SAS®
IT Resource Management 3.1.1
Glossary

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adapter
specialized software that loads raw IT performance data from diverse data sources into staged tables that can then be input to other processes. Adapters that are supported by SAS IT Resource Management consist of template tables, transformations, and staging code.

Adapter Setup Wizard
a wizard in SAS Data Integration Studio that helps define and create jobs for a supported input data source. When run, these jobs execute staging transformations, information map transformations, and aggregation transformations that prepare raw data for IT performance data reporting. See also adapter.

age limit
in a table, a unit of time that describes how long existing data is to be kept in an aggregation table of an IT data mart when new data is processed.

aged data
data that is deleted from an aggregation table in the performance IT data mart because the data exceeds the age limit that is specified for keeping that data.

aggregate
another term for summarize.

aggregate function
a function that summarizes data and produces a statistic such as a sum, an average, a minimum, or a maximum.

aggregation
the act or process of grouping data, using an operation that produces a statistic such as a sum, average, minimum, or maximum. The term aggregation can also refer to the grouped data that results from such an operation. See also aggregate function.

analysis variable
a numeric variable that is used to calculate statistics or to display values. Usually an analysis variable contains quantitative or continuous values, but this is not required.

attribute
a characteristic that is part of the standard metadata for an object. Examples of attributes include the object's name, creation date, and modification date.

availability
the percentage of time that a system is available to respond to the requests of its users.

axis
a one-dimensional line that represents the scale that is used for plotting the values of x, y, or z coordinates.

backup copy
a complete copy of one or more libraries.

batch job
a unit of work that is submitted to an operating system for batch processing. On z/OS, a batch job is a set of JCL statements; on Windows, a batch job is a task; and on UNIX, a batch job is a background process.

batch mode
a method of executing SAS programs in which a file that contains SAS statements plus any necessary operating environment commands is submitted to the computer's batch queue. After you submit the program, control returns to your terminal or workstation, and you can perform other tasks. Batch mode is sometimes referred to as running in the background. The program output can be written to files or printed on an output device.

browser
See Web browser.

BY variable
a variable that is named in a BY statement and whose values define groups of observations to process.

capacity planning
the process of measuring performance, availability, and workload volume in a particular computing environment and comparing these measurements over time to baseline values. The object of capacity planning is to predict when resources will need to be upgraded.

chart
a graph in which graphical elements such as bars or pie slices show the magnitude of data values. The graphical elements can represent one data value or a range of data values.

class variable
a variable that is used to group (or classify) data. Class variables can have either character values or numeric values. Class variables can have continuous values, but they typically have a few discrete values that define the classifications of the variable.

client
See SAS IT Resource Management client.

client tier
the portion of a distributed application that requests services from the server tier. The client tier typically uses a small amount of disk space, includes a graphical user interface, and is relatively easy to develop and maintain.

continuous values
values of a variable that theoretically could indicate an uncountable number of possible values. For example, a variable that measures the temperature of water in degrees Celsius under normal conditions is continuous because it can have any value from 0 to 100, even though the thermometer that is used is not able to measure temperatures beyond a particular level of decimal precision.

control data set
  one of the data sets that the duplicate-data-checking macros maintain and use to
  determine whether data from a log has already been processed.

CPU normalization
  the act or process of taking CPU usage values that have been collected on CPUs that
  operate at different speeds and multiplying those values by normalization factors so
  that the charges assessed for CPU usage are equitable no matter what type of CPU
  is used. The normalization factors are based on comparisons to one particular type of
  CPU that has been specified as the standard for a particular site. CPU normalization
  is sometimes referred to as processor normalization.

cron
  a UNIX utility for executing batch jobs on a periodic basis.

daemon
  a process that starts and waits either for a request to perform work or for an
  occurrence of a particular event. After the daemon receives the request or detects the
  occurrence, it performs the appropriate action. If nothing else is in its queue, the
  daemon then returns to its wait state.

data source software
  software that logs data that is related to IT services.

date format
  in SAS software, the instructions that tell SAS how to write numeric values as date
  values.

datetime format
  in SAS software, the instructions that tell SAS how to write numeric values as
  datetime values.

delimiter
  a character that serves as a boundary that separates the elements of a character
  string, a program statement, a data line, or a list of arguments.

duplicate data
  1) observations that have identical values in all of the BY or CLASS variables. 2)
  observations that come from the same log. The meaning that is intended is explained
  when the term is used.

duplicate-data-checking macros
  a set of macros (%CPDUPINT, %CPDUPDSN, %CPDUPCHK, and %CPDUPUPD)
  that control whether data from a log can be reprocessed into the tables of an IT data
  mart. See also control data set.

ETL (extract, transform, and load)
  the process of extracting IT performance data from a data source, transforming the
  data, and loading it into an IT data mart.

external file
  a file that is created and maintained by a host operating system or by another
  vendor's software application. Either data or stored SAS statements can be read
  from an external file. Data can be written as output to an external file. A SAS data
  set is not an external file.

external name
  1) when referring to a SAS IT Resource Management table, the name of the object
  that contains the data that is to be merged into the table. The object can be a staged
  data set, a staged view, or a character-delimited file. 2) when referring to a SAS IT

Resource Management variable, the name of the corresponding variable in the staged data set, in the staged view, or in the character-delimited file.

folder
a repository for objects that are of the same type.

format
an instruction that SAS uses to write data values. Formats are used to control the written appearance of data values, or, in some cases, to group data values together for analysis.

gallery
all the reports (and the associated left and right frames) that are visible in a Web browser when a particular welcome.htm file is selected.

global macro variable
a macro variable that can be referenced in either global or local scope in a SAS program, except where there is a local macro variable that has the same name. A global macro variable exists until the end of the session or program. See also local macro variable.

graph report
a report that uses high-resolution graphics. See also text report.

graphical user interface (GUI)
any system that uses graphical objects such as windows, menus, icons, buttons, and check boxes to represent the functions of a software application and to enable the user to interact with the application. By contrast, a command-line interface requires users to interact with the software application by entering text. Many graphical user interfaces use visual metaphors for real-world objects such as file cabinets, folders, rulers, and scissors.

GUI
graphical user interface.

host
an operating environment that is identified by a name. For example, a domain name or an IP address can be used to identify a computer or a router.

HTML (HyperText Markup Language)
a coding system in which the codes indicate the layout and style of the text in a text file. Other HTML codes enable you to embed electronic objects such as images, sounds, video streams, and applets (small software applications) into HTML documents. All Web browsers can process HTML documents.

ID variable
a variable that contains an alternate identifier for the data in a CLASS variable. For example, the value of a CLASS variable could be a device address, and the value of the corresponding ID variable could be the name of the device. ID variables are useful for identification because their values rarely change.

index
a component of a SAS data set that enables SAS to access observations in the SAS data set quickly and efficiently. The purpose of SAS indexes is to optimize WHERE-clause processing and to facilitate BY-group processing.

informat
a pattern or set of instructions that SAS uses to determine how data values in an input file should be interpreted. SAS provides a set of standard informats and also enables you to define your own informats.

information map

a collection of data items and filters that provides a user-friendly view of a data source. When you use an information map to query data for business needs, you do not have to understand the structure of the underlying data source or know how to program in a query language.

Internet

the proper name of the super-network that connects many smaller networks around the world and which enables all the computers on those networks to exchange information. All of the computers on the Internet use the same set of communication protocols, called TCP/IP. The World Wide Web uses the Internet as an electronic highway. See also internet, intranet.

internet

any group of interconnected networks that use Internet Protocol (IP) for exchanging information. The individual networks are not necessarily owned by the same company or organization. The Internet is the biggest example of an internet. See also intranet.

intranet

a private network of interconnected networks within a single company or organization. These networks use the same TCP/IP communication protocols that are used on the public, worldwide Internet, but they are either closed to the Internet or they are connected to the Internet via a firewall. A firewall enables internal users to access the Internet, but prevents unauthorized outsiders from accessing the intranet. In other words, intranets enable companies or organizations to share information without making that information available to everyone who has access to the Internet. See also Internet, internet.

IT

information technology.

IT data mart

a logical collection of the jobs, data, information maps, tables, and other elements that support the extracting, transforming, and loading (ETL) of IT data. IT data marts are set up, managed, and administered by wizards and user interfaces. These wizards and user interfaces are available in SAS Data Integration Studio and are managed by the data administrator.

job

a metadata record that specifies the processes that create one or more data stores (output tables). A job connects a series of process steps into a single unit. A job can include scheduling metadata that enables the process flow or user-supplied program to be executed in batch mode at a specified date and time.

keep status

1) for a table, a value that indicates whether the table is to be used or ignored. 2) for a variable in a table, a value that indicates whether the variable is to be used or ignored.

Key Performance Indicator (KPI)

a measurement that shows whether an organization is progressing toward its stated goals.

keyword parameter
a parameter that is identified by name. For example, consider the macro call

```
%CPDUPDSN (SOURCE=WWW);
```

In that macro call, 'SOURCE' is a keyword parameter that specifies the input for the macro %CPDUPDSN. Keyword parameters can be used in any order on the macro call, but they must follow any positional parameters.

libref (library reference)
a short name (or alias) for the full physical name of a SAS library. A SAS LIBNAME statement maps the libref to the full physical name. A libref is the first part of a multi-level SAS filename and indicates the SAS library in which a SAS file is stored. For example, in the name SASUSER.ACCTS, SASUSER is the libref, and ACCTS is a file in the library that the SASUSER libref refers to. See also SAS library.

local macro variable
a macro variable that is available only within the macro in which it was created and within macros that are invoked from within that macro. A local macro variable ceases to exist when the macro that created it stops executing. See also global macro variable.

machine
any type of data processing hardware that can be recognized by SAS IT Resource Management as a single unit. A machine can be a single physical machine such as a computer, a router, or a telephone switch. It can also be a logical entity such as a logical partition of an IBM z Series system or a domain on the Solaris operating system. A computer in which multiple CPUs share the same memory could also be regarded as a single machine.

macro
a SAS catalog entry that contains a group of compiled program statements and stored text.

macro call
the programming code that invokes a macro.

macro source
another term for macro call.

macro variable
a variable that is part of the SAS macro programming language. The value of a macro variable is a string that remains constant until you change it. Macro variables are sometimes referred to as symbolic variables.

mean
the arithmetic average, which is calculated by adding the values of a sample variable and dividing this sum by the number of observations.

metadata
data about data. For example, metadata typically describes resources that are shared by multiple applications within an organization. These resources can include software, servers, data sources, network connections, and so on. Metadata can also be used to define application users and to manage users' access to resources. Maintaining metadata in a central location is more efficient than specifying and maintaining the same information separately for each application.

metadata repository
a collection of related metadata objects, such as the metadata for a set of tables and columns that are maintained by an application. A SAS Metadata Repository is an example.

method

in object-oriented methodology, an operation that is defined for a class and which can be executed by an object that is created from that class. Methods can be defined in SCL and can be implemented with SCL routines.

middle tier

in a SAS business intelligence system, the tier in which J2EE Web applications and J2EE enterprise applications execute.

migrate

the process of moving a SAS IT Resource Management 2.7 performance data warehouse (PDB) into a SAS IT Resource Management 3.1.1 IT data mart. This process involves the following tasks: defining metadata for libraries, tables, and columns that are used by SAS IT Resource Management 3.1.1; defining staging and aggregation jobs and transformations in SAS IT Resource Management 3.1.1; creating the physical IT data mart, libraries, tables, and columns that are used by SAS IT Resource Management 3.1.1; and copying the SAS IT Resource Management 2.7 PDB data into the SAS IT Resource Management 3.1.1 tables.

missing value

in SAS, a term that describes the contents of a variable that contains no data for a particular row or observation. By default, SAS prints or displays a missing numeric value as a single period, and it prints or displays a missing character value as a blank space.

multi-tier architecture

a distributed architecture in which multiple components interact with each other in multiple configurations.

MXG software

a collection of SAS programs (from Merrill Consultants) that operates on raw performance data that is created by z/OS, VM, and AS/400 operating systems and subsystems, and by other programs that log data in the same format.

n-tier architecture

a type of network architecture that is used in the development of relational business applications. N-tier architecture separates an application's interface, its business logic, and its databases into components, or tiers. This approach enables the tiers to interact with each other in multiple configurations. The tiers can easily be used and reused in new combinations in order to meet dynamic business requirements.

navigate

to purposefully move from one view of the data in a table (or in some other data structure, such as a cube) to another. Drilling down and drilling up are two examples of navigation.

network

a configuration of data processing devices and software that are connected for the purpose of information exchange.

object

in object-oriented methodology, a specific representation of a class. An object inherits the characteristics (attributes or instance variables) of its class as well as the operations (methods) that class can execute. For example, a push button object is an instance of the Push Button class. The terms object and instance are often used interchangeably.

operating environment

a computer, or a logical partition of a computer, and the resources (such as an operating system and other software and hardware) that are available to the computer or partition.

palette
a stored set of SAS and SAS/GRAPH options, such as colors and patterns, that can be associated with one or more report definitions.

parameter
a data item that is passed to a routine. In the SAS macro facility, a parameter is a constant or variable that is passed to the macro routine when the routine is invoked. See also keyword parameter, positional parameter.

performance data
information about how your IT system is doing its work. You use this information to determine whether your system is doing work efficiently and to determine how to change its load or its tunable parameters so that it will perform more efficiently.

PGMLIB
the libref (library reference name) and library name for a SAS IT Resource Management program library that is on the local server host. See also RPGMLIB.

positional parameter
in a SAS macro, a parameter that is identified only by its position in the definition and invocation of the macro. Positional parameters must be separated by commas. If a positional parameter is not used, a comma must be inserted to indicate that the parameter is not being used. For example, if filename is the second positional parameter in a macro, you would either type the name of your data file in the second position (parm1, filename, parm3), or use a comma as a placeholder (parm1, , parm3).

process
a functional unit of a program or task.

program library
the SAS library in which most of the SAS IT Resource Management software resides. For example, the master data dictionary resides in the program library. See also PGMLIB, RPGMLIB.

property
any of the characteristics of a component that collectively determine the component's appearance and behavior. Both attributes and methods are types of properties.

protocol
a set of rules that govern data communications between computers, between computers and peripheral devices, and between software applications. TCP/IP, FTP, and HTTP are examples of protocols.

publication channel
an information repository that has been established using the SAS Publishing Framework and which can be used to publish information to users and applications. See also publish.

publish
to deliver electronic information to interested users in a timely manner. Enterprise Guide enables users to publish data and the results of tasks to predefined channels. Channels are essentially information repositories to which users subscribe. Any information that is published to a channel is delivered to all of that channel's subscribers. Each subscriber specifies how the information is delivered.

ranking
the process of ordering observations according to values of particular variables.

raw data
data that has not been read into a SAS data set.

report
a graph or text that is generated by running a report definition.

report definition
a specification that is used for generating a report. A report definition includes information such as the table and level, the names of the variables, the report style, and other attributes.

report gallery
another term for gallery.

repository
a location in which data, metadata, or programs are stored, organized, and maintained, and which is accessible to users either directly or through a network. See also metadata repository, SAS Metadata Repository, WebDAV repository.

repository access control template
the access control template (ACT) that controls access to a particular repository and to resources for which access controls are not specified. You can designate one repository ACT for each metadata repository. The repository ACT is also called the default ACT.

resource
in system performance, a part of the computer system, such as memory or CPU time.

return code
a value returned by an SCL function that indicates whether the function successfully accomplished the specified task.

RPGMLIB
the libref (library reference name) for the program library on a remote server host. See also PGMLIB.

SAS catalog
a SAS file that stores many different kinds of information in smaller units called catalog entries. A single SAS catalog can contain several different types of catalog entries, such as graphs (.GRSEGs) and source code (.SOURCEs). See also SAS catalog entry.

SAS catalog entry
a separate storage unit within a SAS catalog. Each entry has an entry type that identifies its purpose to SAS. Some catalog entries contain system information such as key definitions. Other catalog entries contain application information such as window definitions, Help windows, SAS formats and informats, macros, or graphics output.

SAS data set
a file whose contents are in one of the native SAS file formats. There are two types of SAS data sets: SAS data files and SAS data views. SAS data files contain data values in addition to descriptor information that is associated with the data. SAS data views contain only the descriptor information plus other information that is required for retrieving data values from other SAS data sets or from files whose contents are in other software vendors' file formats.

SAS data view
a type of SAS data set that retrieves data values from other files. A SAS data view contains only descriptor information such as the data types and lengths of the variables (columns), plus other information that is required for retrieving data values from other SAS data sets or from files that are stored in other software vendors' file formats. SAS data views can be created by the SAS DATA step and by the SAS SQL procedure.

SAS datetime value
an integer that represents a date and a time in SAS software. The integer represents the number of seconds between midnight, January 1, 1960, and another specified date and time. For example, the SAS datetime value for 9:30 a.m., June 5, 2000, is 1275816600.

SAS Foundation Services
a set of core infrastructure services that programmers can use in developing distributed applications that are integrated with the SAS platform. These services provide basic underlying functions that are common to many applications. These functions include making client connections to SAS application servers, dynamic service discovery, user authentication, profile management, session context management, metadata and content repository access, activity logging, event management, information publishing, and stored process execution. See also service.

SAS IT Resource Management client
a computer on which SAS IT Resource Management software is installed with a client license. The client accesses IT data marts on servers through a telecommunications protocol such as TCP/IP.

SAS IT Resource Management server
a computer on which SAS IT Resource Management software is installed with a server license. The server has 'write' access to the IT performance data in IT data marts and is used for processing data through the host operating environment's file system. In addition, the server is used for administering IT data marts.

SAS library
a collection of one or more files that are recognized by SAS and that are referenced and stored as a unit. Each file is a member of the library.

SAS Metadata Repository
one or more files that store metadata about application elements. Users connect to a SAS Metadata Server and use the SAS Open Metadata Interface to read metadata from or write metadata to one or more SAS Metadata Repositories. The metadata types in a SAS Metadata Repository are defined by the SAS Metadata Model.

SAS procedure
a program that provides specific functionality and that is accessed with a PROC statement. For example, SAS procedures can be used to produce reports, to manage files, or to analyze data. Many procedures are included in SAS software.

SAS Stored Process
a SAS program that is stored in a central location and which can be executed from the SAS Information Delivery portal at the user's request. When a stored process is executed, it creates a report that includes the most current data that is available. Stored processes can display input forms that enable users to customize the contents of reports.

scheduled job
in SAS IT Resource Management, one of a set of batch jobs that typically run at night.

server
See SAS IT Resource Management server.

service
one or more application components that an authorized user or application can call at any time to provide results that conform to a published specification. For example, network services transmit data or provide conversion of data in a network, database services provide for the storage and retrieval of data in a database, and Web services interact with each other on the World Wide Web. See also SAS Foundation Services.

slowly changing dimensions
a technique for tracking changes to dimension table values in order to analyze trends. For example, a dimension table named Customers might have columns for Customer ID, Home Address, Age, and Income. Each time the address or income changes for a customer, a new row could be created for that customer in the dimension table, and the old row could be retained. This historical record of changes could be combined with purchasing information to forecast buying trends and to direct customer marketing campaigns.

staged data
raw data that has been read, possibly transformed, and either written to a SAS data set or made available through a SAS data view.

staging code
SAS statements that read raw data, transform it, and either write it to a SAS data set or make it available through a SAS data view.

summarize
in aggregations, to accumulate data into tables according to specifications that are defined by the user.

supplied format
a format that is shipped with SAS IT Resource Management.

supplied report definition
a report definition that is shipped with SAS IT Resource Management.

supplied software
software that is shipped with SAS IT Resource Management.

table
a two-dimensional representation of data, in which the data values are arranged in rows and columns.

table definition
1) the attributes of a particular table. 2) the attributes of a table and the attributes of its associated variables. 3) the attributes of a table and of its associated variables, plus the status information about the data that is associated with the table and its variables. The meaning that is intended is explained where the term is used. See also table.

text report
a report that tabulates or prints data values or which produces low-resolution graphics. See also graph report.

throughput
the rate at which requests for work are serviced by a computer system.

transformation
in SAS Data Integration Studio, a metadata object that specifies how to extract data, transform data, or load data into data stores. Each transformation that you specify in a process flow diagram generates or retrieves SAS code. You can specify user-written code in the metadata for any transformation in a process flow diagram.

tuning
the process of tracking the performance of an IT service, comparing the performance to service objectives in order to identify bottlenecks and hardware problems, and then adjusting the service to eliminate the problems. Tuning also involves distributing work equitably to the available computer hardware in order to optimize the use of resources.

utilization
1) for resources that can be partially occupied (for example, memory), the fractional usage of a resource. 2) for resources that cannot be partially busy (for example, a CPU), the ratio of time that a resource is being used to the total elapsed time.

variable
a column in a SAS data set or in a SAS data view. The data values for each variable describe a single characteristic for all observations. Each SAS variable can have the following attributes: name, data type (character or numeric), length, format, informat, and label.

Web browser
a software application such as Microsoft Internet Explorer or Netscape Navigator that provides access to information that is on the Internet or on your company's intranet.

Web gallery
another term for gallery.

Web-enabled report
a report that has attributes that enable it to be displayed by a Web browser.

WebDAV (Web Distributed Authoring and Versioning)
a set of extensions to the HTTP protocol that enables users to collaboratively edit and manage files on remote Web servers.

WebDAV repository
a collection of files that are stored on a Web server so that authorized users can read and edit them. See also WebDAV (Web Distributed Authoring and Versioning).

weight
a numerical coefficient that is assigned to an item and which indicates the relative importance of the item in a frequency distribution or population.

weighting variable
a variable whose values represent the weights for each observation.

WHERE clause
one or more WHERE expressions used in a WHERE statement, a WHERE function, or a WHERE= data set option. See also WHERE expression.

WHERE expression
a type of SAS expression that specifies a condition for selecting observations for processing by a DATA step or a PROC step. WHERE expressions can contain special operators that are not available in other SAS expressions. WHERE expressions can appear in a WHERE statement, a WHERE= data set option, a WHERE clause, or a WHERE command.

wizard
an interactive utility program that consists of a series of dialog boxes, windows, or pages. Users supply information in each dialog box, window, or page, and the wizard uses that information to perform a task.

workload
the amount of work a system is experiencing. Workload can be measured in terms such as characters per second, processes per second, or transactions per second.

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