PR1ME

PRIMEWAY™
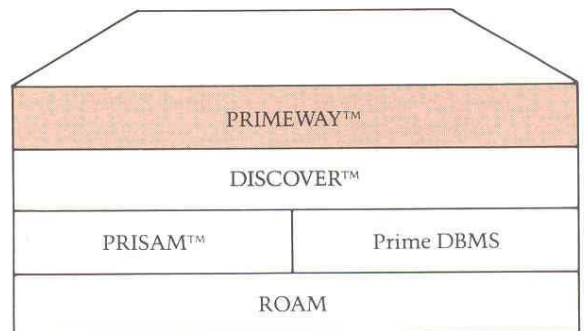## Transaction Development and Management System

Features

Application Development and Maintenance

Integrated set of software products

Easy-to-use interface

Screen painting of forms

Powerful screen editing

High-level application language (COBOL) integration

Automated library for applications and documentation

Built-in help facility for developers

Impact analysis of application modifications

Design prototyping for online testing and modification at all stages of development

Integration with Prime DBMS, a CODASYL-compliant database management system

Integration with PRISAM, Prime's Recoverable Indexed Sequential Access Method

Application Processing and Administration

Efficient transaction processing and activity monitoring

Complete audit, data integrity and automated recovery of both data and transactions

Comprehensive security

Optional help facility for end users

Priority control of transactions and users

Remote processing and remote transaction generation available through PRIMEWAY and PRIMENET™ networking software

PRIMEWAY™	
DISCOVER™	
PRISAM™	Prime DBMS
ROAM	

Description

PRIMEWAY Transaction Development and Management System is an integrated set of software products designed to automate and control the development, processing, and maintenance of business applications. Unlike application systems that have been developed using unrelated and often cumbersome software products, PRIMEWAY offers a complete, interactive working environment to its users. As a result, application development, processing, and maintenance become more structured, efficient, and productive.

Application Development and Maintenance

Structured Design Methodology

With PRIMEWAY, the developer forms each application as an integral part of an interactive environment that includes: CRT forms generation, source program editing, high-level language interface, application program libraries, facilities for testing, and interfaces to data management systems and data networking. Using a system of menus and prompts, PRIMEWAY guides the developer through the entire design process with a well-established design methodology. This process includes: defining the application; developing and validating its components; building and testing the system; and producing the documentation.

To perform these functions, PRIMEWAY provides the user with many powerful tools. The PRIMEWAY Forms *Screen Painter* lets the developer visualize the form before it is applied. An intelligent *Screen Editor* knows language constructs and data structures, and records data in a format that the COBOL compiler can understand. Much of the non-procedural code is generated automatically by PRIMEWAY.

PRIMEWAY's unique *Automated Library* feature produces consistent documentation as a byproduct of system development. Any changes to the application are immediately reflected in the system-maintained documentation library. Additionally, the Automated Library provides complete revision control for all applications, from the early stages of development to production and on-going enhancement and maintenance.

Defining the Application

In PRIMEWAY's application development environment, the developer defines the application security system, menus, transactions, forms, data to use, and parameters for the processing environment. The design methodology inherent in PRIMEWAY encourages development to proceed in a structured, yet flexible, fashion. The information collected may then be used for prototyping, allowing developers and end users to test the application.

PRIMEWAY allows the application to be defined in stages as the resources of the development team dictate. Additional parts can be added as necessary, and the Automated Library immediately incorporates all changes into the documentation.

Developing Components

Once an application is outlined, development of any component can begin. In addition, system components can be produced concurrently by several developers. This increases design flexibility by allowing development to match labor resources and to parallel associated developments.

Simultaneous development of separate components is further enhanced by PRIMEWAY's *impact analysis facility*. To ensure consistency, this software tool notes the consequences of each developer's actions on the work of others. The developer is informed of any requirements necessitated by those actions and is given the opportunity to carry them out. If immediate action is not taken, PRIMEWAY records the requirements for later reference.

Application Prototyping

Building a preliminary working model is an important part of any application development project. A prototype can save both time and cost. PRIMEWAY's *prototyping facility* dramatically reduces the time lag between the original design specification and the working system. Unlike other systems, PRIMEWAY allows application prototypes to be created at any stage of development.

PRIMEWAY lets the developer work closely with the end user while creating a prototype system. Display screens, reports, data references, and procedures can be developed interactively for end user approval. Testing can be done online and modifications easily made. The prototype application then becomes the specification for the production application.

Validating the Components

By comparing the currently developed modules with the application definition, PRIMEWAY ensures that all parts of the application are complete. PRIMEWAY then performs preprocessing functions, error identification, and COBOL compilation. When validation is completed, the components are automatically catalogued in the Automated Library.

Building the System

Development activity results are incorporated by the PRIMEWAY system build into a complete business solution. By simply selecting a menu option, an executable application is produced from the Automated Library and catalogued for testing and processing.

Testing

The PRIMEWAY *Application Testing Mode* is invoked by pressing a function key. The developer can display and modify information on the contents of work areas, Prime DBMS or PRISAM statements, and PRIMEWAY transaction logic flow. Through this process, applications errors are quickly isolated and easily fixed. The COBOL compiler, impact analysis, design prototyping, and test mode facilities work together to ensure comprehensive testing.

Ease of Use

An extensive, integrated online help facility is available to the PRIMEWAY developer. It provides information on the use of particular features or the choices to be made at a decision point. Other ease-of-use features include the use of function keys for many operational activities and screen painting for forms design.

Application Processing and Administration

PRIMEWAY's processing environment executes the developed application which consists of a system of forms, menus, and transactions. In addition to processing transactions, PRIMEWAY provides monitoring, security, recovery, and networking in local or distributed environments.

The PRIMEWAY Monitor

The PRIMEWAY monitor manages the processing environment by scheduling transactions, ensuring efficient use of system resources, and allowing many workstations to connect to a few processes. This results in much higher transaction throughput than conventional timesharing applications.

Security

The PRIMEWAY security system is both powerful and flexible. In addition to password security, data is protected by dividing users into classes and levels of security. A class like "Finance" or "Inventory" would restrict access to only personnel in that group. Within each class, further security is provided by designating levels of access. Users can access the data needed to perform their responsibilities.

Recovery

The PRIMEWAY Transaction Development and Management System combines customer-proven, highly reliable Prime hardware with extensive dynamic recovery and reconfiguration capabilities. Included within the PRIMEWAY environment are full before- and after-image recovery capabilities. Before-image recovery is provided in the form of rollback to allow update transactions to be undone in case of a logic or concurrent update error. After-image or rollforward recovery provides protection in situations such as media failure. Additional time and effort is saved through dynamic environment reconfiguration;

if a faulty terminal is suspected, the user can easily be authorized to use a different terminal.

Networking

PRIMEWAY also provides a capability called *remote transactions* through PRIMENET networking software. This feature allows one transaction to generate additional transactions which may access data on another local or remote system. Thus, with one transaction, users are able to transparently access data anywhere in a PRIMENET network and update several databases within an application. PRIMEWAY and PRIMENET also make it easy to expand as system needs grow.

Applications

Because of its transaction-oriented, structured environment, PRIMEWAY is a valuable tool in a wide variety of industries, such as:

Government	Education
Manufacturing	Banking
Utilities	Medical

Within these and other industries, application areas for the system include:

inventory	materials management
service dispatch	order fulfillment
personnel records	project management
accounting	sales order entry

Support and Training

Prime provides comprehensive education covering all aspects of application development, training, operation, and administration. With the purchase of PRIMEWAY, customers receive a complete set of documentation and manuals. During the pre-installation phase, Prime representatives work closely with customers on system design and configuration.

In addition to receiving complete product information, Prime also offers PRIMEWAY Application Programming courses. These are designed to acquaint users with the system and quickly improve application design productivity.

Prime Customer Service

Prime's worldwide Customer Service organization, including support specialists and Customer Support Center product specialists, works to provide high quality, competitively priced service. The Customer Support Center serves as a clearing house for all reported problems, dispatching them to the appropriate function for timely resolution. In addition, Software Support Specialists work with customers to provide direct, timely, and accurate problem diagnosis and resolution. They ensure Prime's commitment to provide high product availability.

Software support is available to all customers who sign a standard software maintenance contract. A telephone hotline is available for customer assistance. In addition, software support provides on-site assistance, software update services, and problem reporting and escalation.

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