

VI.5.3C-RRS-TECH PROGRAM FCST FUNCTION RRS HCL TECHNIQUES

This Section describes the Hydrologic Command Language (HCL) Techniques used by the Operational Forecast Program Function RRS.

A detailed description of each Technique is in Section VI.5.3D [[Hyperlink](#)].

The Techniques used by Function RRS can be categorized as those:

- o often used
- o not often used
- o not used for forecasting

Technique Notes Description

Techniques Often Used

Techniques to specify the run period:

STARTRUN	<u>1/</u> <u>2/</u>	Sets the time for start of run
ENDRUN	<u>1/</u> <u>2/</u>	Sets the time for end of run
LSTCMPDY	<u>1/</u> <u>2/</u>	Sets the time for end of computational (observed data) period
LSTALLOW	<u>1/</u> <u>2/</u>	Sets the future time limit for the Technique LSTCMPDY

Techniques Not Often Used

General display control Techniques:

PRLASTDY	<u>1/</u> <u>2/</u>	Specifies if only the last day is to be displayed
RWWARN	<u>1/</u> <u>2/</u>	Specifies whether warning messages will be printed from the read/write subroutines

RRS display control Techniques:

OBSFUTWN	<u>2/</u>	Specifies whether warning messages will be printed if the user's specification of the last hour of observed data does not match the contents of the data base
RRSALLOB	<u>2/</u>	Specifies whether to display all observed data
RRSALLTS	<u>2/</u>	Specifies whether to display all time series data
RRSINMOB	<u>2/</u> <u>3/</u>	Specifies whether to display observed instantaneous miscellaneous data (Print Code INM <u>3/</u>)

<u>Technique</u>	<u>Notes</u>	<u>Description</u>
RRSINMTS	<u>2/ 3/</u>	Specifies whether to display instantaneous miscellaneous time series data (Print Code INM <u>3/</u>)
RRSINQOB	<u>2/ 3/</u>	Specifies whether to display observed instantaneous discharge data (Print Code INQ <u>3/</u>)
RRSINQTS	<u>2/ 3/</u>	Specifies whether to display instantaneous discharge time series data (Print Code INQ <u>3/</u>)
RRSMNMOB	<u>2/ 3/</u>	Specifies whether to display observed mean miscellaneous data (Print Code MNM <u>3/</u>)
RRSMNMTS	<u>2/ 3/</u>	Specifies whether to display mean miscellaneous time series data (Print Code MNM <u>3/</u>)
RRSMNQOB	<u>2/ 3/</u>	Specifies whether to display observed mean discharge data (Print Code MNQ <u>3/</u>)
RRSMNQTS	<u>2/ 3/</u>	Specifies whether to display mean discharge time series data (Print Code MNQ <u>3/</u>)
RRSRESOB	<u>2/ 3/</u>	Specifies whether to display observed reservoir data (Print Code RES <u>3/</u>)
RRSRESTS	<u>2/ 3/</u>	Specifies whether to display reservoir time series data (Print Code RES <u>3/</u>)
RRSSTGOB	<u>2/ 3/</u>	Specifies whether to display observed stage data (Print Code STG <u>3/</u>)
RRSSTGTS	<u>2/ 3/</u>	Specifies whether to display stage time series data (Print Code STG <u>3/</u>)

General display control Techniques:

METRIC	<u>1/ 2/</u>	Sets the English/Metric option for output
NOUTZ	<u>1/ 2/</u>	Sets the time zone number for output
NOUTDS	<u>1/ 2/</u>	Specifies if output should be in daylight or standard time

Techniques Not Used For Forecasting

Debug control techniques:

PPDEBUG	<u>1/ 2/</u>	Sets the debug codes for Preprocessor Component routines
PPTRACE	<u>1/ 2/</u>	Sets the trace level for Preprocessor Component routines

Notes:

- 1/ The Technique is used by other Functions and will apply to all Functions unless changed between COMPUTE commands.
- 2/ Techniques are either Universal or Nonuniversal depending on whether their values can be changed during the COMPUTE of a Function. Universal Techniques are assigned a single value for the COMPUTE of a Function. Nonuniversal Techniques can be changed within the COMPUTE of a Function.

All Techniques are Universal.

- 3/ The following table relates the Print Codes to RRS data types:

<u>Print Code</u>	<u>Data Type Code</u>	<u>Description</u>
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Instantaneous Discharge

INQ	DQIN	Diversion flow observed and projected
RES	RQOT	Reservoir outflow observed and projected
RES	RQIN	Reservoir inflow observed
RES	RQSW	Reservoir discharge spillway observed
INQ	QIN	River discharge observed
INM	PCFD	Diverted flow from channel percent

Instantaneous Height

RES	PELV	Reservoir pool elevation observed
STG	STG	River stage observed
RES	TWEL	Tail water stage observed
RES	LELV	Lake elevation observed
RES	LAKH	Lake height above specified datum
RES	TWSW	Spillway tailwater observed
RES	FBEL	Forebay elevation observed

Instantaneous Snow and Miscellaneous Data

INM	AESC	Snow cover areal extent observed
INM	SNWE	Snow cover water-equivalent observed
INM	SNOG	Snow cover depth observed
INM	FGDP	Frost depth observed
INM	ICET	Ice thickness observed
INM	ZELV	Freezing level

Instantaneous Other Reservoir Data

RES	NFBD	Flash boards down observed and projected
RES	RSTO	Reservoir storage observed
RES	GATE	Gate openings observed and projected
RES	GTCS	Gate control switch

Mean Discharge

<u>Print</u>	Data	
<u>Code</u>	<u>Type</u>	<u>Description</u>
MNQ	DQME	Diversion flow observed and projected
RES	RQME	Reservoir outflow observed and projected
MNQ	QME	River discharge observed
RES	RQIM	Reservoir inflow observed
RES	RQGM	Reservoir discharge power generation observed

Mean Snow Data

MNM	PTPS	Fraction snowfall
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