Save and Recall Command Group

Save and Recall Overview

You use the commands in the Save and Recall Command Group to store and retrieve internal waveforms and settings. When you save a setup, you save all the settings of the oscilloscope. When you recall a setup, the oscilloscope restores itself to the state that it was in when you originally saved that setting.

Save and Recall Commands

Command	Description
*RCL	Restores the state of the oscilloscope from a copy of the setting stored in memory.
*SAV	Stores the current oscilloscope state to a specified memory location
*SDS	Changes the specified setup to reference the factory setup instead of the user setup
DELEte:SETUp	Removes stored setups from memory and initializes the location with the factory default setups
DELEte:WAVEform	Deletes (one or all) of the stored reference waveforms from memory
FACtory	Resets the oscilloscope to the factory default settings
RECAll:SETup	Recalls saved instrument settings
RECAll:WAVEform	Recalls a stored waveform to a reference location
SAVe:SETup	Saves the current front-panel setup to a specified memory location or file
SAVe:WAVEform	Saves a waveform to one of four reference memory locations or a mass storage file
SAVe:WAVEform:FILEFormat?	Returns the current format used for saving waveforms
SAVe:WAVEform:FILEFormat	Sets the format for saved waveforms
SETUp:NAMe?	Returns the user-defined setup label
SETUp:NAMe	Sets the user-defined setup label

*RCL

Description

This command (no query form) restores the state of the oscilloscope from a copy of the settings stored in memory (The settings are stored using the *SAV command). If 'factory' is referenced (by specifying '0'), the factory default values will be restored. This command is equivalent to RECAll:SETUp and performs the same function as selecting Instrument Setup from the File menu and then choosing the Recall Setups tab.

Group

Save and Recall

Related Commands

DELEte:SETUp (see page 306), FACtory (see page 308), *LRN? (see page 276), RECAll:SETUp (see page 309), *RST (see page 325), *SAV (see page 304), SAVe:SETUp (see page 311)

Syntax

```
*RCL <NR1>
```

Argument

- `<NR1>`

  This specifies a setup storage location value, ranging from 0 through 10. Using an out-of-range value causes an execution error.

Example

```
*RCL 3
```

This command restores the oscilloscope from a copy of the settings stored in memory location 3.

*SAV

Description

This command (no query form) stores the state of the oscilloscope to a specified memory location. You can later use the *RCL command to restore the oscilloscope to this saved state. This is equivalent to selecting Instrument Setup from the File menu and then choosing the Save Setups tab.

Group

Save and Recall

Related Commands

*RCL (see page 303), RECAll:SETUp (see page 309), SAVe:SETUp (see page 311)

Syntax

```
*SAV <NR1>
```

Argument

- `<NR1>`

  This specifies a location in which to save the state of the scope. Location values range from 1 through 10. Using an out-of-range location value causes an execution error. Any settings that have been stored previously at this location will be overwritten.

Example

```
*SAV 2
```

This command saves the current oscilloscope state in memory location 2.

*SDS

Description

This command (no query form) changes the specified setup to reference the factory setup instead of the specific user setup slot. The content of the setup slot is unchanged, but the data will no longer be accessible to you. This command is equivalent to selecting Instrument Setups from the File menu, choosing the Recall Setups tab and then clicking the Default button.

Group

Save and Recall

Related Commands

DELEte:SETUp (see page 306)

Syntax

```
*SDS <NRf>
```

Argument

- `<NR1>`

  This specifies a user setup location that will be redirected. The setup in that position, which ranges from 1 through 10, will now refer to the Factory setup when recalled.

Example

```
*SDS 2
```

This command changes setup slot 2 to reference the factory setup.

DELEte:SETUp

Description

This command (no query form) changes the setup to reference the factory setup instead of the specific user setup slot. The content of the setup slot is unchanged but the data will no longer be accessible to you. This command is equivalent to selecting Instrument Setup from the File menu, choosing the Delete tab and then clicking the Delete button.

Note: The setup information cannot be recovered once it has been deleted.

Group

Save and Recall

Related Commands

*RCL? (see page 303), RECall:SETUp (see page 309), *RST (see page 325), *SAV (see page 304), SAVe:SETUp (see page 311), *SDS (see page 305)

Syntax

```
DELEte:SETUp {ALL|<NR1>}
```

Arguments

- `ALL`

  This specifies to delete all the stored setups.

- `<NR1>`

  This specifies a setup storage location to delete. Setup storage location values range from 1 through 10; Using an out-of-range value causes an error.

Example

```
DELEte:SETUp ALL
```

This command removes all stored setups. All ten storage locations are initialized to the factory default setup.

DELEte:WAVEform

Description

This command (no query form) deletes one or all stored reference waveforms from memory. This command is equivalent to selecting Reference Waveforms from the File menu and choosing Reference Setup from the drop-down list (when deleting individual reference waveforms) or selecting Delete All Refs from the File menu (when deleting all reference waveforms).

Group

Save and Recall

Related Commands

RECAll:WAVEform (see page 310), Save:WAVEform (see page 312)

Syntax

```
DELEte:WAVEform {ALL|REF<x>}
```

Arguments

- `ALL`

  This specifies to delete all the stored reference waveforms.

- `REF<x>`

  This specifies to delete one of the reference memory locations. Reference memory location values range from 1 through 4.

Example 1

```
DELEte:WAVEform ALL
```

This command removes all waveforms stored in reference memory.

Example 2

```
DELEte:WAVEform REF2
```

This command removes the waveform stored at REF2.

FACtory

Description

This command (no query form) resets the oscilloscope to factory default settings. This command is equivalent to pressing the **DEFAULT SETUP** button located on the front panel.

Group

Save and Recall

Related Commands

*PSC (see page 323), *RCL? (see page 303), RECall:SETUp (see page 309), *RST (see page 325), *SAV (see page 304), SAVe:SETUp (see page 311)

Syntax

```
FACtory
```

Arguments

None

Example

```
FACtory
```

This command resets the oscilloscope settings to factory defaults:

- Clears the Event Status Enable Register.
- Clears the Service request Enable Register.
- Sets the Device Event Status Enable Register to 2555.
- Sets the Power On Status Clear Flag to TRUE
- Purges all defined aliases.
- Enables all Command Headers.
- Sets the macro defined by *DDT to a "zero-length field."
- Clears the pending operation flag and associated operations.

This command does not reset the following:

- The state of the GPIB (IEEE Std 488.1-1987) interface.
- The selected GPIB address.
- Calibration data that affects device specifications.
- Protected user data.
- Stored settings.
- The current password (if implemented).

RECAll:SETUp

Description

This command (no query form) restores a stored or factory front-panel setup of the oscilloscope from a copy of the settings stored in memory. If 'factory' is referenced (by specifying '0'), the factory default values will be restored. This command is equivalent to *RCL and performs the same function as selecting Instrument Setup from the File menu and then choosing the Recall Setups tab.

Group

Save and Recall

Related Commands

FACtory (see page 308), *RCL (see page 303), *RST (see page 325), *SAV (see page 304), SAVe:SETUp (see page 311)

Syntax

```
RECAll:SETUp {FACtory|<NR1>|<file path>}
```

Arguments

- `FACtory`

  This specifies to restore the factory setup.

- `<NR1>`

  This specifies a setup storage location to restore. Setup storage location values range from 0 through 10; Using an out of range value causes an error (222, "Data out of range").

- `<file path>`

  This is the location from where the setup will be recalled.

  <file path> is a quoted string that defines the file name and path. Input the file path using the form <drive>/<dir>/<filename>. <drive> and one or more <dir>s are optional. If you do not specify them, the instrument will read the file from the default directory. <filename> stands for a filename of up to 128 characters (use of wildcard characters in filenames is not supported). Filename extensions are not required but are highly recommended.

Example 1

```
RECAll:SETUp FACtory
```

This command recalls (and makes current) the front-panel setup to its factory defaults.

Example 2

```
RECAll:SETUp 2
```

This command recalls the front panel setup from setup 2.

Example 3

```
RECAll:SETUp "TEK00000.SET"
```

This command recalls the front panel setup from the file `TEK00000.SET` in the default directory and on the default drive.

RECAll:WAVEform

Description

This command (no query form) recalls a stored waveform to a reference location. This command is equivalent to selecting Reference Waveforms from the File menu and then choosing Recall Wfm.

Group

Save and Recall

Related Commands

DELEte:WAVEform (see page 307), SAVe_WAVEform (see page 312)

Syntax

```
RECAll:WAVEform {<file path>|REF<x>}
```

Arguments

- `REF<x>`

  This specifies the location in internal reference memory from where the waveform is recalled. Reference memory location values range from 1 through 4.

- `<file path>`

  This is the location from where the waveform will be recalled.

  <file path> is a quoted string that defines the file name and path. Input the file path using the form <drive>/<dir>/<filename>. <drive> and one or more <dir>s are optional. If you do not specify them, the instrument will read the waveform from the default directory. <filename> stands for a filename of up to 128 characters (use of wildcard characters in filenames is not supported). Filename extensions are not required but are highly recommended.

Example

```
RECAll:WAVEform "TEK00000.WFM",REF1
```

This command recalls the waveform stored in the file named TEK00000.WFM to reference location 1.

SAVe:SETUp

Description

This command (no query form) saves the current front-panel setup into the specified memory location or file. This is equivalent to selecting Instrument Setup from the File menu and then choosing the Save Setups tab.

Group

Save and Recall

Related Commands

*RCL (see page 303), RECAll:SETUp (see page 309),*SAV (see page 304)

Syntax

```
SAVe:SETUp {<file path>|<NR1>}
```

Arguments

- `<file path>`

  This is the location from where the waveform will be recalled.

  <file path> is a quoted string that defines the file name and path. Input the file path using the form <drive>/<dir>/<filename>. <drive> and one or more <dir>s are optional. If you do not specify them, the instrument will read the waveform from the default directory. <filename> stands for a filename of up to 125 characters, followed by a period (".") and the three-character extension "`SET`". The oscilloscope will generate an error if you use any other extension for saving a setup.

- `<NR1>`

  This specifies a location for saving the current front-panel setup. The front-panel setup value ranges from 1 to 10. Using an out-of-range value causes an execution error. Any settings that have been stored previously at this location will be overwritten.

Example 1

```
SAVe:SETUp 5
```

This command saves the current front-panel setup in memory location 5.

Example 2

```
SAVe:SETUp "TEK00000.SET"
```

This command saves the current front-panel setup in the file `TEK00000.SET` in the default directory and on the default drive.

SAVe:WAVEform

Description

This command (no query form) saves a waveform to one of four reference memory locations or a mass storage file. This command is equivalent to selecting Reference Waveforms from the File menu and then choosing Save Wfm from the drop-down list.

Group

Save and Recall

Related Commands

DELEte:WAVEform (see page 307), RECAll:WAVEform (see page 310)

Syntax

`SAVe:WAVEform <wfm>,{<file path>|REF<x>}`

Arguments

- `<wfm>`

  This is the waveform that will be saved. Valid waveforms include CH<x>, MATH<y>, and REF<x>.

- `REF<x>`

  This specifies the location in internal reference memory to where the waveform is stored.

- `<file path>`

  This is the location to where the waveform is stored.

  <file path> is a quoted string that defines the file name and path. Input the file path using the form <drive>/<dir>/<filename>. <drive> and one or more <dir>s are optional. If you do not specify them, the instrument will read the waveform from the default directory. <filename> stands for a filename of up to 125 characters, followed by a period (".") and the three-character extension. Internal format waveforms use the .wfm extension for spreadsheet format files or the .dat extension for MathCad format files. The oscilloscope will generate an error if you use any other extension for saving a waveform.

Example 1

```
SAVe:WAVEform MATH2,REF1
```

This command saves the Math2 waveform in reference memory location2.

Example 2

```
SAVe:WAVEform MATH1,"TEK0000.WFM"
```

This command saves the Math1 waveform to the file `TEK00000.WFM` in the default directory and on the default drive.

SAVe:WAVEform:FILEFormat

Description

This command specifies or returns the file format for saved waveforms. Waveform header and timing information is included in the resulting file of non-internal formats. The instrument saves DPO waveforms as a 500x200 matrix, with the first row corresponding to the most recently acquired data. The values specified by DATa:STARt and DATa:STOP determine the range of waveform data to output. In the event that DATa:STOP value is greater than the current record length, the current record length determines the value output.

This command is equivalent to selecting Export Setup from the File menu, clicking the Waveforms tab and then choosing the desired waveform file format from the Data destination drop-down list. Note that you choose the waveform file format after first selecting Select for Export from the File menu and then choosing Waveform (data) from the resulting drop-down list.

Group

Save and Recall

Related Commands

DATa:STARt (see page 473), DATa:STOP (see page 474)

Syntax 1

```
SAVe:WAVEform:FILEFormat {INTERNal|MATHCad|MATLab|SPREADSHEETCsv|SPREADSHEETTxt}
```

Syntax 2

```
SAVe:WAVEform:FILEFormat?
```

Arguments

- `INTERNal`

  This specifies that waveforms are saved in internal format, using a .wfm filename extension. These files can be recalled as reference waveforms.

- `MATHCad`

  This specifies that waveforms are saved in MathCad format, using a .dat filename extension. When saving in this format, waveform values are delimited with new lines. MathCad format enables easy import of waveform data into MathCad or Matlab.

  For FastAcq waveforms, data is imported as a matrix. For these formats, waveform header and timing information is saved in a separate file. MathCad format header files use a _hdr.dat extension.

- `MATLab`

  This specifies that waveforms are saved in Matlab format, using a .dat filename extension. When saving in this format, waveform values are delimited with new lines. Matlab format enables easy import of waveform data into MathCad or Matlab.

  For FastAcq waveforms, data is imported as a matrix. For these formats, waveform header and timing information is saved in a separate file. Matlab format header files use a _hdr.dat extension.

- `SPREADSHEETCsv`

  This specifies that waveform data is saved in a format that contains comma delimited values. These waveform data files are named using the .csv filename extension. Saving waveforms in CSV format enables spreadsheet programs to import the data.

- `SPREADSHEETTxt`

  This specifies that waveform data is saved in a format that contains tab delimited values. These waveform data files are named using the .txt filename extension. Saving waveforms in this format enables spreadsheet programs to import the data.

Example 1

```
SAVe:WAVEform:FILEFormat INTERNal
```

This command specifies that the internal file format is the format used for saving waveforms.

Example 2

```
SAVe:WAVEform:FILEFormat?
```

This query might return: `SAVE:WAVEFORM:FILEFORMAT INTERNAL`, indicating that waveforms are saved using the internal format.

SETUp:NAMe

Description

This command sets and queries a Setup Label that you define. This command is equivalent to selecting Instrument Setup from the File menu, choosing the Save Setups tab and then adding a meaningful label to the selected setup.

Group

Save and Recall

Related Commands

SAVe:SETUp (see page 311)

Syntax 1

```
SETUp:NAMe <NR1>,<QString>
```

Syntax 2

```
SETUp:NAMe? <NR1>
```

Arguments

- `<NR1>`

  This specifies a location in which the Setup Label is stored. Location values range from 1 through 10.

- `<QString>`

  This is a string containing the Setup Label.

Example 1

```
SETUp:NAMe 1 "My Setup"
```

This command changes the Setup Label for internal setup slot 1 to "My Setup".

Example 2

```
SETUp:NAMe? 2
```

This query might return `:SETUP:NAME 2,"My Setup"`, indicating the Setup Label that you defined for internal setup slot 2.