

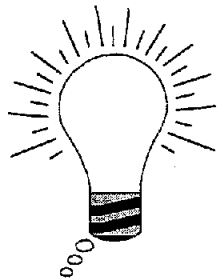
Creating a Successful Analysis Environment for a Data Warehouse

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ABSTRACT

The PC/SAS toolset (V6.11 or V6.12) does not implicitly support features that add value to either (1) the analyst environment or (2) the support infrastructure. In order to create a successful analysis environment and simplify maintenance of the toolset, additions to the Point & Click environment were added. The customization includes PC/SAS access script and startup file modifications, Frame and SCL development, SQL Query profile customization. The customization includes a standard Login environment for the enterprise, a simpler SQL query windowing environment, remote batch and print queueing on the host (MVS/DB2).

Creating a Successful Analysis Environment for a Data Warehouse



Technologies - Information Strategies

Creating a Successful Analysis Environment for a Data Warehouse

- Data Warehouse should
 - increase understanding of your customers
 - give an "enterprise view" of the corporation and force consistency across the corporation
 - facilitate exploitation of corporate information to add value to the "bottom line"

Creating a Successful Analysis Environment for a Data Warehouse

- Data Warehouse Environment
 - provides access to the Data Warehouse, at a minimum
 - provides analysis tools
 - provides reportwriting and query tools

Creating a Successful Analysis Environment for a Data Warehouse

- A Successful Data Warehouse Environment
 - should be designed to allow access to any available information, including Data Marts and related Applications
 - should facilitate all types of users, not just "power" users
 - should be maintainable and manageable with little downtime
 - should be "easy to use"
 - must have "reasonable" response time

INTRODUCTION

The support group needed to decide how to manage the deployment of the PC/SAS toolset for a wide audience. The user community consists of executives, analysts, "power users" and programmers. Typically the executives will work only with the applications that are distributed (e.g., EIS). The rest of the community is expected to take advantage of all features within the Point&Click environment (SAS Assist). Programmers may take advantage of this environment, but are expected to utilize the program editor directly.

The next slide discusses specific PC/SAS enhancements introduced to facilitate creating a successful analysis environment.

Creating a Successful Analysis Environment for a Data Warehouse

- **Standard Login screen**
 - facilitates consistency
 - simplifies maintenance
- **Remote Processing**
 - facilitates multitasking
 - reduces network contention
- **Remote Print**
 - resource utilization
- **Standard Query Profile**
 - easy to use

A standard logon procedure was established for all of these types of users. One standard access script was published for MVS access (applications and data warehouse target) and one for AIX access (datamarts target). The script traps for error messages, such as "password expired", and so forth.

A standard query window was established for the data warehouse. The DB2 system catalog is queried to provide a list of tables, columns, and keys, which is used to facilitate autojoins. The query profile is customized to display only those databases which apply to the data warehouse users in each business silo, with meaningful names to choose from.

Several frames were created to facilitate remote batch and print queueing, as well as maintenance of these capabilities.

The next several slides discuss the one key factor used to success of the implementation of the data warehouse, and some techniques that may be used to increase success. That key factor is the response time the users perceive with regard to query, reporting and analysis.

Creating a Successful Analysis Environment for a Data Warehouse

- Response Time Factors
 - Architecture
 - » Highly Summarized Tables
 - » MultiDimensional Cubes
 - Hardware Integration
 - » Proximity of Data (high bandwidth)
 - » Distributed Processing
 - » Parallel Processing
 - » Caching...
 - Procedural
 - » Batch vs Interactive

Creating a Successful Analysis Environment for a Data Warehouse

- Advantages of Summary Tables include
 - capture of metadata
 - fast access
 - easy fit into existing infrastructure
- Disadvantages of Summary Tables include
 - high maintenance
 - schedule risks

Creating a Successful Analysis Environment for a Data Warehouse

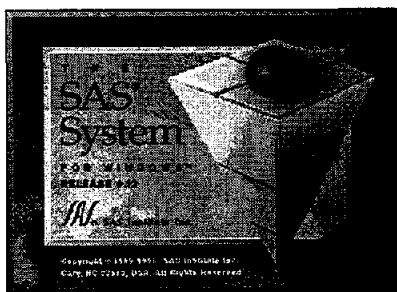
- Advantages of Multidimensional Cubes include
 - rapid deployment
 - relatively low maintenance
 - fast access
- Disadvantages include
 - total reliance on vendor
 - lack of maturity in the industry

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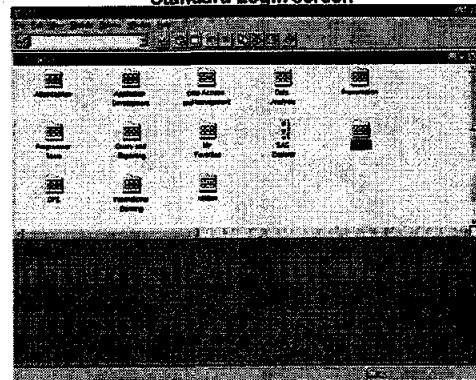
- Advantages of IntraNet include
 - easy deployment of application updates
 - *akuna metadata* as far as user desktop configuration
- Disadvantages include
 - dependence risk on application server(s)
 - application download time for "not so thin" clients

The next set of slides shows an example of a PC/SAS 6.12 session.

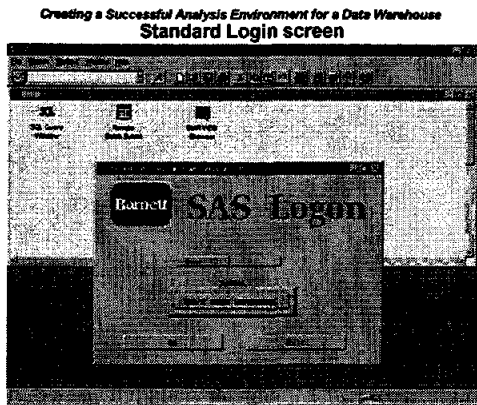
Creating a Successful Analysis Environment for a Data Warehouse
Standard Login screen



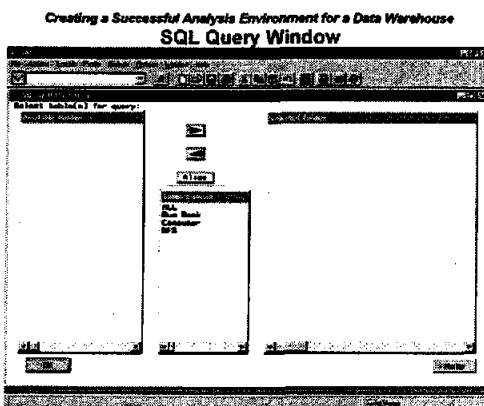
Creating a Successful Analysis Environment for a Data Warehouse
Standard Login screen



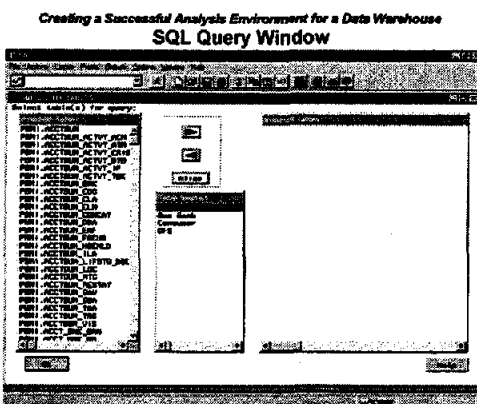
Once the user clicks on any application or PC/SAS tool, the logon frame is displayed. In this example, the user has chosen the SQL Query Icon and has chosen access to the data warehouse.



Once the connection is established, the custom SAS SQL Query window is displayed.



Note that the choices are based on user access security, which is either a Business Banker, Consumer, or Dealer Financial Services (DFS) user. Once the database(s) is chosen, the user is presented with the table selection frame.



In this example, two tables are selected to show the autojoin feature.

CONCLUSION

The customizations provide a successful analysis environment for most end-users. This is a continual, ever evolving process. The key is to work with the users throughout all stages of their needs and be as proactive as possible.

GLOSSARY

There were enough acronyms used to warrant the following glossary:

AIX	IBM's version of UNIX operating system.
EIS	Executive Information System.
DB2	IBM's relational Data Base.
MVS	IBM's mainframe operating system.
SCL	SAS Screen Control Language.
SQL	Structured Query Language. This is standard for data retrieval from relational databases.

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