

**KAWASAKI STEEL TECHNICAL REPORT**

No.20 ( June 1989 )

*Information Systems*

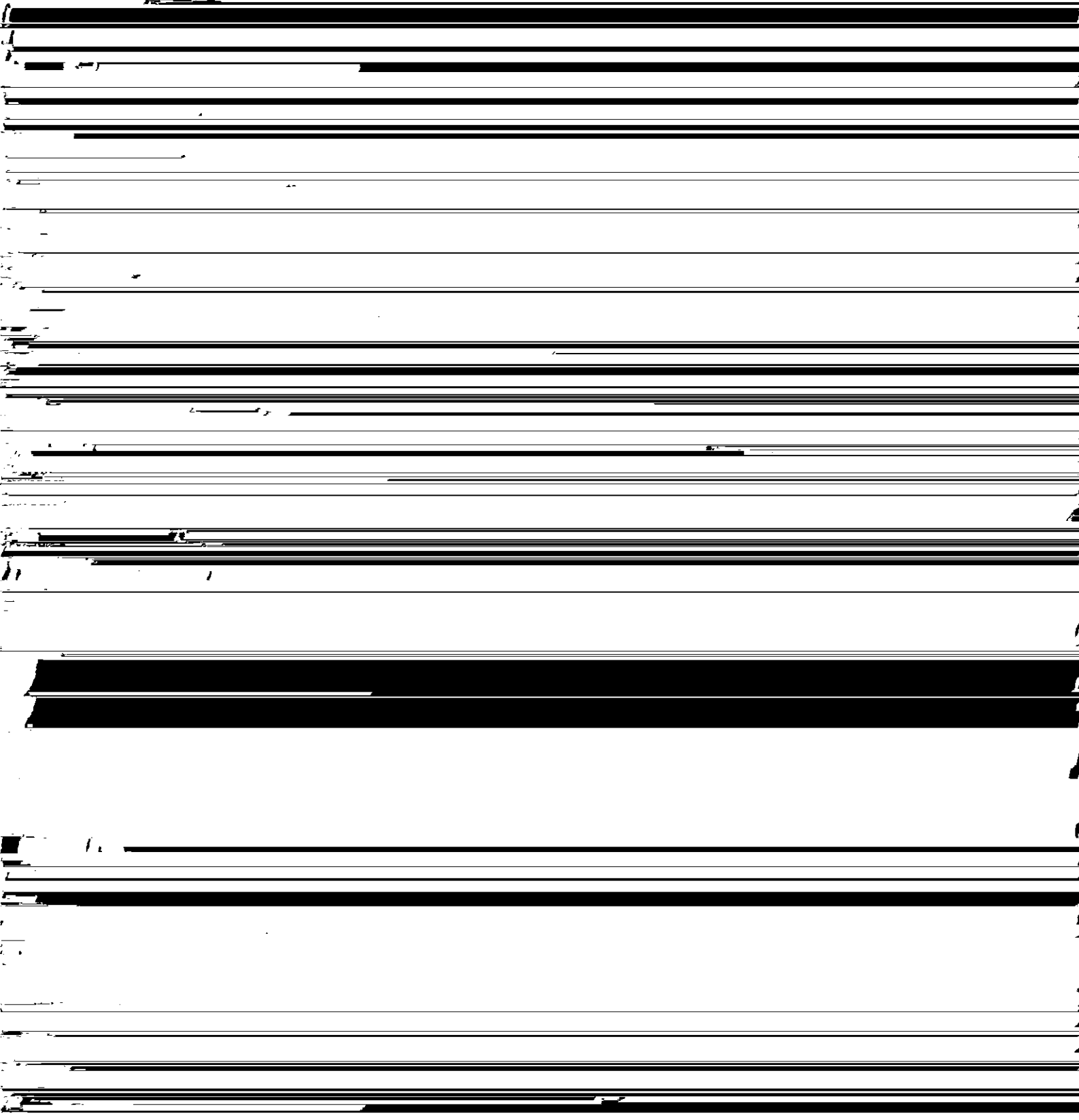
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Techniques for Improving Productivity of System Development

# Techniques for Improving Productivity of System Development\*

*Synopsis:*

*Kawasaki Steel has developed techniques for improving*



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Table 1 Typical attributes of data item

PRIDE to largescale projects. As a result, M-PRIDE (Mizushima PRIDE) was established, followed by K-PRIDE (KSC PRIDE) for companywide application.

1. Data name

- 2. Entity class
- 3. Type
- 4. Number of digits
- 5. Definition/application

The following improvements were made in the course of standardization:

- (1) Types and forms of documents, development work items, and work assignments were established as

- 6. Origin
- 7. Administrating department
- 8. Check Content
- 9. Method of generation
- 10. Related programs
- 11. Related input and output information
- 12. Related records and files

- the basis of PRIDE.
- (2) A data base design procedure corresponding to the system design procedure was established. The data base design procedure is shown in **Table 2**. Through this procedure, a process of conceptual data base design was established, with entity type analysis at its core. The aim of this work, however, was not mere analysis, but design work as such. Both the entity types which were the result of this process and their relationships were important as: ① a framework for organizing a large number of categorized data items, ② a starting point for data base design, and ③ a means of data base design.

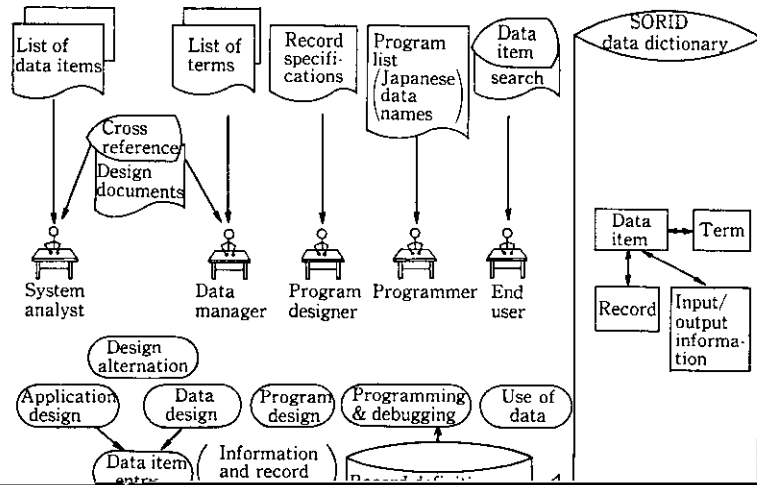
duced PRIDE (Profitable Information by Design-through Phased Planning and Control), a methodology for information systems development developed by the

SEQNO A B

DD-NO 日本橋名称

005100 PROCEDURE DIVISION USING FCOM,KCOM,SCDM,DBIRCB IN-MSG

Fig. 4 Relationship between functions of SORID and system development



comprehensive integrated development and maintenance support system. The operating system for these

design of input/output information and records is supported by the data dictionary, and results are also stored.

Data item attributes are available in the data dictionary;  
design results are also stored in the data dictionary.

|   |          |   |                                 |
|---|----------|---|---------------------------------|
| 1 | Reusable | 1 | COROL type component definition |
|---|----------|---|---------------------------------|

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

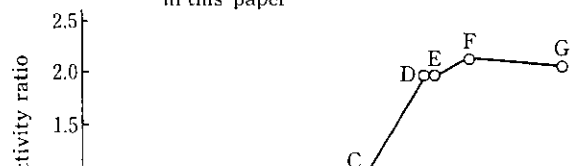
### 3.2.7 TRUST test support system<sup>3,5)</sup>

This system serves to support:

- (1) Test data preparation
- (2) Test execution
- (3) Test result verification

The data dictionary is used in functions (1) and (2). The

D-G : Developed using the techniques described in this paper





million steps in COBOL, which means that the equivalent of several large scale systems has been developed by

ment system was established for integrated data

and users

(2) THE COBOL data development system

Thus the necessary development level

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