

# **Computer Gateway Parameter Reference Dictionary**

**CG09-540**



**Implementation  
Computer Gateway**

***Computer Gateway  
Parameter Reference  
Dictionary***

**CG09-540  
Release 500  
5/96**

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## About This Publication

This publication provides definitions of the CG parameters that appear on configuration forms and Universal Station displays. Each parameter definition consists of a description, the source of the parameter, access lock, value type, and value range.

This publication provides you with information that can be used for

- Filling out the CG configuration forms.
- Data entity building.
- System operation.

The contents of this publication support TDC 3000<sup>X</sup> Release 500.



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# Table of Contents

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<b>1</b>	<b>INTRODUCTION</b>
1.1	General
1.2	Notation
<b>2</b>	<b>CONFIGURABLE PARAMETERS FOR ACIDP/CRDP DATA-POINT TYPES</b>
<b>3</b>	<b>PARAMETER DEFINITIONS</b>
<b>4</b>	<b>CG CONFIGURATION ENTRIES</b>



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# Table of Contents

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<b>1</b>	<b>INTRODUCTION</b>
1.1	General
1.2	Notation
<b>2</b>	<b>CONFIGURABLE PARAMETERS FOR ACIDP/CRDP DATA-POINT TYPES</b>
<b>3</b>	<b>PARAMETER DEFINITIONS</b>
<b>4</b>	<b>CG CONFIGURATION ENTRIES</b>



## INTRODUCTION Section 1

### 1.1 GENERAL

This manual provides information on all the Computer Gateway (CG) data-point parameters. Parameter definitions are arranged in alphabetical order. When using this manual to configure, you also need *Computer Gateway Forms*, (found in the *Implementation/Configuration Forms* binder) and *Computer Gateway Form Instructions*, (found in these binders: *Implementation/Computer Gateway* and *Implementation/CM50S*).

This manual is intended to be used as a quick reference to the characteristics of the CG parameters. You can use this manual to quickly determine what the parameter is, what values it may contain, and who is allowed access to it, without searching through several publications.

### 1.2 NOTATION

Parameter names that are listed in this manual are the mnemonics that appear within parentheses next to the long names of the parameters on the configuration forms and on the Universal Station displays. These names consist of up-to-eight alphanumeric characters, and are in boldface type with all capital letters, such as **ABORTCOD**, **ACCESKEY**, etc. When parameters names appear within the definition of another parameter, the parameter names are in capital letters, such as **RTPERIOD** and **ACT\_TYPE**.

Each parameter is treated in terms of the following: brief description, source, default value, access lock, value type, and value range. For example,

**Source**—Source of the parameter can be either the user, or the system, as follows:

User – Parameter is defined during configuration and can or cannot be changed during system operation, depending on the access lock.

System – Parameter value is provided by the system and can or cannot be changed depending on the access lock.

**Default Value**—Value that is automatically assigned to the parameter by the system when the user does not supply the value. In those cases where there is no default value, the default value is listed as N/A (Not Applicable).

**Access Lock**—Indicates who can change values in the parameter. (This is referred to as "write access;" there is no access lock for reading the values of a parameter.) A parameter can have one of the following levels of access (listed in priority order from the lowest to the highest):

Operator

Supervisor—also has access to operator-level functions.

Engineer—also has access to supervisor- and operator-level functions.

Program—such as a Control Language block or Advanced Control Program.

DEB—parameter has been defined during configuration and cannot be changed during system operation.

View—parameter can be viewed but not changed.

System—internal flag set by system software.

**Value Type**—Indicates the value type of the parameter as follows:

Array – Arrays can be of type Boolean, Enumeration, or Real.

Boolean – The value has two possible entries; On or Off.

Enumeration (Enum.) – The value for the parameter is to be chosen from a predefined enumeration that is assigned to a parameter.

Integer – The value is a whole number and does not contain a decimal point.

Real – The value is a number that contains a whole part and a fractional part.

String – The value contains a user-defined string of alphanumeric characters.

**Value Range**—The allowed values that can be entered for this parameter during configuration. The value can be an enumeration, integer, real number, or character string as defined by the above value types.

## CONFIGURABLE PARAMETERS FOR ACIDP/CRDP DATA-POINT TYPES

### Section 2

The configurable parameters that are applicable to the Advanced Control Interface Data Points (ACIDPs) and the Calculated Results Data Points (CRDPs) are listed in Tables 1 and 2. The parameters are listed in the order that they appear on the *Configuration Forms CG88-401* and *CG88-402*.

**Table 1 — ACIDP Parameters**

CG ACIDP POINT ASSIGNMENT DISPLAY
NAME
UNIT
PTDESC
KEYWORD
ACCESSKEY
ACT_TYPE
RUN_INIT
RTPERIOD
STIME
NOPKG
PKGNAME
RCASENB

**Table 2 — CRDP Parameters**

CG CRDP POINT ASSIGNMENT DISPLAY
NAME
UNIT
PTDESC
KEYWORD
NOPKG
PKGNAME



## PARAMETER DEFINITIONS Section 3

### ABORTCOD – Abort Code (ACIDP)

This parameter is a 4-character string that indicates the reason why the ACP was aborted in the host processor. It is initialized to zero when the data point is loaded, and when the CG is initialized.

**Source** System                      **Default Value** N/A                      **Access Lock** View

**Value Type** String

**Value Range** Abort codes are user-defined, and are composed of four ASCII characters, with 0000 (zero) used to indicate normal program termination.

### ACCESKEY – Access Key (ACIDP)

This parameter indicates whether the ACP (that is connected to this ACIDP) is permitted to perform read and write operations over the LCN.

**Source** User                      **Default Value** Readonly                      **Access Lock** Operator

**Value Type** Enumeration of ACCESKEY

**Value Range** Readonly = Allows only read operations over the LCN.  
Readwrit = Allows read and write operations over the LCN

### ACPRATE– ACP Turn-on Rate (PSDP)

This parameter contains the number of ACP turn-on messages during the most recent full 1-minute sample period.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Real

**Value Range** >= 0.0

**ACPROG – ACP Pathname (ACIDP)**

This parameter is an abbreviated pathname (bound-unit name) of the ACP as stored in the host processor.

**Source** System                      **Default Value** All Blanks                      **Access Lock** View

**Value Type** String

**Value Range** 12 ASCII characters

**ACT\_TYPE – Activation Type (ACIDP)**

This parameter is the activation mechanism for the ACP, i.e., scheduled and/or demand.

**Source** User                              **Default Value** Demand                              **Access Lock** DEB

**Value Type** Enumeration of ACT\_TYPE

**Value Range** Cyclic = Cyclic programs run at the time interval specified by the RTPERIOD (Cyclic/Periodic Point Execution Period) parameter. The first run is on any initialization event if RUN\_INIT = On; otherwise, first run follows the initialization event by the time interval specified by RTPERIOD.

Periodic = Periodic programs first run at the specified time of day as determined by the STIME (Periodic Point Start Time) parameter, and thereafter run at the time interval specified by the RTPERIOD (Cyclic/Periodic Execution Period) parameter. (Note: The STIME value must be less than the RTPERIOD value.) However, if RUN\_INIT = On, first run will occur on any initialization event, but subsequent runs are scheduled based on RTPERIOD offsets from STIME.

Cyc\_Dmd = Permits both cyclic and demand program execution. Refer to Cyclic and Demand entries that are defined above.

Per\_Dmd = Permits both periodic and demand program executions. Refer to the Periodic and Demand entries that are defined above.

Demand = Selects program execution (operation) when you require an immediate response.

**CFRMRR – FRMR Frames Received Count (PDSP)**

This parameter contains the count of FRMR frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(115).

**Source** System                              **Default Value** 0.0                              **Access Lock** DEB

**Value Type** Integer

**Value Range** >= 0.0

**CFRMRT – FRMR Frames Transmitted Count (PDSP)**

This parameter contains the count of FRMR frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(116).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CINFOR – Information Frames Received Count (PDSP)**

This parameter contains the count of information frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(101).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CINFOT – Information Frames Transmitted Count (PDSP)**

This parameter contains the count of information frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(102).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CNRERR – N(R) Error Frame Count (PDSP)**

This parameter contains the count of frames with N(R) errors. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(122).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CNSERR – N(S) Error Frame Count (PDSP)**

This parameter contains the count of frames with N(S) errors. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(123).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CONF\_RQD – Confirmation Required (ACIDP)**

This parameter is set when a message requiring operator confirmation has been received from the ULP and passed on to the Universal Stations. This parameter is reset when the the operator confirmation has been passed on to the ULP. It is also reset when the data point is loaded and on any initialization event.

**Source System**                      **Default Value** Off                      **Access Lock** System

**Value Type** Boolean

**Value Range**    On = Message confirmation is expected  
Off = No message confirmation is pending

**CONFWAIT – Confirmation Time Remaining (ACIDP)**

This parameter contains the count of seconds remaining before timeout of a message that requires operator confirmation. If it reaches zero, CONF\_RQD is reset and the requesting ACP is informed. This parameter is set to zero whenever CONF\_RQD is reset.

**Source System**                      **Default Value** N/A                      **Access Lock** System

**Value Type** Integer

**Value Range** 0 to 3600

**CPBTSR – P-Bit Frames Received Count (PDSP)**

This parameter contains the count of frames received with P bits. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(121).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CREJRX – REJ Response Frames Received Count (PDSP)**

This parameter contains the count of REJ response frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(111).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CREJTX – REJ Response Frames Transmitted Count (PDSP)**

This parameter contains the count of REJ response frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(113).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CRNRRX – RNR Response Frames Received Count (PDSP)**

This parameter contains the count of RNR response frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(107).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CRNRTX – RNR Response Frames Transmitted Count (PDSP)**

This parameter contains the count of RNR response frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(109).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CRRRX – RR Response Frames Received Count (PDSP)**

This parameter contains the count of RR response frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(103).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CRRTX – RR Response Frames Transmitted Count (PDSP)**

This parameter contains the count of RR response frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(105).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CSABMR – SABMS Received Count (PDSP)**

This parameter contains the count of SABMS received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(118).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CSABMT – SABMS Transmitted Count (PDSP)**

This parameter contains the count of SABMS transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(119).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**CTIMOT – Timeout Counter Count (PDSP)**

This parameter contains the count of the timeout counter. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(117).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**DDTGRAT(n) – DDT Get Rate (PSDP)**

These parameters contain the count of Data Definition Table get requests from the host processor where

- n = 1, is the count of parameters for the most recent full 1-minute sample period;
- n = 2, is the count of parameters for the previous 1-minute sample period;
- n = 3, is the count of ULP requests for the most recent full 1-minute sample period;
- n = 4, is the count of ULP requests for the previous 1-minute sample period;
- n = 5 through 10, are reserved.

**Source System**                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**DDTSRAT(n) – DDT Store Rate (PSDP)**

These parameters contain the count of Data Definition Table store requests from the host processor where

- n = 1, is the count of parameters for the most recent full 1-minute sample period;
- n = 2, is the count of parameters for the previous 1-minute sample period;
- n = 3, is the count of ULP requests for the most recent full 1-minute sample period;
- n = 4, is the count of ULP requests for the previous 1-minute sample period;
- n = 5 through 10, are reserved.

**Source System**                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**DL1\_STS – Data Link 1 Status (PSDP)**

This parameter contains the current status of Data Link 1.

**Source** System                      **Default Value** N/A                      **Access Lock** View

**Value Type** Enumeration of EQPT\_STS

**Value Range** In\_Serv = Link has been connected and the CG is using or trying to use it.

Failed = The CG has disconnected this link because of problems.

**DL2\_STS – Data Link 2 Status (PSDP)**

This parameter contains the current status of Data Link 2.

**Source** System                      **Default Value** N/A                      **Access Lock** View

**Value Type** Enumeration of EQPT\_STS

**Value Range** In\_Serv = Link has been connected and the CG is using or trying to use it.

Failed = The CG has disconnected this link because of problems.

Not\_Inst = The CG is configured for operation on Link 1 only.

**EXECSTAT – Execution Status (ACIDP)**

This parameter indicates the present execution state of the ACP that is connected to this ACIDP. It is set to Off when the data point is loaded and when the CG is initialized. The CG maintains this parameter as described below.

**Source System**                      **Default Value** N/A                      **Access Lock** View

**Value Type** Enumeration of EXECSTAT

**Value Range** Abort = ACP is abnormally terminated; error code is shown by ABORTCOD parameter.

Access = CG is servicing a Get/Store call from the ACP.

Delay = For Cyclic/Periodic programs, this indicates that the ACP is not running, but will run at the next run time as specified by the NEXT\_RTM parameter.

Off = For Demand programs, this indicates that the ACP is not running.

Run = ACP is running.

Wait = ACP is waiting for the operator to confirm a message sent by the ACP.

Fail = Both data links have failed, or the host processor has failed.

**GHISTR(n) – Get History Rate (PSDP)**

These parameters contain the count of Get History requests from the host processor where  
 n = 1, is the count of returned items for the most recent full 1-minute sample period;  
 n = 2, is the count of returned items for the previous 1-minute sample period;  
 n = 3, is the count of ULP requests for the most recent full 1-minute sample period;  
 n = 4, is the count of ULP requests for the previous 1-minute sample period;  
 n = 5 through 10, are reserved.

**Source System**                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**GPARGRT(n) – Single Parameter Get Rate (PSDP)**

These parameters contain the count of single point parameter get requests from the host processor where

- n = 1, is the count of parameters for the most recent full 1-minute sample period;
- n = 2, is the count of parameters for the previous 1-minute sample period;
- n = 3, is the count of elements the most recent full 1-minute sample period;
- n = 4, is the count of elements for the previous 1-minute sample period;
- n = 5 through 10, are reserved.

Counts for both parameters and elements are provided because a parameter that is an array consists of a number of elements, each of which is a separate value. For example, a request for a parameter that is a 15-element array increases the count of parameters by one and the count of elements by 15.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**GPARSRT(n) – Single Parameter Store Rate (PSDP)**

These parameters contain the count of single-point parameter store requests from the host processor where

- n = 1, is the count of parameters for the most recent full 1-minute sample period;
- n = 2, is the count of parameters for the previous 1-minute sample period;
- n = 3, is the count of elements the most recent full 1-minute sample period;
- n = 4, is the count of elements for the previous 1-minute sample period;
- n = 5 through 10, are reserved.

Counts for both parameters and elements are provided because a parameter that is an array consists of a number of elements, each of which is a separate value. For example, a request for a parameter that is a 15-element array increases the count of parameters by one and the count of elements by 15.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**GROUP\_ID – Group Identifier (ACIDP & CRDP)**

This parameter is the task-group ID used for communications control between the CG and the host processor. It is initialized to all blanks at the time that the data point is loaded and when the CG is initialized.

**Source System**                      **Default Value** All Blanks                      **Access Lock** View

**Value Type** String

**Value Range** 2 ASCII characters

**INH\_STAT – Inhibit Status (ACIDP)**

This parameter controls the activation by this ACIDP of the ACP connected to it. It is set to inhibit activation at the time the data point is loaded, therefore, it must be set to PERMIT by operator or program action before the ACP can be activated by the CG. Whenever the CG is reinitialized, the latest available checkpoint value is used.

**Source System**                      **Default Value** Inhibit                      **Access Lock** Operator

**Value Type** Enumeration of INH\_STAT

**Value Range** Inhibit = Prevents activation of the ACP.

Permit = Allows activation of the ACP.

**KEYWORD – Point Key Word (ACIDP & CRDP)**

The point key word can be used to describe an important aspect of this particular data point, and it appears on the Group and Detail Displays for this data point.

**Source** User                      **Default Value** All Blanks                      **Access Lock** Engineer

**Value Type** String

**Value Range** Up to 8 characters. Permissible character set consists of: Alphabets A-Z (upper-case only) Numerics 0-9 (an all-numeric key word is not permissible) Underscore ( ) cannot be used as the first character and consecutive underscores are not allowed.

**LRSTCT – Logical Link Reset Count (PDSP)**

This parameter contains the count of logical link resets. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(120).

**Source** System                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**NAME – Tag Name (ACIDP & CRDP)**

This parameter defines the name of the data point in the system. It is used to identify the data point in all displays, listings, messages, alarms, etc., throughout the system.

**Source** User                              **Default Value** All Blanks                      **Access Lock** DEB

**Value Type** String

**Value Range** The tag name can consist of up to 8 characters, but must consist of at least one. Permissible character set is as follows:

Alphabets A through Z (upper-case only).

Numeric 0 through 9 (all numeric tag name is not allowed).

Underscore ( \_ ) cannot be used as the first character or the last character in the tag name, and consecutive underscores are not allowed.

Embedded space characters are not allowed.

**NEXT\_RTM – Next Run Time (ACIDP)**

This parameter is the next run time used for the Periodic as well as the Cyclic activator. Its value is recalculated by the Scheduler program each time the ACP is scheduled to run. It is not used if the entry for the ACT\_TYPE parameter is Demand. See ACT\_TYPE for an explanation of scheduling initialization.

**Source** System                      **Default Value** N/A                      **Access Lock** View

**Value Type** String

**Value Range** This parameter consists of 18 characters that have the following format:

HH:MM:SSbMM:DD:YYb

where:                                      HH = Hours    MM = Month  
    MM = Minutes    DD = Day  
    SS = Seconds    YY = Year  
    b = Space (Blank)

**NMACIDP– Number of ACIDPs (PSDP)**

This parameter contains the number of ACIDPs built on this CG.

**Source** System                      **Default Value** 0                      **Access Lock** View

**Value Type** Integer

**Value Range** 0 - 32767 (Subject to CG point build limitations)

**NMCRDP– Number of CRDPs (PSDP)**

This parameter contains the number of CRDPs built on this CG.

**Source** System                      **Default Value** 0                      **Access Lock** View

**Value Type** Integer

**Value Range** 0 - 32767 (Subject to CG point build limitations)

**NOPKG – Number of Associated Packages (ACIDP & CRDP)**

This parameter defines the number of packages that are attached to this data point. A package is a related set of CL custom data-segments and GDF definitions that are applied to the data point as part of the central strategy. CL is the Control Language and GDF is the Global Description File, which consists of parameter-list definitions, enumeration-type parameters, and custom data-segments. Refer to *CL/AM Reference Manual*, in the *Implementation/Application Module - 2* binder.

**Source** User                      **Default Value** 0                      **Access Lock** DEB

**Value Type** Integer

**Value Range** 1 to 10

**OPER\_DMD – Operator Demand (ACIDP)**

When EXECSTAT is **not** Abort, this parameter allows the operator to demand execution of the attached ACP if the ACT\_TYPE value permits. When the operator selects (and enters) the PROCESS target on the ACIDP's Universal Station Detail Display, the CG requests the host processor to turn on the ACP that is connected to this data point. The ACT\_TYPE value must be Demand, Cyc\_Dmd, or Per\_Dmd.

When EXECSTAT is Abort, the effect of Operator Demand on the ACP depends on the value of RUN\_INIT (not on ACT\_TYPE).

If RUN\_INIT = ON—EXECSTAT is changed to Off/Delay and the ACP is activated. After successful activation, the value goes to Run but may quickly go back to Abort.

If RUN\_INIT = OFF—EXECSTAT is changed to Off/Delay, but the ACP is not activated. A second operator demand then turns the ACP on, if ACT\_TYPE permits.

**Source** User                      **Default Value** N/A                      **Access Lock** Operator

**Value Type** Boolean

**Value Range** On = Operator has requested ACP execution

Off = Parameter is set to this state during the loading of the data point and during the initialization of the CG. Parameter is reset from On to Off after the ACP turn-on request has been sent to the host processor.

**PKGNAME[i] – Package Name (ACIDP & CRDP)**

This parameter defines up to 10 file names for the CL packages (that contain custom data-segments) that are attached to this data point.

**Source** User                      **Default Value** N/A                      **Access Lock** DEB

**Value Type** Array

**Value Range** Each of the possible 10 file names consists of up to 8 characters.  
Permissible character set consists of Alphabetics A-Z and Numerics 0-9.

**PPS – Point Process Special (ACIDP)**

This parameter is available to an event from the HG, AM, or from a CM60 or host processor ACP, and when set On results in activation of the attached ACP.

**Source** System                      **Default Value** N/A                      **Access Lock** Program

**Value Type** Boolean

**Value Range** On = A point process-special is requested.

Off = Parameter is set to this state at point load time or at CG initialization time. The CG resets this parameter to off when the request to activate the ACP is sent to the host processor.

**PROGSTAT – Installed State (ACIDP)**

This parameter indicates the installed state of the ACP.

**Source** System                      **Default Value** N/A                      **Access Lock** View

**Value Type** Enumeration of PROGSTAT

**Value Range** Not\_Inst = Not Installed; set to this state during point-load time.

Test = Test input values used for GetData, StoreData values are not exported to the LCN.

Restrict = Live input values used for GetData, StoreData values are not exported to the LCN.

Normal = Both GetData and StoreData values are honored at the LCN.

**PTDESC – Point Descriptor (ACIDP & CRDP)**

This parameter is used to describe the data point and it appears on the Group and Detail Displays for this data point. The point descriptor appears on the Group Display only when the data point is selected.

**Source** User                      **Default Value** All Blanks                      **Access Lock** Engineer

**Value Type** String

**Value Range** The point descriptor can consist of up to 24 characters and the permissible character set is as follows:

Alphabets A through Z (upper case only).

Numerics 0 through 9, Periods and spaces are permissible.

There are no restrictions on using numerics and underscores.

**RCASENB – Remote Cascade Enable Flag (ACIDP)**

This parameter provides the capability to enable continuous (AM like) control to a slot on a process connected box (Hiway or UCN devices). Continuous or cascade control implies that the process connected slot/point will fail to its local backup control mode if an SP or OP store is not performed within the time span of the slot's shed timer (BOXTOGn/SHEDTIME). The SP or OP store is performed by an ACP program in an upper level processor (e.g., a CM50S) which is attached to an ACIDP point in the CG.

When this parameter's value is On, continuous control is enabled; when its value is Off, control reverts to the normal control state which is program control.

To properly use continuous control, the ACP program must conform to these continuous control rules:

- The process connected box and Hiway/UCN must be in FULL control.
- The ACP establishes cascade to the process-connected slot by storing the value of Cas to the MODE parameter when the ACP detects that the CASREQ parameter's value is Request.
- The ACP program should delay for at least one second after storing the MODE parameter value before storing the SP or OP parameter (this allows the process connected slot to initialize).
- The ACP needs to make use of secondary data parameters that reside in the process connected slot. Some of the important secondary data parameters are:
  - CASREQ
  - MODE and MODATTR
  - SP and OP
  - INITVAL and INITMAN
  - TRACK
  - RCASENB/RCASOPT
  - PVEUHI and PVEULO
  - SPEUHI and SPEULO
  - ARWNET and ARWOP
  - RCASSHED

**Source** User                      **Default Value** Off                      **Access Lock** Engineer

**Value Type** Boolean

**Value Range** On = Control is continuous or cascade.  
Off = Control is discontinuous or program.

**RECVRAT(n) – Receive Rate (PSDP)**

These parameters contain the count of data transmissions from the host processor to the CG during the most recent full 1-minute sampling period, where

- n = 1, is the number of transfers in words per minute;
- n = 2, is the number of transfers in blocks per minute;
- n = 3, is the number of transfers in messages per minute;
- n = 4 through 10 are reserved.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**REJCMR – REJ Command Frames Received Count (PDSP)**

This parameter contains the count of REJ command frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(112).

**Source** System                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**REJCMT – REJ Command Frames Transmitted Count (PDSP)**

This parameter contains the count of REJ command frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(114).

**Source** System                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**RNRCMR – RNR Command Frames Received Count (PDSP)**

This parameter contains the count of RNR command frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(108).

**Source** System                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**RNR CMT – RNR Command Frames Transmitted Count (PDSP)**

This parameter contains the count of RNR command frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(110).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**RRCMDR – RR Command Frames Received Count (PDSP)**

This parameter contains the count of RR command frames received. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(104).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**RRCMDT – RR Command Frames Transmitted Count (PDSP)**

This parameter contains the count of RR command frames transmitted. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(106).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    >= 0.0

**RTPERIOD – Cyclic/Periodic Point Execution Period (ACIDP)**

| This parameter schedules programs. Its format is time in hours, minutes, and seconds.

**Source** User                      **Default Value** 00:00:10                      **Access Lock** DEB

**Value Type** String

**Value Range** 10 seconds (minimum) to 24 hours (maximum) in the following format:

HH:MM:SS

where HH = Hours, MM = Minutes, and SS = Seconds

Periodic programs first run at a specified daily start time (STIME) and thereafter at the time interval specified by RTPERIOD as follows:

Example 1 – RTPERIOD = 24:00:00 STIME = 17:00:00

The program will run each day at 17:00:00 hours.

Example 2 – RTPERIOD = 08:00:00 STIME = 07:00:00

This program will run each day at the following times:

07:00:00, 15:00:00, and 23:00:00

Example 3 – RTPERIOD = 07:00:00 STIME = 01:00:00

This program will run each day at the following times:

01:00:00, 08:00:00, 15:00:00, and 22:00:00

Cyclic programs run at the time interval specified by the RTPERIOD parameter value.

**NOTE**

1. It is recommended that cyclic/periodic ACPs be initially scheduled with long periods or be demanded to see how long they actually run before selecting the actual period.
2. If the RTPERIOD in an ACIDP is short (close to the time required for the ACP), change the parameter INH\_STAT for the ACP or uninstall from the Universal Station, wait for the ACP to terminate (as indicated by the DELAY status on the ACIDP display at the Universal Station), and then disconnect the ACP from the ACIDP.

**RUN\_INIT – Run After Initialization (ACIDP)**

This parameter informs the Point Scheduler to turn on the ACP that is connected to this ACIDP immediately after one of the following initialization events:

1. The CG is initialized (power-up and software load; cold restart)
2. The host processor is initialized or both data links are restarted (warm restart)
3. The ACIDP is initialized (ACP is connected to the ACIDP, or on operator demand of an Aborted ACP).

**Source** User                      **Default Value** Off                      **Access Lock** DEB

**Value Type** Boolean

**Value Range** On = Informs the point scheduler to turn on the ACP that is connected to this ACIDP when an initialization event occurs when PROGSTAT = NORMAL and INH\_STATE = PERMIT.

Off = No turn-on message is to be issued to the Point Scheduler after an initialization event. Normal cyclic/periodic scheduling continues when an initialization event occurs.

**STIME – Start Time for Periodic Program (ACIDP)**

This parameter specifies the first time of day that a periodic program is to be run. The start time is not applicable if the entry for the ACT\_TYPE (Activation Type) parameter is Demand only. STIME must be less than or equal to RTPERIOD.

**Source** User                      **Default Value** 00:00:00                      **Access Lock** DEB

**Value Type** String

**Value Range** Up to 24 Hours (maximum) in the following format:

HH:MM:SS

where HH = Hours, MM = Minutes, and SS = Seconds

**TAKE\_I\_P – Take Initialization Path (ACIDP)**

This parameter is passed to the host processor together with the turn-on message to indicate that one of the following initialization events has occurred:

1. The CG is initialized (power-up and software load; cold restart)
2. The host processor is initialized or both data links are restarted (warm restart)
3. The ACIDP is initialized (ACP is connected to the ACIDP or on operator demand of an Aborted ACP).

The ACP may use this information to take its initialization path, if desired. Note that CL or other ACP programs can set this parameter to On to notify the ACP to take its initialization path the next time that this ACP is turned on.

**Source System**                      **Default Value** N/A                      **Access Lock** Program

**Value Type** Boolean

**Value Range** On = CG sets this parameter to On to indicate that an initialization event has taken place.

Off = CG resets this parameter to Off each time a turn-on message is sent to the host processor for the ACP that is connected to this data point.

**TRFLAG – Trace Option Flag (PDSP)**

This parameter contains the trace option flag. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(125).

**Source System**                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    = 0                      - no trace  
                               \$FFFF - trace

**UDSIPRAT(n) – User Display Input Rate (PSDP)**

These parameters contain the count of data transmissions from the US to the CG during the most recent full 1-minute sampling period, where

- n = 1, is the number of transfers in words per minute;
- n = 2, is the number of transfers in blocks per minute;
- n = 3, is the number of transfers in messages per minute;
- n = 4 through 10 are reserved.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range**  $\geq 0.0$

**UDSOPRAT(n) – User Display Output Rate (PSDP)**

These parameters contain the count of data transmissions from the CG to the US during the most recent full 1-minute sampling period, where

- n = 1, is the number of transfers in words per minute;
- n = 2, is the number of transfers in blocks per minute;
- n = 3, is the number of transfers in messages per minute;
- n = 4 through 10 are reserved.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range**  $\geq 0.0$

**ULP\_STS – Host Processor (PSDP)**

This parameter contains the current status of communications with the host processor.

**Source** System                      **Default Value** N/A                      **Access Lock** View

**Value Type** Enumeration of EQPT\_STS

**Value Range** In\_Serv = Communications with the host processor have been established and restart is complete.

Failed = Communications with the host processor are broken; both links have failed.

**UNIT– Unit ID**

This parameter defines the unit to which this data point is assigned. The unit identifier appears on the Detail Display for this data point as shown in Figure N-1, and in other displays and listings throughout the system. In the example shown in Figure N-1, the unit identifier is XX. (The unit identifiers are originally defined during network configuration).

**Source** User                      **Default Value** All Blanks                      **Access Lock** DEB

**Value Type:** String

**Value Range:**                      The unit identifier can consist of one or two characters and the valid character set is as follows:

- Alphabets A through Z (upper-case only).
- Numerics 0 through 9 (an all numeric identifier is permissible).
- Underscores are not permitted.
- No leading blanks (spaces).
- A single character with a trailing space is not permitted.

Restriction: After a unit identifier has been defined, it should be written exactly the same way each time when the same identifier is to be used. As an example, if the unit identifier was defined as 03, it should be written as 03 and not as 3 for each usage of this unit identifier.

**NOTE**

A Real number is returned for this parameter by the Picture Editor and by CL. This number is equivalent to the ordinal number in the enumeration list of units.

**XMITRAT(n) – Transmit Rate (PSDP)**

These parameters contain the count of data transmissions from the CG to the Host Processor during the most recent full 1-minute sampling period, where

- n = 1, is the number of transfers in words per minute;
- n = 2, is the number of transfers in blocks per minute;
- n = 3, is the number of transfers in messages per minute;
- n = 4 through 10 are reserved.

**Source** System                      **Default Value** 0.0                      **Access Lock** View

**Value Type** Array [1..10] of Real

**Value Range** >= 0.0

**XWRAP – Trace Wrap Option Flag (PDSP)**

This parameter contains the trace wrap option flag. This is an HDLC-only parameter and can be read only via the external ID: \$PRSTSnn.\$CGINTGR(124).

**Source** System                      **Default Value** 0.0                      **Access Lock** DEB

**Value Type** Integer

**Value Range**    = 0                      - no trace  
                               \$FFFF - trace



## CG CONFIGURATION ENTRIES

### Section 4

These entries are presented in the order they are found on the *CG Configuration Form, CG88-403*. Additional information about each entry is available through the HELP key while the CG Configuration Display is on screen.

Choice of a value by target selection (for example, baud rate) rather than by value entry results in assignment of an integer value used by the system. The integer value assignments are shown below [in brackets] next to the corresponding target choices.

**Entry Name** CM Node Number **Default Value** none

Enter the Computer Gateway's physical node number. If this is a single-digit number, you must first enter a leading zero. This entry defines the nn in the Point ID \$PRSTSnn.

**Entry Name** User comment **Default Value** all blanks

If wished, enter up-to-40-character title. For example, you could identify the subsystem connected to the CG. Read only via external ID: \$PRSTSnn.\$CGSTRNG(1).

**Entry Name** Time Synch Period **Default Value** 15

Establishes the number of seconds between time synchronization messages sent by the CG to the host processor. Integer value in range 15 to 1000. Read only via external ID: \$PRSTSnn.\$CGINTGR(1).

**Entry Name** Confirmation Timeout **Default Value** 10

Establishes the maximum time in seconds allowed for the host processor to respond to the CG. Integer value in the range of 1 to 255. Read only via external ID: \$PRSTSnn.\$CGINTGR(2).

**Entry Name** Floating Point Conversion **Default Value** DPS6

Controls conversion of floating point numbers between the TDC 3000 representation and one of the following formats: DPS6 [0], IBM [1], or IEEE 754 [2]. Read only via external ID: \$PRSTSnn.\$CGINTGR(3).

**Entry Name** Baud Rate **Default Value** 76800

Baud rate is selected from the following: 1200 [0], 1760 [1], 2152 [2], 2400 [3], 4800 [5], 9600 [7], 19200 [8], 38400 [13], 56700 [14], 76800 [15]. Read only via external ID: \$PRSTSnn.\$CGINTGR(4).

**Entry Name** Link Protocol **Default Value** Bisynch

The choices are: Bisynch [0] and HDLC\_LAPB [1]. Read only via external ID: \$PRSTSnn.\$CGINTGR(5).

**Entry Name** Number of Links (Bisynch only) **Default Value** 2 Links

Select 1 Link [1] for half duplex operation, or 2 Links [2] for full duplex operation. The selection of HDLC forces this value to 1 Link because HDLC\_LAPB operates full duplex over one link (line 1 connector). Read only via external ID: \$PRSTSnn.\$CGINTGR(6).

**Entry Name** Mastership (Bisynch only) **Default Value** Secondary

Defines the primary responsibility to resolve link access contention. Select Primary [0] to assign responsibility to the CG; or Secondary [1] to assign responsibility to the host processor. Read only via external ID: \$PRSTSnn.\$CGINTGR(7).

**Entry Name** ENQ Retries (Bisynch only) **Default Value** 7

Defines the number of times in succession that the CG transmits ENQ before presuming link failure. Integer value in range 1 to 255. Read only via external ID: \$PRSTSnn.\$CGINTGR(8).

**Entry Name** NAK Retries (Bisynch only) **Default Value** 7

Defines the number of times in succession that the CG transmits NAK before presuming link failure. Integer value in range 1 to 255. Read only via external ID: \$PRSTSnn.\$CGINTGR(9).

**Entry Name** Communication Block Size (Bisynch only) **Default Value** 512

Defines the size (in 16-bit words) of the communication block. Use the default value of 512 words. Read only via external ID: \$PRSTSnn.\$CGINTGR(13).

**Entry Name** Receive Timeout (Bisynch only) **Default Value** 70

Defines the number of clock ticks that expire before the data link receive is considered timed out. (There are 50 milliseconds per tick, thus a value of 20 equates to 1000 milliseconds or 1 second.) Use the default value of 70. Read only via external ID: \$PRSTSnn.\$CGINTGR(14).

**Entry Name** Transmit Timeout (Bisynch only) **Default Value** 50

Defines the number of clock ticks that expire before the data link transmit is considered timed out. (There are 50 milliseconds per tick, thus a value of 20 equates to 1000 milliseconds or 1 second.) Use the default value of 50. Read only via external ID: \$PRSTSnn.\$CGINTGR(15).

**Entry Name** Station Address (HDLC only) **Default Value** CG = 1

Selection sets station identification for point-to-point link to CG = 1 and host processor = 3 or the reverse. Read only via external ID: \$PRSTSnn.\$CGINTGR(10).

**Entry Name** T1 Time Unit (HDLC only) **Default Value** 14

Enter (in tenths of a second) the time that the CG must allow between transmission of the last character of a message and the receipt of the first character of the response. Integer value in the range 1 to 9999. Read only via external ID: \$PRSTSnn.\$CGINTGR(11).

**Entry Name** N2 Count (HDLC only) **Default Value** 3

Establishes the number of times that the CG will retransmit the same information frame when it detects no acknowledgement. Integer value in range 1 to 999. Read only via external ID: \$PRSTSnn.\$CGINTGR(12).



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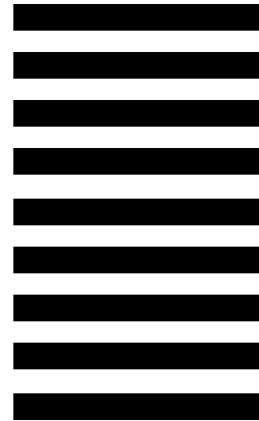
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