KOMAND

IT Financial Management

KOMAND

NuPSoft

Software Solutions Services
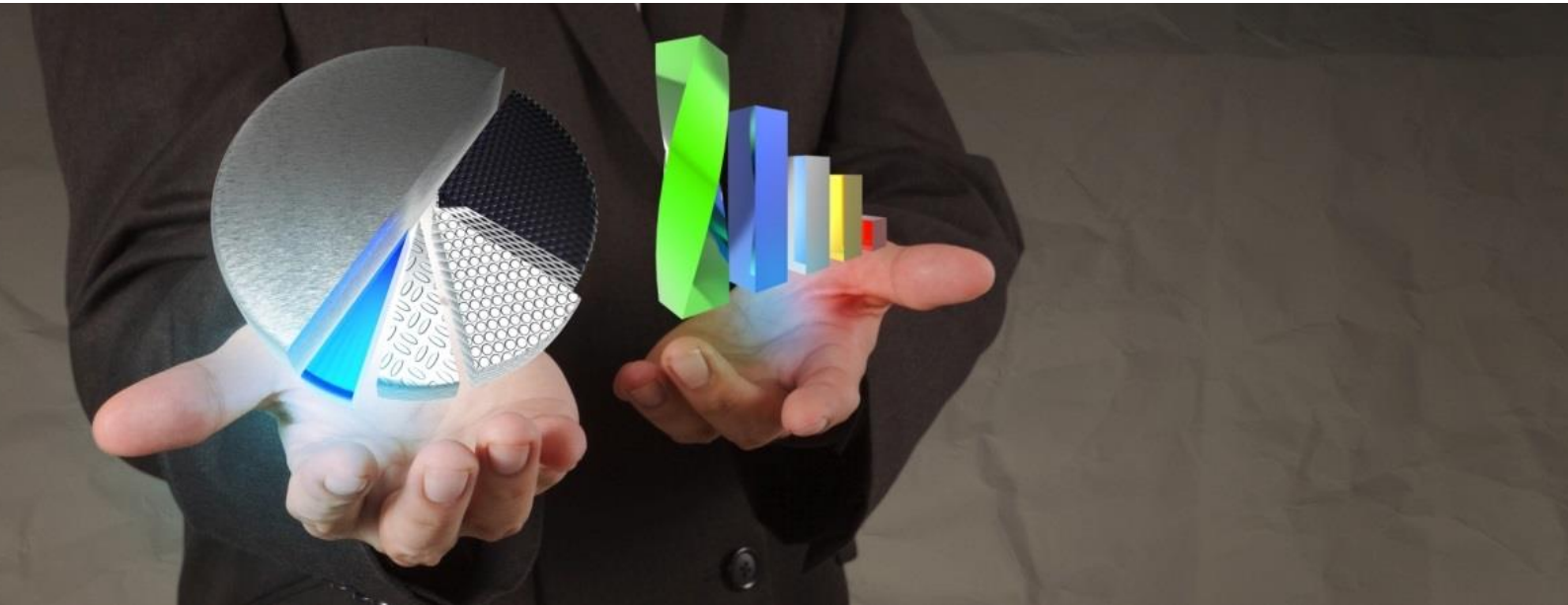
Accounting of IT Resources

KOMAND is a family of software products providing accounting for IT resources, user chargeback, financial analysis and reporting. It provides the means to identify resource use, determine the cost of utilization, and charge the appropriate system users and/or business activities.

KOMAND supports informational "memo" billing, break-even/full-recovery, full/selective profit, or a combination of these objectives. It may also be used as the backbone of product line costing, business unit accounting, forecasting, or activity based costing environments.

KOMAND DAS accounts for MVS batch, TSO, and started tasks. It allows accounting information to be extracted from the jobname, accounting, or programmer name fields on the job card (or pseudo job card), or through a user exit table look-up. Account numbers may also be assigned to started tasks based on the jobname field.

DAS computes the cost of a job in batch mode by using collected SMF records or in "real time" (On-line Costing) as the job is running using standard operating system exits. If the cost is to be computed in "real time", the utilization and costing statistics may be displayed on the batch SYSOUT or on a TSO terminal at logoff time (shown below).

```
READY
logoff
                    KOMAND   ONLINE  COSTING
     QUANTITY  RESOURCE                          UNIT          ESTIMATED
     MEASURED  DESCRIPTION                      RATE($.¢)      COST($.¢)

       38150   3390 EXCPS                        .05/1000          1.91
     .0321721  PROCESSOR HOURS               4,000.00/HOUR       128.69
     .0067210  BLOCK CHANNEL HOURS             215.00/HOUR         1.45
     2.99253   TP OCCUPANCY HOURS                1.00/HOUR         2.99

               MULTIPLICATION FACTOR             1.00 *          135.04
               TABLE USED: KOMTBL01  VERSION:V410

     TOTAL ESTIMATED SESSION COST                                135.04
```

Real time cost assignment also allows the writing of fully costed records to the SMF data sets with the advantage of reduced processing time at month-end billing.

It is also possible to update budget information in a VSAM Master File to allow for on-line interrogation from the KOMAND Financial Management System (FMS). This allows the end-users to view their budget vs. actual at any time during the billing cycle. The statistics presented would be as current as the last batch job or TSO session run. On-line Costing and Budget Management may be implemented for the entire community or for selected users.

KOMAND DAS allows the system administrator to recost data from a single item to implementing an entirely new charging algorithm using the billing file rather than re-processing the raw SMF. The resources and rates for charging are controlled by the DAS Factor Table. An unlimited number of alternate charging algorithms (Factor Tables) are supported by DAS. Each individual Factor Table allows charging for over 90 separate resources, such as CPU time, tape and disk I/O, print lines or pages, etc.. Some other costing options include:

- Shift accounting (weekdays, weekends and holidays)
- Proprietary software charging
- Print not associated with a specific job
- Priority accounting

All KOMAND DAS functions; execution of batch jobs, and maintenance of costing tables may be controlled through the KOMAND (ISPF based) menu system/Graphical User Interface. An output file containing job costs and utilization may be input to KOMAND FMS where it can be merged with other enterprise charges to produce consolidated invoices and other financial reports.

DASD-Storage

KOMAND DASD Accounting and Management System

The KOMAND DASD Accounting and Management System (DAMS) is a utilization and billing system for Direct Access Storage Devices. DASD storage hardware and software makes up a large portion of the on-going expense of today's data centers. It is essential for a data center manager to know who (business units) or what (products/applications) is driving these costs. The most typical method for tracking and charging DASD usage is to use a daily scan of the DASD Volume Table of Contents (VTOC).

A VTOC scan of all DASD devices will give a "snapshot" of what space is allocated to who at that particular instant. The problem is a VTOC scan doesn't show what space was being used an hour before or even a minute before. Likewise, it doesn't account for space allocated a minute later.

KOMAND DAMS not only offers a VTOC scan, but also a much more accurate solution. KOMAND DAMS can account for DASD space by tracking all data sets allocated, extended, released, renamed, and/or scratched. This allows the most equitable form of disk space charging because it tracks all DASD space changes over a period of time and relates these charges to a cost center (shown below).

Detail of data set charges by user cost center

Both costing methods can track and charge for HSM and SMS data sets. Both methods can also derive charging rates and the billing account from a choice of several tables. These tables are listed below in order of interrogation:

- **Data set name table** – searches by the full data set name
- **Data set qualifier table** – searches by any high level portion of the data set name
- **Volume** – searches by the volume serial number of the volume to be charged
- **Device type table** – searches by the DASD device type to be charged

"Common" Rate Table allows the system administrator to set resource rates for KOMAND DAMS and all of the Charging Systems from one location. In addition to rates, this table allows users to convert usage measurements from track/hours to mega-byte/days or megabyte/weeks.

Table maintenance may be performed on the host through the ISPF Panel System or the graphical user interface. It may also be performed from a PC through the KOMAND Information Manager (KIM) running on a Windows system.

The billing account number may optionally be obtained from the job card of the allocating job instead of the above tables.

The main output of KOMAND DAMS is a file of debit records summarized at the account level by DASD device type. This debit file is intended to be input to KOMAND FMS where it can be merged with other enterprise-wide charges to produce consolidated invoices and other financial reports.

As KOMAND DAMS produces summary records for billing, a history file may optionally be kept for detailed reporting down to the individual data set level.

CICS, DB2, IDMS, IMS, NetView and VM

Resources- and Subsystem-Accounting

To equitably charge for shared environments such as CICS, DB2, IMS, CA-IDMS or NetView, it is necessary to charge at the transaction level rather than the global (region) level. In a VM environment, charging should be at the batch-job or CMS level. To accommodate these charging philosophies, KOMAND has separate charging systems for all of the products shown above.

As these transaction systems do not have a job-card to identify account information, the methodology for determining ownership is based on any character field(s) (User I/D, Terminal I/D, Transaction I/D, etc.) found in the input records. Conversion of these field(s) into valid account numbers is performed by translation tables maintained in the charging system. A user exit point is provided if an external translation table is desired.

The output from the transaction systems is in summary form, i.e. if a customer produces one million CICS transactions per day, these would be summarized as a single account debit. Should the need arise, it is possible to produce a detailed history file that contains one fully costed record per transaction.

A COMMON Rate table allows the system administrator to set resource rates for DASD space (DAMS) and all of the Charging Systems (CCS, ICS, DBCS, UNCS, IDCS, NCS and VMCS) from one location.

Transactions may be charged by resources used, a "flat rate" per transaction, or a combination of the two.

Selected transactions may have the following "special" costing options applied:

- **Free** – track the resource consumption, but do not apply a charge
- **Drop** – do not charge or track this transaction
- **Extra** – apply a surcharge to basic resource charges
- **Fixed** – apply a flat rate charge rather than charge by resource consumed

Up to three levels of shift accounting may be applied for standard workdays. Weekend and holiday rate differentials are also supported. Shift multipliers may be applied to the entire transaction, or to specific resources within the transaction. The KOMAND Charging Systems accept as input the standard SMF or Log records, plus records produced by most major monitoring systems.

For invoicing, the option exists to display charges as a single line item showing the total transaction charges, or as multiple line items based on individual resources. This option may be selected on a customer account basis, showing only the level of detail requested by each customer.

KOMAND Transaction Charging Systems and input records supported:

- **KOMAND/CCS (CICS Charging System) IBM CMF 110 records**
  - Landmark Systems Corp., "The Monitor for CICS" TMON/CICS
  - Candle Omegamon 110 records
  - BMC Software, MainView for CICS
- **KOMAND/DBCS (DB2 Charging System) IBM 101 or look-alike records**
  - BMC DB2 Activity Monitor
  - BMC Software, MainView for DB2
- **KOMAND/ICS (IMS Charging System) IBM IMS Type 7 Log Records**
  - BMC Software, MainView for IMS
- **KOMAND/IDCS (CA-IDMS Charging System) KOMAND Generated Records (SMF format)**
  - CA-IDMS Performance Monitor Records
- **KOMAND/NCS (Network Charging System for mainframes) IBM NetView Type 39 SMF Record**
- **KOMAND/VMCS (VM Charging System) IBM VM Log Records**
  - Sterling Software VMACCOUNT Records
- **KOMAND/UNCS (UNIX Charging System) System "V" UNIX (HP, SUN, AIX)**
 - Connect, processor, disk, print

Reporting System

Reporting System

The KOMAND Financial Management System (FMS) provides a wide range of financial reports and applications relating to resource accounting and chargeback. It is the central repository of charging data from all the KOMAND charging system products. KOMAND FMS accumulates enterprise utilization and charges for each customer account by billing period into one VSAM Master file.

KOMAND FMS then uses the Master file to create invoices, budget vs. actual, year-to-date, and other financial reports. These reports can be produced in a detailed technical or a management summary format. Following are some features within KOMAND FMS:

- **"Debit and Credit capabilities":** Debits and/or credits may be applied as one-time transactions directly to an account via the KOMAND menu system or brought in monthly as recurring charges from a batch file or KIM.

- **"Discounts and Surcharging":** Up to two separate percentage discounts may be given when a customer reaches specific levels of total charges. Customers may also be surcharged or credited based on individual resource utilization or charge threshold levels.

- **"Proration of Charges":** Charges and utilization from one account, job, or resource category may be spread across other accounts at user specified percentages. Credits as well as debits may be prorated.

- **"Zero Balancing":** This feature will compare the actual revenue generated to a specified target amount and generate a new debit or credit to each account based on their percentage of the total revenue in order to reach the target amount. This feature can be used to achieve a zero balance recovery, a specific profit margin, or to apply a tax or surcharge.

- **"Online Budget Management (OBM)":** The OBM option makes it possible to track and control budget infractions. Budgets may be entered by account and if the budget is exceeded, OBM allows the infraction to be ignored, produce a warning message to the customer, or deny the customer access to the host system.
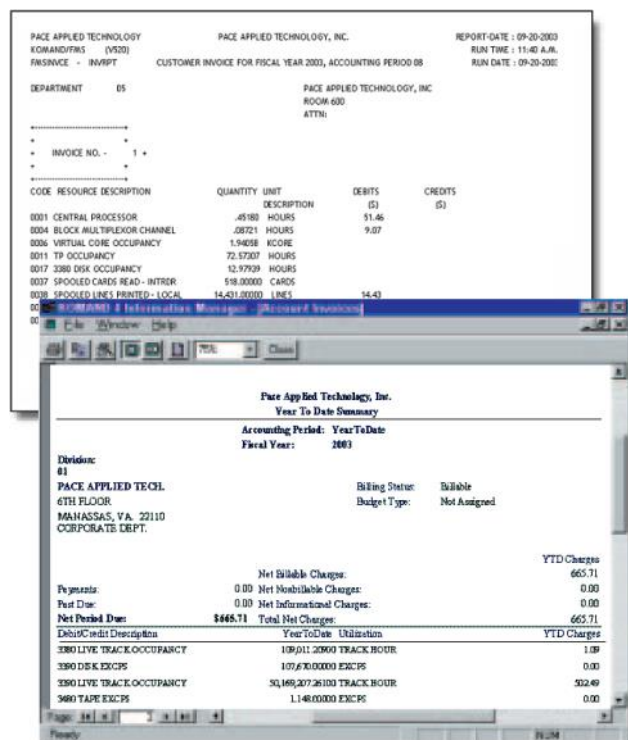
Data Inquiry System

Data Inquiry System: Report Writer (DIS)

One of the most important features of any resource accounting and chargeback system is the ability to retrieve information in a timely fashion. If a Financial Analyst must rely on the programming staff to design a SAS query or write a program, the value of the information may be lost by the time the Financial Analyst receives it.

The KOMAND Data Inquiry System (DIS) is a full-featured report writer designed for end-users that have little or no programming expertise. By using KOMAD DIS either in batch mode or interactively with the KOMAND ISPF menu system, it is possible for the user to easily create reports based on the costed master files, SMF, or any user defined input files. DIS can also be accessed using a PC GUI which lays on top of the ISPF menu system.

The entire "query language" used by DIS consists of twenty-five simple English-language verbs. Some examples are:

- **WHEN** – similar to the COBOL "IF"; it is used to limit the input data based on user selection criteria
- **LIST** – list the fields that follow; DIS will format the output or the user may supply columnar headings and report positions
- **SORT** – sort on the field(s) specified; sort may be in ascending or descending order
- **DUMP** – used with the "WHEN" verb, to create a subset of the input data
- **WRITE** – KOMAND DIS supports the creation of comma delimited files that may be downloaded to a PC for further ad-hoc reporting. These files may be used by any of the popular database, word processing or spreadsheet PC applications

As a safeguard, KOMAD DIS is "read-only" so users are unable to corrupt any input files. As distributed, DIS is able to read all KOMAND files and the majority of raw SMF records. Documentation is provided to allow the end-user to create data dictionaries for reporting from existing in-house files.
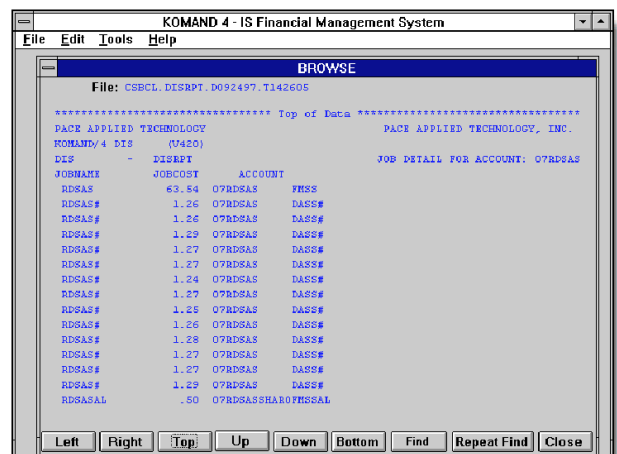
The data maintained within KIM system may be exported to other applications, such as: Excel, Paradox, Access, ODBC, etc..
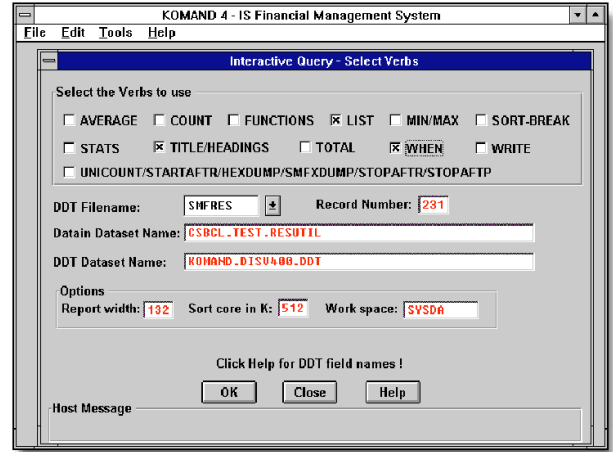
Wählt Befehle aus der Hauptabfrage aus
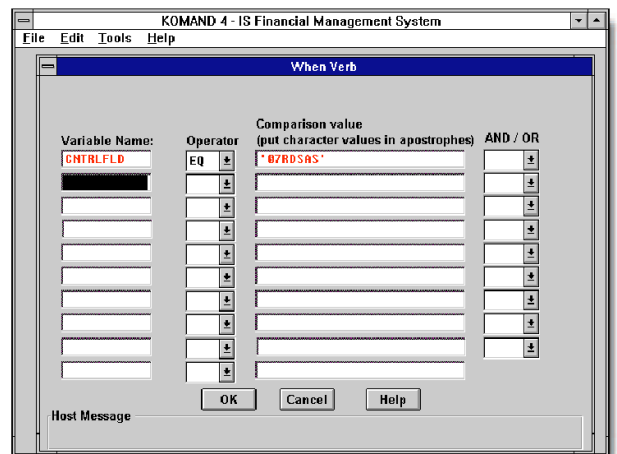
Gibt Parameter für die Abfrage an

Das Ergebnis wird in Berichtsform in einem Fenster präsentiert.

PC Interface

KOMAND Information Manager

The KOMAND Information Manager (KIM) is a set of PC based tools and reports designed to streamline and simplify the use of the KOMAND System for both the KOMAND System Administrator and end-user.

Written to take advantage of the Windows graphical user environment, KIM is a LAN enabled, relational database that features:

- **Multiple format invoices**
    - Account invoicing at any control level
    - System and account level charges and utilization

- **Graphical output reports (over twenty provided)**
    - Quarterly charges for multiple years
    - Year-to-date charging and utilization

- **Period detail by account**
- **Ad-hoc application of debits, credits and payments**
- **Application of recurring debits and credits**
    - Controlled by start and stop dates

- **Business service costing**
- **Determine and report the cost of a single unit (check, Claim, Transaction)**
- **Table maintenance (with full PC reporting)**
    - Customer profiles
    - DASD Space rate tables
    - Charging Systems account and rate tables for CICS, DB2, IMS, NOVELL Networks, Mainframe LANs (NetView), VM, CA-IDMS, etc.
    - Debit and credit code tables

- **A rate determination tool**
- **Security for manager and end-user levels provided**
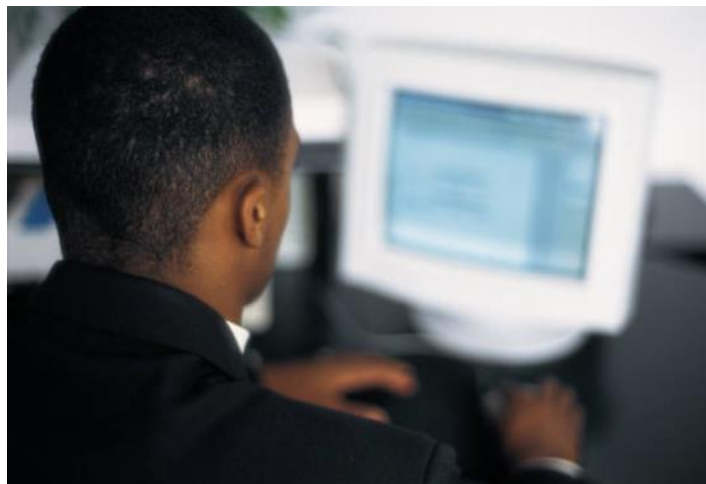
About NuPSoft

NuPSoft is a sales, marketing, development and support organization that provides robust and proven "State-of-the-Art" business solutions on a worldwide basis. Founded in 2002 by a group of experienced multinational software distribution and IT professionals, backed by a highly skilled team of developers and engineers, NuPSoft has the expertise and market knowledge required to identify, develop, distribute and support high quality and effective IT solutions that meet the fast evolving needs of today's major business organizations. We consider our customers to be our partners, which we provide with consultation, products and support continuously. NuPSoft has the objective to be an important supplier of software solutions, services and technology integrations in all fields. To reach this goal we co-operate closely with our worldwide reputable partners of the IT industry. Apart from security, stability, user comfort and performance of our solutions we put our special attention on short development cycles with customer oriented adaptations and/or developments. Up to now the company has sales and support offices in Austria, Germany and Switzerland. From our locations we run the sales, the support and the 24x7 support for the following regions: Western Europe, Central and Eastern Europe, Middle East and South Africa.

www.nupsoft.com

About PACE

PACE introduced the first job accounting system to track IBM computer resources in 1970. In the ensuing years, PACE has pioneered many new products geared toward IT financial management. PACE continues to improve the capabilities of our KOMAND Financial Management Systems by supporting new technology platforms such as AS400's, UNIX, and PC LANs. To simplify system administration and ease of use, we offer a PC Windows based system for easy point and click administration of tables and creation of reports.

www.pace.us.com

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