Statistics Enable Tables

When Do Default Statistics Get Enabled?

In early versions of StrataView Plus, the statistics from the **usr_def_en.tab** and **def_en.tab** files were enabled only when StrataView Plus was first plugged into the network, after a full database erasure, or when a new object was added to the network (in which case they were applied only to that new object).

That is not the case in current versions of StrataView Plus. The statistics in the **usr_def_en.tab** and **def_en.tab** files are applied whenever StrataView Plus is started up and also whenever a new object is added to the network (in which case they are applied only to the new object). This method of statistic enabling allows the user to apply new statistics to an entire network simply by shutting down and starting up the StrataView Plus product.

Default statistics will never be applied if that particular statistic was disabled by the user for a particular object. When statistics for an object are disabled, a flag is set in the Informix database for that specific statistic for that specific object. This flag ensures that the statistics for that object will not be accidentally enabled again if StrataView Plus is stopped and started. Once a statistic is disabled, it can be re-enabled only through the enable stats feature in SCM.

How Does Informix Treat Enabled Statistics?

There are thirty three tables in the Informix database. One of these tables is called "stat_enable". It contains one row for every statistic that has ever been enabled for every undeleted object in the system. When a statistic is enabled, a row is added to this table that contains the following fields (as of Release 8.1):

obj_id	A unique identifier for each connection, circuit line, packet line, and frame relay port in the system. This field maps to the **connection**, **circuit_line**, **packet_line**, and **frp** Informix tables.
l_node_id	The StrataView Plus node designator. This is not usually the same as the IPX node designator. This field maps to the node Informix table.
object_type	A number indicating whether object type is a voice, data, or frame relay connection, a T1 or E1 circuit line, a T1, E1 or subrate packet line, or a frame relay port. This field maps to the **connection**, **circuit_line**, **packet_line**, and **frp** Informix tables.
stat_type	Statistic type number. This maps to the default enable tables' statistic numbers.

bucket_type	The bucket size in minutes.
owner_netw_id	Number of the network or structured-network domain. This maps to the **config.sv** file.
owner_node_id	The StrataView Plus node number corresponding to the owner of the object. This is not always the same as l_node_id. This also maps to the node Informix table.
num_buckets	The number of buckets stored in the PCC's statistical space. This maps to the **stat.def** file.
bucket_size	The size of the data bucket in bytes. This maps to the **stat.def** file.
retain_peak	A code number indicating whether or not peaks are being kept for the statistic, and if so, how long a period for the peak.
auto_stat	Flag indicating whether the statistic is enabled by the StrataCom **def_en.tab** file. Set to 1 to enable; 0 to disable.
enable_flag	Flag enabling or disabling the statistic. Set to 1 to enable; 0 to disable. Initially set to 1.
collect_interval	The collection interval in minutes.
enable_time	The standard C-language timestamp of when the statistic was enabled. This number is the number of seconds, GMT, since midnight, January 1, 1970.
retain_period	The retention period for the statistic in minutes.

Most of these fields also map to the eight Informix data tables.

Row Insertion and Deletion in the stat_enable File

When a statistic is enabled, the appropriate row in the **stat_enable** file is created. This row is erased only if the object corresponding to the statistic is deleted from the network.

If the statistic is disabled, the enable_flag field is set to 0. This tells the system not to re-enable this statistic at StrataView Plus start-up time. If the statistic is re-enabled (which can only be done by the Enable Statistics menu item), then this row is deleted and a new row inserted into the **stat_enable** file.

Since the row is removed only when StrataView Plus detects the deletion of the object, it is important to have StrataView Plus connected and in SV+ mode whenever connections, trunks, circuit lines, or nodes are deleted.