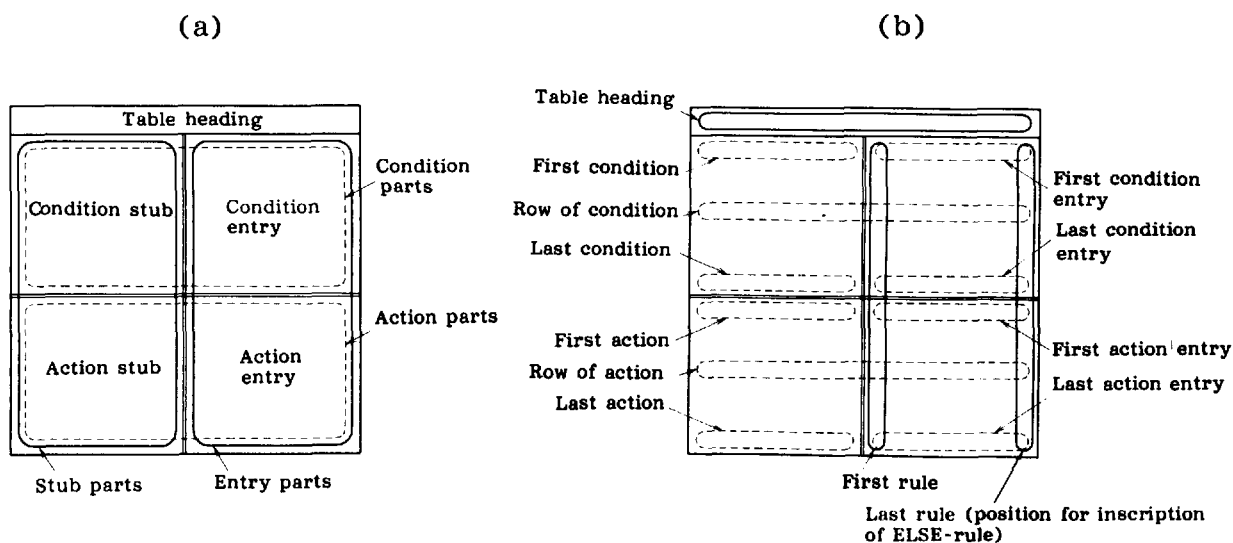
- (17) complete table A decision table where for all combinations of condition entries there exists a satisfying rule.

3. Format

3.1 Decision Tables The general format of a decision table is given in Fig. 1.

The body of the table shall be divided into four parts by double lines or thick lines drawn to separate the condition parts from action parts and stubs from entries.

Fig. 1. General Format and Names



Remark: To facilitate the reading, it is allowed to write each condition and each action by separating with thin horizontal line and each rule by separating with thin vertical line. Every condition, every action and every rule may be named for unique reference.

3.2 Condition Entries The inscription of condition entries shall be as follows. However, for Y and N, other binary notation may be used.

Form of entry	Meaning within rule	Application
Y	The condition corresponding to Y shall be fulfilled in satisfying this rule (Y = "Yes").	Limited entries
N	The condition corresponding to N shall be fulfilled in satisfying this rule (N = "No").	
Text, a value or a code	The text, value or code completes the condition incompletely described. The condition thus completed shall be fulfilled in satisfying the rule. If a code is used, its meaning shall be notified.	Extended entries
—	The condition corresponding to " — " is not relevant in satisfying the rule or the condition is logically impossible in the context of the rule. For the purpose to emphasize the impossibility, "#" may be written instead of " — ".	Any type of entry

3.3 Action Entries The inscription of action entries shall be as follows:

Form of entry	Meaning within rule	Application
X*	The stated action shall be taken when this rule is satisfied.	Limited entries
Text, a value or a code	The text, value or code completes the action incompletely described. The action thus completed shall be taken when the rule is satisfied. If a code is used, its meaning shall be notified.	Extended entries
—	The stated action shall not be taken when this rule is satisfied.	Any type of entry

Note * In general, write English capital letter X.